



BCS Digital Industries Apprenticeship

Standard Specific Guidance for Training Providers

Level 4 Software Tester

Version 2.0

May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Change History

Any changes made to the project shall be clearly documented with a change history log. This shall include the latest version number, date of the amendment and changes made. The purpose is to identify quickly what changes have been made.

Version Number and Date	Changes Made
V1.0 September 2017	Documented Created
V2.0 May 2018	Removed typical evidence from all competencies, update to work activities and proficiencies, removal of table 1 knowledge standards

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA^{plus} © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Contents

Purpose of this Document	4
Introduction	4
The Software Tester Apprentice.....	5
Business Proficiencies	5
Knowledge Standards, Technical Competence and Behaviour and Relationship Standards.....	6
Table 1 – Software Tester – Knowledge Standards	Error! Bookmark not defined.
Table 2 – Software Tester – Technical Competency Standards	7
Table 3 – Generic Behaviour and Relationship Standards	24
Software Tester Apprentice Templates.....	28
Software Tester Template 1 – Training and Development Plan.....	29
Software Tester Template 2 – Weekly Diary	35
Software Tester Template 3 – Periodic Workplace Competence Assessment and Remedial Action Plan.....	36
Software Tester Template 4 – The Employer Reference.....	40
Software Tester Template 5 – Declaration and Evidence Checklists for the Completion of the Summative Portfolio	65
Software Tester Template 6 – End-Point Assessment Readiness Check.....	89

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIAplus © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Purpose of this Document

The purpose of this document is to provide useful information and suggested supporting documentation specific to the Software Tester Apprenticeship. It should be read in conjunction with the BCS General Guidance for Apprentices, Employers and Training Providers document and is designed to give training providers some tools to help them build their own programme from training plan through to end-point assessment.

This guide will provide:

- supporting information around how to help the Software Tester apprentice to meet and go beyond the standard;
- a number of useful documents to support the training provider in meeting their responsibilities in managing the apprenticeship from training plan through to the end-point assessment;
- evidence checklists to help the training provider support the apprentice in completing their summative portfolio;
- a template for completing the employer reference.

Introduction

The BCS Level 4 Software Tester Apprenticeship is one of the suite of Digital Industries Apprenticeships that have been designed by the industry to address skills shortages and meet the ever-changing needs of UK employers.

The General Guidance for Apprentices, Employers and Training Providers provides the broad view on how to run an apprenticeship programme to the BCS Digital Industries Standard. The collection of tables and templates contained within this document has been designed to give training providers the tools to build their programme and to assist them in helping apprentices and employers towards the successful completion of each element of the end-point assessment.

The areas where a training provider should be involved in ensuring a successful outcome to the apprenticeship are:

- mapping and assessing work against the standard;
- advising the employer and the apprentice on which knowledge modules, vendor or professional certificates and other relevant training and activities are most appropriate for their requirements, and agree a suitable training plan;
- assisting the apprentice with applying knowledge in the workplace;
- acting as an advisor to the apprentice and the employer to ensure the programme remains on track and any concerns are addressed;
- helping the apprentice to select evidence for their summative portfolio;
- supporting the apprentice through the synoptic project;
- confirming the apprentice's readiness for the end-point assessment.

The following series of checklists can be used by the training provider to help manage the process through to completion. Training providers may substitute their own processes and

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

documentation as they see fit in order to effectively manage their key areas of responsibility as set out above.

The Software Tester Apprentice

The primary roles of a Software Tester are to:

- ensure that software operates as intended;
- design and prepare test plans and conduct software testing as appropriate to ensure that software is fit for purpose;
- document and report the results of testing activities;
- have a good understanding of the software lifecycle and software development practices.

Job titles may be different across different organisations, so the role may also be referred to as software tester and software test analyst.

Business Proficiencies

The proficiencies that should be demonstrated by an apprentice Software Tester are listed below.

Business skills

The apprentice can:

- demonstrate an analytical and systematic approach to issue resolution;
- take the initiative in identifying and negotiating appropriate personal development opportunities;
- demonstrate effective communication skills;
- appreciate the wider business context, and how their role relates to other roles and to the business of the employer or client.

Complexity

The apprentice can:

- apply a methodical approach to issue definition and resolution.

Autonomy

The apprentice can:

- use discretion in identifying and responding to complex issues and assignments.

Influence

The apprentice:

- can interact with and influence colleagues;
- has working-level contact with customers, suppliers and partners.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Knowledge Standards, Technical Competence and Behaviour and Relationship Standards

Tables 1, 2 and 3 contain details of the topics that the training provider may decide to cover in their development plans and scheduled work activities in order to stretch the apprentice.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Table 1 – Software Tester – Technical Competency Standards

The competency standards have been defined to demonstrate that the knowledge learnt has been applied in real work tasks, activities and projects in a business environment.

Competencies are assessed throughout the apprenticeship through a combination of the employer reference, the synoptic project and a summative portfolio completed by apprentices from records of the work activities in which they have been involved.

The training provider should assist the employer to identify suitable work tasks, activities and projects within the scope of their normal business activities for the apprentice to practice what they have learnt and to demonstrate the competencies below.

The BCS apprenticeship is mapped to an internationally recognised skills framework and to work activities in which a Software Tester apprentice would be involved.

The following table sets out these competencies and the expected requirements against the work activities that might be demonstrated at and beyond the minimum expectation. The format is explained below:

Competency standard	Expected requirement	Work activities demonstrating the minimum expected level of competence
<i>This column contains the competency as it is listed in the apprenticeship standard.</i>	<i>This column shows the expected requirements listed in the occupational brief for a successful outcome.</i>	<p><i>This column shows recognised work activities that demonstrate that the apprentice is meeting the expected requirement.</i></p> <p><i>The apprentice should be able to demonstrate all of these activities.</i></p>

The Software Tester competency standard, requirements and activities demonstrating competence follow:

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.</p>	<p>Apprentices should be competent in implementing a wide range of software testing procedures for their employer context to achieve the desired test outcomes (desktop, web, mobile apps, games, business solutions etc) to identify, prioritise and correct software defects before release.</p> <p>Apprentices should be familiar with the range of industry standard software test management and automation tools that are available and those for their employer context.</p> <p>a. causes of defects b. role of software testing c. software testing processes, procedures, tools and techniques d. the collation and documentation of information relating to software testing activities e. the range of software testing activities commonly implemented f. test levels: • component testing • integration testing • system testing g. acceptance testing</p>	<p>Uses normal operating facilities, diagnostic tools, technical manuals, test scripts and systems documentation to identify, diagnose and report on system errors.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	Apprentices need to be able to analyse software requirements so that they understand the intended purpose of software being developed. They need to be able to review and validate that each requirement can be tested for so that they can define tests and test conditions, identifying any requirement ambiguities ensuring that they are fixed early in the development life cycle. a. test analysis and design b. reviewing functional software requirement specification (SRS) documents c. requirements testing d. software tests, test conditions and exit criteria for each requirement e. testing for security	Reviews requirements and specifications, and defines test conditions. Defines test conditions for given requirements.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Designs simple test strategies for non- complex projects.</p>	<p>Apprentices should be able to design simple test strategies.</p> <p>A test strategy defines the testing approach to be taken, and identifies the objectives of testing and how they will be achieved.</p> <p>The test strategy is usually defined in a document as an early deliverable in software testing.</p> <p>The components of the test strategy, typically including:</p> <ul style="list-style-type: none"> •testing scope • the testing process and the level of testing • test type and the testing approach • test environment setup • test data requirements • test management and automation tools • risk identification and analysis • release control 	<p>Designs and produces re-usable test scripts (including simple automated test scripts and packages), procedures and regression test packs (with expected results) to test new and amended software. Produces plans to test the effect of new and changed software on existing systems.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
Analyses test requirements and designs and prepares a test plan.	<p>Apprentices need to be able to interpret and understand test plans and can create a test plan from scratch.</p> <p>The test plan serves as the primary means of communication with members of the software testing project team, testers, peers, managers and other stakeholders.</p> <p>The test plan also helps to manage change during early phases of the project when, as we gather more information, we need to revise the plan.</p> <p>a. requirements analysis b. test planning process c. creating a test plan d. the components of a test plan:</p> <ul style="list-style-type: none"> • test scenarios/test objectives that will be validated. • test schedules • roles and responsibilities • deliverables • test environments • tools • defect management • risks and risk management • completion and exit criteria 	Analyses test requirements, designs and builds simple test case suites, test scripts, and test procedures, with expected results.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Designs and builds test cases, test scripts, and test procedures, with expected results.</p>	<p>Test cases are documented while the software development team builds the software system that help test the system once it is ready.</p> <p>Test cases focus on how to test each requirement in the software requirements specification and defines the expected results.</p> <ul style="list-style-type: none"> a. functional and non-functional testing b. creating detailed test cases and test scripts c. test conditions for test cases d. the expected results for each test case 	<p>Designs test cases and creates test scripts and supporting data, working to the specifications provided. Understands techniques for prioritising tests (e.g. based upon risk or the area of change). Optimises value of testing within limited time-boxes.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Develops and collects representative and realistic test data.</p>	<p>Preparing realistic test data is a core part of defining the test environment setup. Software testers should create their own test data additional to the existing standard production data.</p> <p>Test data should be defined as the ideal data set in terms of testing quality, cost and time.</p> <p>Test cases need input data for any kind of test that is to be implemented.</p> <p>Testers should check and update the test data before execution of any test case</p> <ul style="list-style-type: none"> a. test data types b. test data preparation c. the testers responsibility in creating their own test data according to testing needs d. the role of common test data e. cost, quality and time constraint for preparing test data and running tests. 	<p>Applies appropriate analysis methods and interprets the results.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Conducts a range of different software testing types (including Unit Testing, Integration Testing, Functional and Non- Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing); interpreting and executing sets of moderately complex test scripts using agreed methods and standards.</p>	<p>Test execution includes the execution of test cases or test scripts, manually or in an automated way, the logging of test results, comparison of the expected and actual results, reporting the incidents and retesting the fixed bugs.</p> <p>Test execution follows the defined process of the test execution activities.</p> <ul style="list-style-type: none"> a. software testing techniques b. executing different types of test as defined in the testing plan c. assigning the test cases in each test suite to testers for execution d. defect and bug reporting e. reporting status, and dynamic planning and prioritisation f. report testing test cycle findings and status. 	<p>Checks test results, and documents test failures and successes compared with pre-determined criteria, in accordance with agreed standards.</p> <p>Uses in-depth technical analysis of both functional and non-functional specifications (such as reliability, efficiency, usability, performance and portability) to determine test requirements. Specifies requirements for environment, data, resources and tools.</p>

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA^{plus} © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Accurately records the outcomes of test activities and maintains accurate test records and reports.</p>	<p>In software testing there are two outcomes, a test pass or fail.</p> <p>If a test fails then the details need to be recorded and archived so that they can be reviewed quickly and accurately to analyse the error that caused the test to fail.</p> <p>If a test passes the test pass record becomes the evidence that the test was executed and passed.</p> <ul style="list-style-type: none"> a. documenting testing activities and test outcomes b. recording test executions, test passes and test failures c. logging new defects into the defect tracking system d. user acceptance testing results should be recorded including the user interaction leading up to a test failure 	<p>Records explicit details of failing test cases, such that delivery teams can understand and reproduce issues found.</p> <p>Checks test results, and documents test failures and successes compared with pre-determined criteria.</p> <p>Monitors progress, and documents test failures and successes compared with pre-defined criteria, creating traceability records, from test cases back to requirements, in accordance with agreed standards.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
Assesses test results against expected results and acceptance criteria and through traceability to requirements.	<p>It is important to assess test results to identify any arising defects or bugs.</p> <p>There are a wide variety of causes of software defects (errors and bugs) which may cause software not to operate as intended.</p> <ul style="list-style-type: none"> a. determining and reporting root causes for test failures b. compares actual results with expected results c. report discrepancies as incident 	Checks test results, and documents test failures and successes compared with pre-determined criteria, in accordance with agreed standards.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
Presents and communicates results effectively using appropriate communication styles and media.	<p>Test monitoring provides visibility and progress about test activities.</p> <p>Test reporting is concerned with summarizing information about the nature of the software object under test and the weather test criteria are being met.</p> <ul style="list-style-type: none"> a. monitoring test results and test progression b. present software test results c. communicates software test results to different stakeholders 	Arranges, prepares and facilitates client / users meetings and presents issues and solutions both orally and in writing.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Operates the organisation's software testing tools effectively and follows procedures and techniques correctly.</p>	<p>Software testing tools can increase efficiency and reliability of software testing and speed up the process in order to more reliably meet deadlines.</p> <p>There are a wide range of open source and vendor software testing tools in the market. The tools are divided into different categories as follows:</p> <ul style="list-style-type: none"> • Test management tools • Functional testing tools • Load testing tools • Bug tracking tools <p>There are also a range of Automation Testing Tools</p> <ol style="list-style-type: none"> a. the classification of the major types of software test tools b. an overview of the major functional testing tools and their application c. overview of test management and bug tracking tools d. how to perform automated testing e. benefits and risks of automated testing f. factors for choosing a particular tool 	<p>Uses normal operating facilities, diagnostic tools, technical manuals, test scripts and systems documentation to identify, diagnose and report on system errors.</p>

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Complies with relevant legislation and internal/external standards related to software testing and software security.</p>	<p>Apprentices should be aware of the standards and procedures to follow during software testing, as well as sector specific legislation and standards.</p> <p>Also, they should be aware of code of ethics for accessing private and sensitive data.</p> <p>Software testing is defined in BS 7925-1 as the "process of exercising software to verify that it satisfies specified requirements and to detect errors".</p> <ul style="list-style-type: none"> a. organisational standards for software testing b. sectoral standards and legislation (e.g. insurance, food, health, automotive etc) c. National and international standards for software testing: <ul style="list-style-type: none"> • the International Software Testing Standard - ISO/IEC/IEEE29119 Software Testing • IEEE 829-2008, also known as the 829 Standard for Software and System Test Documentation • BS 7925-1 d. code of ethics for accessing private data 	<p>Interprets and executes complex test scripts using agreed methods and standards.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
<p>Advises and supports others on testing processes and procedures.</p>	<p>Apprentices should be able to inform and advise a wide range of stakeholders on software testing processes, procedures and outcomes.</p> <p>a. Inform, advise and guide others on all aspects of software testing activities, including best practice</p>	<p>Guides team members on the practices of testing and prioritises their tasks to achieve results ready for milestones.</p>

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
Completes allocated tasks in accordance with the organisation's reporting and quality systems.	Apprentices should be able to complete tasks within the organisations reporting and quality systems.	Prioritises sets of tests in order to carry out those most important within a limited timebox.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competency standard	Expected requirement	Work activities demonstrating expected level of competence
Operates within service level agreements.	Apprentices should be able to work within their organisations service level agreements (SLAs).	Uses the facilities of the tools and systems available to monitor and report on regular activities which are subject to the Service Level Management process and SLA OR OLA such as job activity, transaction processing, network activity, database activity, etc. Understands the use of service level agreement metrics. Monitors the levels of performance achieved, keeping detailed and clear metrics, and records all deviations from service levels agreed.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Criteria for demonstrating Significantly higher competencies.
Understands and applies a wide range of tools and methods.
Accurately and appropriately applies and effectively implements the right tools and methods in a variety of different situations.
A sophisticated user - fully exploits the functionality/capability of the tools and methods.
Extensive and deep understanding of different tools and methods and how and why they can be applied in different contexts.
Deals confidently and capably with a high level of interrelated and interdependent factors in their work.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Table 2 – Generic Behaviour and Relationship Standards

The behaviour and relationship standards have been defined to demonstrate that the apprentice applies the good behaviours and interpersonal skills that are needed in a business environment. Behaviours and business relationship skills are assessed throughout the apprenticeship through a combination of the employer reference, the synoptic project and a summative portfolio, which is completed by apprentices from records of the work activities in which they have been involved. The training provider could assist the apprentice by offering some additional soft skills training over and above their apprenticeship. The apprenticeship standard sets out the attributes required within the occupation brief, which can be accessed via the Apprenticeship section of www.bcs.org.

Behaviour and relationship standard	Expected requirement
Apprentices can demonstrate the full range of skills, knowledge and behaviours required to fulfil their job role	Knows what skills, knowledge and behaviours are needed to do the job well Are aware of their own strengths in the job role, and any areas for improvement Appreciate who else is important, for them to do their job and fulfil the role effectively (e.g. colleagues, managers, other stakeholders) Are aware of potential risks in the job role (e.g. security, privacy, regulatory) Use personal attributes effectively in the role, e.g. entrepreneurship Understand how the job fits into the organisation as a whole
Apprentices can demonstrate how they contribute to the wider business objectives and show an understanding of the wider business environments	Understands the goals, vision and values of the organisation Aware of the commercial objectives of the tasks/ projects they are working on Understands the importance of meeting or exceeding customers' requirements and expectations Is in tune with the organisation's culture Aware of the position and contribution of the organisation in the economy Understands the key external factors that shape the way the organisation function, e.g. regulation Knows how the organisation can gain advantage in the industry, e.g. through innovation, technology, customer service etc.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Behaviour and relationship standard	Expected requirement
<p>Apprentices can demonstrate the ability to use both logical and creative thinking skills when undertaking work tasks, recognising and applying techniques from both.</p>	<p>Logical thinking:</p> <ul style="list-style-type: none"> • Understands initial premise(s) and preconditions • Recognises the conclusion to be reached • Proceeds by rational steps • Evaluates information, judging its relevance and value • Supports conclusions, using reasoned arguments and evidence <p>Creative thinking:</p> <ul style="list-style-type: none"> • Explores ideas and possibilities • Makes connections between different aspects • Adapts ideas and approaches as conditions or circumstances change
<p>Apprentices can show that they recognise problems inherent in, or emerging during, work tasks, and can tackle them effectively.</p>	<p>Problem-solving:</p> <ul style="list-style-type: none"> • Analyses situations • Defines goals • Develops solutions • Prioritises actions • Deals with unexpected occurrences
<p>Apprentices can manage relationships with work colleagues, including those in more senior roles, customers / clients and other stakeholders, internal or external, and as appropriate to their roles, so as to gain their confidence, keep them involved and maintain their support for the task / project in hand.</p> <p>Apprentices can establish and maintain productive working relationships, and can use a range of different techniques for doing so.</p>	<p>Managing relationships:</p> <ul style="list-style-type: none"> • understands the value and importance of good relationships; • acknowledges other people’s accomplishments and strengths; • understands how to deal with conflict; • promotes teamwork by participating. <p>Customer / client relationships:</p> <ul style="list-style-type: none"> • understands their requirements, including constraints and limiting factors; • sets reasonable expectations; • understands how to communicate with them in decisions and actions; • interacts positively with them; • provides a complete answer in response to queries (transparency, full disclosure). <p>Stakeholders:</p> <ul style="list-style-type: none"> • understands who they are and what their ‘stake’ is; • prioritises stakeholders in terms of their importance, power to affect the task and interest in it;

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA^{plus} © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Behaviour and relationship standard	Expected requirement
	<ul style="list-style-type: none"> • agrees objectives.
<p>Apprentices can communicate effectively with a range of people at work, one-to-one and in groups, in different situations and using a variety of methods.</p> <p>Apprentices can demonstrate various methods of communication, with an understanding of the strengths, weaknesses and limitations of these, the factors that may disrupt it, and the importance of checking other people's understanding.</p>	<p>Intention / purpose:</p> <ul style="list-style-type: none"> • understands the purpose of communicating in a particular situation or circumstance (e.g. inform, instruct, suggest, discuss, negotiate etc.); • checks that the person / people with whom one is communicating also understand the purpose; • is sensitive to the dynamics of the situation; • is aware of anything that might disrupt the effectiveness of the communication (e.g. status, past history). <p>Method:</p> <ul style="list-style-type: none"> • understands the most appropriate method for the situation; • aware of the limitations of the chosen method, and the possible risks of miscommunication (e.g. ambiguity); • takes account of the affective dimensions of the method (e.g. body language, tone of voice, eye contact, facial expression etc.). <p>Execution:</p> <ul style="list-style-type: none"> • expresses self clearly and succinctly, but not over-simplifying; • checks that the other person / people understand what is being expressed; • takes account of the potential barriers to understanding (e.g. filtering, selective perception, information overload); • modifies the purpose and methods of communication during a situation in response to cues from the other person / people.

These attributes are difficult to measure and are subjective in nature so cannot actually guarantee that any greater level of competence or proficiency is being demonstrated. The BCS apprenticeship is mapped to the Skills Framework for the Information Age (SFIA), an internationally recognised skills framework, and to observable activities that a Software Tester apprentice working to the level of responsibility appropriate for the role should demonstrate. Accordingly, the proficiencies that should be demonstrated by an apprentice Software Tester are shown below.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA^{plus} © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency standard	Work activities demonstrating expected level of proficiency	Work activities demonstrating competence beyond the minimum expected
Business skills	<p>Demonstrates an analytical and systematic approach to issue resolution.</p> <p>Takes the initiative in identifying and negotiating appropriate personal development opportunities.</p> <p>Demonstrates effective communication skills.</p> <p>Appreciates the wider business context, and how their role relates to other roles and to the business of the employer or client.</p>	<p>Undertakes work that is more complex, more critical or more difficult.</p> <p>Works independently and takes high level of responsibility.</p> <p>Independently demonstrates an ability to extend or enhance their approach to work and the quality of outcomes.</p> <p>Doesn't just solve the problem but explores creative or innovative options to do it better, more efficiently, more elegantly or to better meet customer needs.</p>
Complexity	<p>Applies a methodical approach to issue definition and resolution.</p>	<p>Shows strong project management skills, in defining problem, identifying solutions and making them happen.</p> <p>Drives solutions – with a strong goal focused and appropriate level of urgency.</p> <p>Demonstrates a disciplined approach to execution, harnessing resources effectively.</p>
Influence	<p>Interacts with and influences colleagues.</p> <p>Has working level contact with customers, suppliers and partners.</p>	<p>Internally works alone, 1:1, in a team and across the company with colleagues at all levels.</p> <p>Externally works with customers, suppliers and partners in a variety of situations.</p>
Autonomy	<p>Uses discretion in identifying and responding to complex issues and assignments.</p>	<p>Reads situations, adapts behaviours and communicates appropriately for the situation and the audience.</p> <p>Can be trusted to deliver, perform and behave professionally, manages and delivers against expectations, proactively updates colleagues and behaves in line with the highest values and business ethics.</p> <p>Actively inspires and leads others, takes others with them, leads by example.</p>

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Apprentice Templates

The following templates are designed to support the training provider, and will take them from training and development planning, through to the end-point assessment readiness check. As with the tables above they can be used by the training provider to help them manage the process through to completion, although training providers may also substitute their own processes and documentation as they see fit in order to effectively manage their programme.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Template 1 – Training and Development Plan

Apprentice details

Name	
ULN number	

Employer details

Contact name	
Company name	
Company address	

Training provider details

Contact name	
Company name	
Company address	

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Role mapping against the Software Tester standard

For each area of technical and behavioural competence an overall evaluation should be provided on a three-point scale to show how often this competence is required during the normal work carried out by the employer:

- **critical** – this competence is applied most of the time;
- **desirable** – this competence is applied some of the time;
- **occasional** – this competence is rarely required.

This evaluation could form the basis of an ongoing review with the apprentice on a regular basis.

Workplace competence map

The template shows the type of activities that are identified in the apprenticeship standard for Software Tester as demonstrating the required competencies being applied in the workplace.

It is recognised that there are differences between the types of work carried out by different employers so this template provides the opportunity to include any other activity that demonstrates the apprentice's competence during their normal duties.

The tables below could be used to make an evaluation of the apprentice's work environment and detail the work activities that a competent apprentice should be able undertake. This activity should then lead to a discussion to identify any gaps with the employer and make a plan to redress the balance.

In the normal course of work, is the apprentice required to:	Critical	Desirable	Occasional
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designs simple test strategies for non-complex projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses test requirements and designs and prepares a test plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Designs and builds test cases, test scripts, and test procedures, with expected results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develops and collects representative and realistic test data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducts a range of different software testing types (including Unit Testing, Integration Testing, Functional and Non-Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing);	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

interpreting and executing sets of moderately complex test scripts using agreed methods and standards.			
Accurately records the outcomes of test activities and maintains accurate test records and reports.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assesses test results against expected results and acceptance criteria and through traceability to requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presents and communicates results effectively using appropriate communication styles and media.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operates the organisation's software testing tools effectively and follows procedures and techniques correctly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complies with relevant legislation and internal/external standards related to software testing and software security.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advises and supports others on testing processes and procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completes allocated tasks in accordance with the organisation's reporting and quality systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operates within service level agreements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please add any other activities you think demonstrate the apprentice's competence in this area.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What is your overall evaluation of the apprentice's opportunity to demonstrate the technical competencies in the employer's normal workplace environment?

Please continue on a separate sheet if required.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Technical competence development plan

The following template may be used to describe how to ensure that the apprentice will be given the opportunity to demonstrate each of the required technical competencies stated in the Software Tester standard.

Competency requirement to meet the standard	How will this be ensured?	Responsibility (employer or training provider)?
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.		
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.		
Designs simple test strategies for non-complex projects.		
Analyses test requirements and designs and prepares a test plan.		
Designs and builds test cases, test scripts, and test procedures, with expected results.		
Develops and collects representative and realistic test data.		
Conducts a range of different software testing types (including Unit Testing, Integration Testing, Functional and Non-Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing); interpreting and executing sets of moderately complex test scripts using agreed methods and standards.		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Accurately records the outcomes of test activities and maintains accurate test records and reports.		
Assesses test results against expected results and acceptance criteria and through traceability to requirements.		
Presents and communicates results effectively using appropriate communication styles and media.		
Operates the organisation's software testing tools effectively and follows procedures and techniques correctly.		
Complies with relevant legislation and internal/external standards related to software testing and software security.		
Advises and supports others on testing processes and procedures.		
Completes allocated tasks in accordance with the organisation's reporting and quality systems.		
Operates within service level agreements.		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Professional development activities plan

BCS has defined a number of professional development activities that support wider professional and career development. These activities have been associated with the various levels of responsibility, and the activities listed in the table below represent those that are appropriate for a Software Tester apprentice.

Training providers may wish to engage in assisting the apprentice in some of these activities as they can contribute towards the portfolio of evidence. The recommended activities include those shown below.

Professional development activities	Appropriate to the role	Agreed with apprentice and employer
Participating in group activities inside or outside the working environment that can assist with the development of interpersonal skills.	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking unpaid activities that can help to develop professional skills or offer additional insight into, or understanding of, their working role.	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking learning in subjects relevant to, but not directly related to, their role (e.g. mentoring skills, cultural awareness and diversity training), perhaps through self-study or evening classes.	<input type="checkbox"/>	<input type="checkbox"/>
Gaining basic knowledge of the employing organisation, its business, structure, culture, products/services, operations and terminology.	<input type="checkbox"/>	<input type="checkbox"/>
Gaining knowledge of IT activities in the employing organisation external to their function.	<input type="checkbox"/>	<input type="checkbox"/>
Exploring a topic that is not part of their normal responsibilities, and presenting findings to colleagues and/or management.	<input type="checkbox"/>	<input type="checkbox"/>
Attending meetings, seminars and workshops organised by a professional body, and reading published material such as journals and web content.	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking learning and practice in the techniques of team and collaborative working. Gaining an understanding of the underlying concepts.	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking learning and practice in oral and written communications, including report writing and presentations.	<input type="checkbox"/>	<input type="checkbox"/>

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Template 2 – Weekly Diary

Week number	Activities completed	Competencies displayed	Supporting evidence

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Template 3 – Periodic Workplace Competence Assessment and Remedial Action Plan

This template can be used to track the competencies being applied in the workplace on a continual/periodic basis. The training provider can then discuss any gaps with the employer and make a plan to redress the balance.

Competence assessment

In the normal course of work, is the apprentice demonstrating these competencies?	Sufficiently applied to meet minimum competence standard	Start/stop/continue – what should the apprentice start, stop or continue doing in order to develop this competence?
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.	<input type="checkbox"/>	
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	<input type="checkbox"/>	
Designs simple test strategies for non-complex projects.	<input type="checkbox"/>	
Analyses test requirements and designs and prepares a test plan.	<input type="checkbox"/>	
Designs and builds test cases, test scripts, and test procedures, with expected results.	<input type="checkbox"/>	
Develops and collects representative and realistic test data.	<input type="checkbox"/>	

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Conducts a range of different software testing types (including Unit Testing, Integration Testing, Functional and Non-Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing); interpreting and executing sets of moderately complex test scripts using agreed methods and standards.	<input type="checkbox"/>	
Accurately records the outcomes of test activities and maintains accurate test records and reports.	<input type="checkbox"/>	
Assesses test results against expected results and acceptance criteria and through traceability to requirements.	<input type="checkbox"/>	
Presents and communicates results effectively using appropriate communication styles and media.	<input type="checkbox"/>	
Operates the organisation's software testing tools effectively and follows procedures and techniques correctly.	<input type="checkbox"/>	
Complies with relevant legislation and internal/external standards related to software testing and software security.	<input type="checkbox"/>	
Advises and supports others on testing processes and procedures.	<input type="checkbox"/>	
Completes allocated tasks in accordance with the organisation's reporting and quality systems.	<input type="checkbox"/>	
Operates within service level agreements.	<input type="checkbox"/>	
Please add any other activities you think demonstrate the apprentice's competence in this area.	<input type="checkbox"/>	

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester – The Employer Reference Overview

This template and guidance will assist the training provider in supporting the employer when completing the employer reference, which forms a key part of the final end-point assessment.

This employer reference template should be used to record the employer's comments against the grading minimum standards, criteria and dimensions, as set out in the Software Tester standard.

For each area of technical competence and behavioural proficiency, the employer will be asked to provide an overall evaluation on a three-point scale:

- **met** – they have observed this behaviour in the apprentice most of the time;
- **exceeded** – they have observed this behaviour in the apprentice all of the time;
- **not met** – they have not observed this behaviour in the apprentice.

They should perform an evaluation using the checkboxes, and then provide an overall evaluation of the apprentice's competence or proficiency.

The template shows the type of activities that could demonstrate the required competencies and behaviours being applied in the workplace. There are always differences between individual employers and their requirements so there is the opportunity for the employer to include any other activity that they think demonstrates the apprentice's competence. It should be completed by a senior member of the team, who is able to comment directly on work activities.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Template 4 – The Employer Reference

Apprentice details

Name	
ULN number	

Training provider details

Contact name	
Company name	
Company address	

Employer details

Name	
Company address	
Signed by:	
Print name:	
Job title:	
Date:	

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Section 1

Technical competence evaluation

Please provide your evaluation of the technical competence of the apprentice using the tables below. Under each heading is a list of activities that a competent apprentice should be able to demonstrate.

Please indicate your assessment of each competence using the checkboxes, and then provide an overall evaluation of the apprentice's technical competence

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to implement software testing procedures?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to review software requirements?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Designs simple test strategies for non- complex projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to design simple test strategies?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Analyses test requirements and designs and prepares a test plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to analyse?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Designs and builds test cases, test scripts, and test procedures, with expected results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice's competence to design and build?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Develops and collects representative and realistic test data.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to develop and collect test data?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Conducts a range of different software testing types (including Unit Testing, Integration Testing, Functional and Non- Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing); interpreting and executing sets of moderately complex test scripts using agreed methods and standards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to conduct a range of software testing types?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Accurately records the outcomes of test activities and maintains accurate test records and reports.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to record results?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Assesses test results against expected results and acceptance criteria and through traceability to requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to assess test results?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Presents and communicates results effectively using appropriate communication styles and media.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to present results?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Operates the organisation's software testing tools effectively and follows procedures and techniques correctly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice's competence to operate software testing tools?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Complies with relevant legislation and internal/external standards related to software testing and software security.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to comply with standards?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Advises and supports others on testing processes and procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to support others?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Completes allocated tasks in accordance with the organisation's reporting and quality systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice's competence to complete tasks?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester Competence

In your view, is the apprentice competent to:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Operates within service level agreements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s competence to work within SLAs?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of competence in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Section 2

Behaviours, business skills and level of responsibility evaluation

Please provide an evaluation as to the level of responsibility of the apprentice you are providing a reference for using the tables below. Under each heading is a list of proficiencies that a competent apprentice should display. Please indicate your assessment of the apprentice's proficiency using the checkboxes, and then provide an overall evaluation of the apprentice's proficiency.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency – Business Skills

In your view, is the apprentice proficient at:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Demonstrating an analytical and systematic approach to issue resolution?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking the initiative in identifying and negotiating appropriate personal development opportunities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrating effective communication skills?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appreciating the wider business context, and how their role relates to other roles and to the business of the employer or client?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s business skills?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of proficiency in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency – Complexity

In your view, is the apprentice proficient at:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Applying methodical approaches to issue definition and resolution?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s proficiency at handing complexity?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of proficiency in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency – Autonomy

In your view, is the apprentice proficient at:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Using discretion in identifying and responding to complex issues and assignments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s proficiency to work autonomously?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of proficiency in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency – Influence

In your view, is the apprentice proficient at:	The apprentice has MET this requirement	The apprentice has EXCEEDED this requirement	The apprentice has NOT MET this requirement
Interacting with and influencing colleagues?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having working level contact with customers, suppliers and partners?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **Met** – you have observed this behaviour in the apprentice most of the time.
- **Exceeded** – you have observed this behaviour in the apprentice all of the time.
- **Not Met** – you have not observed this behaviour in the apprentice.

What is your overall evaluation of the apprentice’s ability to influence?

Please give reasons, together with supporting examples, why you think the apprentice has demonstrated this level of proficiency in this area.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Section 3

Professional development

A number of professional development activities have been identified as part of the SFIA^{plus} framework to help career development. These activities have been associated with the various levels of responsibility, and the activities listed in the table below represent those that are appropriate for a Software Tester apprentice.

In your view, is the apprentice undertaking any of the following professional development activities:	The apprentice is demonstrably undertaking this activity	The apprentice is NOT demonstrably undertaking this activity
Participating in group activities inside or outside the working environment that can assist with the development of interpersonal skills?	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking pro bono (unpaid) activities that can help to develop professional skills or offer additional insight into, or understanding of, their working role?	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking learning in subjects relevant to, but not directly related to, their role (e.g. foreign language courses, mentoring skills, cultural awareness and diversity training), perhaps through self-study or evening classes?	<input type="checkbox"/>	<input type="checkbox"/>
Gaining basic knowledge of the employing organisation, its business, structure, culture, products/services, operations and terminology?	<input type="checkbox"/>	<input type="checkbox"/>
Gaining knowledge of IT activities in the employing organisation external to their function?	<input type="checkbox"/>	<input type="checkbox"/>
Exploring a topic that is not part of their normal responsibilities, and presenting findings to colleagues and/or management?	<input type="checkbox"/>	<input type="checkbox"/>
Attending meetings, seminars and workshops organised by a professional body and reading published material such as journals and web content?	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking learning and practice in the techniques of team and collaborative working. Gaining an understanding of the underlying concepts?	<input type="checkbox"/>	<input type="checkbox"/>
Undertaking learning and practice in oral and written communications, including report writing and presentations?	<input type="checkbox"/>	<input type="checkbox"/>

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA^{plus} © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

What is your overall evaluation of the apprentice's ability to undertake wider professional development?

Please continue on a separate sheet if required.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Overall impressions and constructive feedback

This section is an opportunity for you to provide written feedback outside the rigid competency structure.

It is a free text field to allow you to share general thoughts on the apprentice's performance in case you were unable to say everything you wanted to say using the structured template. For example, you may want to highlight some of the areas where you have not been able to give the apprentice the exposure they would have liked.

We would welcome any general constructive development advice you may wish to give.

Please continue on a separate sheet if required.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Template 5 – Declaration and Evidence Checklists for the Completion of the Summative Portfolio

These templates are provided to support the training provider in working with the apprentice and employer to ensure the successful completion of the summative portfolio.

The checklists can be used by training providers to help them manage the process through to completion, although training providers may also substitute their own processes and documentation as they see fit.

The key responsibilities of the apprentice in producing their summative portfolio can be found in the General Guidance for Apprentices, Employers and Training Providers, as can generic guidance on how to select evidence to compile the summative portfolio.

The apprentice should gather artefacts and record information that can evidence their activities undertaken in the workplace. The portfolio of evidence should demonstrate the full range of competencies, as shown in this template, which are required by the standard to show that the apprentice can fulfil the role of a Software Tester.

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Summative Portfolio Declaration Apprentice declaration

Name	
ULN	
Declaration	I confirm that all the evidence submitted is my own work and it has been completed as specified.
Signature	
Date	

Line manager declaration (employer)

Name	
Company	
Declaration	I confirm that the work contained within this portfolio has, to the best of my knowledge, been completed solely by _____
Signature	
Date	

Training provider declaration (training provider)

Name	
Company	
Declaration	I confirm that the work contained within this portfolio has, to the best of my knowledge, been completed solely by _____
Signature	
Date	

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester competencies evidence checklist

The defined competence areas and associated typical evidence are listed in this table. Not all employer businesses are identical so there will always be variation in the types of activity that will be carried out in the course of each apprentice's daily work; however, each Software Tester apprentice must be able to demonstrate evidence of every competence.

Acceptable evidence format
<p>The intention is to allow flexibility in the format that evidence can take in order to reflect the type of records that an apprentice could realistically be expected to have access to. This includes, but is not limited to:</p> <ul style="list-style-type: none">• photographic or video evidence of activity;• witness statement;• observation reports;• annotated screenshots;• signed-off work records;• printed outputs of pre- and post-configuration settings;• peer reviews.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Implementing a wide range of software testing procedures for their employer context to achieve the desired test outcomes (desktop, web, mobile apps, games, business solutions etc) to identify, prioritise and correct software defects before release.		
Familiar with the range of industry standard software test management and automation tools that are available and in particular those for their employer context.		
a. causes of defects b. role of software testing c. software testing processes, procedures, tools and techniques d. the collation and documentation of information relating to software testing activities e. the range of software testing activities commonly implemented f. test levels: <ul style="list-style-type: none"> • component testing • integration testing • system testing g. acceptance testing		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Analyse software requirements so that they understand the intended purpose of software being developed.		
Review and validate that each requirement can be tested for so that they can define tests and test conditions, identifying any requirement ambiguities ensuring that they are fixed early in the development life cycle. a. test analysis and design b. reviewing functional software requirement specification (SRS) documents c. requirements testing d. software tests, test conditions and exit criteria for each requirement e. testing for security		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Designs simple test strategies for non- complex projects.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Design simple test strategies. The components of the test strategy, typically including: <ul style="list-style-type: none"> • testing scope • the testing process and the level of testing • test type and the testing approach • test environment setup • test data requirements • test management and automation tools • risk identification and analysis • release control 		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA^{plus} © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Analyses test requirements and designs and prepares a test plan.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Interpret and understand test plans and be able to create a test plan from scratch. a. requirements analysis b. test planning process c. creating a test plan d. the components of a test plan: • test scenarios/test objectives that will be validated. • test schedules • roles and responsibilities • deliverables • test environments • tools • defect management • risks and risk management • completion and exit criteria		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Designs and builds test cases, test scripts, and test procedures, with expected results.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Show evidence of test cases are documented: a. functional and non-functional testing b. creating detailed test cases and test scripts c. test conditions for test cases d. the expected results for each test case		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Develops and collects representative and realistic test data.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Prepare realistic test data. Testers should check and update the test data before execution of any test case: <ol style="list-style-type: none"> test data types test data preparation the testers responsibility in creating their own test data according to testing needs the role of common test data cost, quality and time constraint for preparing test data and running tests. 		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Conducts a range of different software testing types (including Unit Testing, Integration Testing, Functional and Non- Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing); interpreting and executing sets of moderately complex test scripts using agreed methods and standards.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence of test execution which includes the execution of test cases or test scripts, manually or in an automated way, the logging of test results, comparison of the expected and actual results, reporting the incidents and retesting the fixed bugs. <ol style="list-style-type: none"> software testing techniques executing different types of test as defined in the testing plan assigning the test cases in each test suite to testers for execution defect and bug reporting reporting status, and dynamic planning and prioritisation report testing test cycle findings and status 		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Accurately records the outcome of test activities and maintains accurate test records and reports.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence of recording test activities: a. documenting testing activities and test outcomes b. recording test executions, test passes and test failures c. logging new defects into the defect tracking system d. user acceptance testing results should be recorded including the user interaction leading up to a test failure		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Assesses test results against expected results and acceptance criteria and through traceability to requirements.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence of assessing test results: a. determining and reporting root causes for test failures b. compares actual results with expected results c. report discrepancies as incidents		

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Presents and communicates results effectively using appropriate communication styles and media.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence of present results: a. monitoring test results and test progression b. present software test results c. communicates software test results to different stakeholders		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Operates the organisation's software testing tools effectively and follows procedures and techniques correctly.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
<p>Evidence of using software testing tools. The tools are divided into different categories as follows:</p> <ul style="list-style-type: none"> • Test management tools • Functional testing tools • Load testing tools • Bug tracking tools There are also a range of Automation Testing Tools <p>a. the classification of the major types of software test tools b. an overview of the major functional testing tools and their application c. overview of test management and bug tracking tools d. how to perform automated testing e. benefits and risks of automated testing f. factors for choosing a particular tool</p>		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Complies with relevant legislation and internal/external standards related to software testing and software security.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Aware of the standards and procedures to follow during software testing, as well as sector specific legislation and standards.		
<p>Aware of code of ethics for accessing private and sensitive data.</p> <p>a. organisational standards for software testing</p> <p>b. sectoral standards and legislation (e.g. insurance, food, health, automotive etc)</p> <p>c. National and international standards for software testing:</p> <ul style="list-style-type: none"> • the International Software Testing Standard - ISO/IEC/IEEE29119SoftwareTesting • IEEE 829-2008, also known as the 829 Standard for Software and System Test Documentation • BS 7925-1 <p>d. code of ethics for accessing private data</p>		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA **plus** © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Advises and supports others on testing processes and procedures.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Inform and advise a wide range of stakeholders on software testing processes, procedures and outcomes a. Inform, advise and guide others on all aspects of software testing activities, including best practice		

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Completes allocated tasks in accordance with the organisation's reporting and quality systems.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Complete tasks within the organisations reporting and quality systems.		

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Competence		
Operates within service level agreements.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Work within their organisations service level agreements (SLAs).		

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Generic levels of responsibility evidence checklist

Areas of responsibility and associated typical evidence are shown below.

Proficiency		
Business skills Demonstrates an analytical and systematic approach to issue resolution. Takes the initiative in identifying and negotiating appropriate personal development opportunities. Demonstrates effective communication skills. Appreciates the wider business context, and how their role relates to other roles and to the business of the employer or client.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence that you can demonstrate an analytical and systematic approach to issue resolution.		
Evidence that you can take the initiative in identifying and negotiating appropriate personal development opportunities.		
Evidence that you can demonstrate effective communication skills.		
Evidence that you can appreciate the wider business context, and how your role relates to other roles and to the business of the employer or client.		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency		
Complexity Applies a methodical approach to issue definition and resolution.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence that you can apply a methodical approach to issue definition and resolution.		

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency		
Autonomy Uses discretion in identifying and responding to complex issues and assignments.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence that you can use discretion in identifying and responding to complex issues and assignments.		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Proficiency		
Influence Interacts with and influences colleagues. Has working level contact with customers, suppliers and partners.		
Minimum expected requirement	List the evidence in the portfolio that fulfils this requirement	Reflections on applying knowledge learnt
Evidence that you can interact with and influences colleagues.		
Evidence that you have working level contact with customers, suppliers and partners.		

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Professional development activities evidence checklist

Areas of additional professional development activities that might be undertaken and associated typical evidence are shown below.

Professional development topic	Objectives	Typical evidence
Understanding organisation	<p>Gaining basic knowledge of the employing organisation, its business, structure, culture, products/services, operations and terminology.</p> <p>Gaining knowledge of IT activities in the employing organisation external to their function.</p>	<ul style="list-style-type: none"> • organisation charts; • company annual reports; • company website; • documents or reports from other areas of the business.
Additional business skills	<p>Undertaking learning and practice in the techniques of team and collaborative working. Gaining an understanding of the underlying concepts.</p> <p>Undertaking learning and practice in oral and written communications, including report writing and presentations.</p> <p>Learning from experience and mistakes and applying the lessons as part of continuous improvement.</p>	<ul style="list-style-type: none"> • presentations, reports or minutes of meetings that demonstrate communication skills, report writing abilities and collaborative activities; • evidence of reviewing their work and suggesting improvements or critically appraising what they did and what they learned from it.
External activities	<p>Participating in group activities inside or outside the working environment that can assist with the development of interpersonal skills.</p> <p>Undertaking pro bono (unpaid) activities that can help to develop professional skills or offer additional insight into, or understanding of, their working role.</p>	<ul style="list-style-type: none"> • evidence of meetings attended through continuous professional development records; • evidence of activities undertaken.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Additional learning	<p>Undertaking learning in subjects relevant to, but not directly related to, their role (e.g. foreign language courses, mentoring skills, cultural awareness and diversity training), perhaps through self-study or evening classes.</p> <p>Exploring a topic that is not part of their normal responsibilities, and presenting findings to colleagues and/or management.</p>	<ul style="list-style-type: none"> • evidence of learning undertaken from continuous professional development records; • evidence of presentations given to colleagues and/or management.
Professional networking	<p>Attending meetings, seminars and workshops organised by a professional body and reading published material such as journals and web content.</p>	<ul style="list-style-type: none"> • evidence of meetings attended through continuous professional development records; • written evidence summarising learning gained from reading.

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Software Tester Template 6 – End-Point Assessment Readiness Check

The training provider should assess whether the apprentice has met the criteria for the end-point assessment as defined in the standard.

The template below is a simple checklist that may be used.

Competence	Ready	Not ready	Comments
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.	<input type="checkbox"/>	<input type="checkbox"/>	
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	<input type="checkbox"/>	<input type="checkbox"/>	
Designs simple test strategies for non-complex projects.	<input type="checkbox"/>	<input type="checkbox"/>	
Analyses test requirements and designs and prepares a test plan.	<input type="checkbox"/>	<input type="checkbox"/>	
Designs and builds test cases, test scripts, and test procedures, with expected results.	<input type="checkbox"/>	<input type="checkbox"/>	
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.	<input type="checkbox"/>	<input type="checkbox"/>	
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	<input type="checkbox"/>	<input type="checkbox"/>	
Designs simple test strategies for non-complex projects.	<input type="checkbox"/>	<input type="checkbox"/>	
Analyses test requirements and designs and prepares a test plan.	<input type="checkbox"/>	<input type="checkbox"/>	

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018

Digital Industries Apprenticeship: Standard Specific Guidance for Training Providers – Software Tester

Designs and builds test cases, test scripts, and test procedures, with expected results.	<input type="checkbox"/>	<input type="checkbox"/>	
Implements software testing procedures on software applications (including desktop, web, mobile, embedded, mainframe) to ensure agreed errors and security issues are identified, recorded, prioritised and corrected before release.	<input type="checkbox"/>	<input type="checkbox"/>	
Reviews software requirements and specifications for software functionality and security, and defines comprehensive tests and conditions.	<input type="checkbox"/>	<input type="checkbox"/>	
Designs simple test strategies for non-complex projects.	<input type="checkbox"/>	<input type="checkbox"/>	
Analyses test requirements and designs and prepares a test plan.	<input type="checkbox"/>	<input type="checkbox"/>	
Designs and builds test cases, test scripts, and test procedures, with expected results.	<input type="checkbox"/>	<input type="checkbox"/>	

Information contained within this document has been republished under the terms of the Open Government Licence v3.0 © Crown copyright (2018)

Copyright © BCS 2018

Skills Framework for the Information Age © SFIA Foundation 2003, 2005, 2008, 2011, 2015

SFIA *plus* © The British Computer Society 2004, 2006, 2008, 2011, 2015

Standard Specific Guidance for Training Providers – Software Tester

V2.0 May 2018