THE APPRENTICE
and TRAINING PARTNERSHIP

LEVEL 4
SOFTWARE TESTER

Programme Overview:

The primary role of a Software Tester is to ensure that software operates as intended. Testers typically design and prepare test plans and conduct software testing as appropriate to ensure that software is fit for purpose. They document and report the results of testing activities. They have a good understanding of the software lifecycle and software development practices.

Entry Requirements:

Individual employers will set the selection criteria, but this might include five GCSEs and/or A levels; a Level 3 Apprenticeship; other relevant qualifications and experience; or an aptitude test with a focus on functional maths.

Initial Assessments:

An initial assessment of Maths and English will be carried out for all apprentices using an approved diagnostic tool (BKSB, ForSkills); this will include Initial Assessment and full Diagnostic of knowledge in Maths and English to gauge the level at which the apprentice is working. This will enable us to support the apprentice and structure training provision.

Who is it for?

The Software Tester Level 4 Standard is suitable for individuals who are working in a supervisory software tester role. They may have key responsibilities which can include:

- Software Tester
- Software Test Analyst

Programme Duration:

The duration of this apprenticeship is typically 24 months

Delivery Model:

A minimum of 20% of the apprenticeship training takes place off-the-job and is flexibly delivered to suit your business with either classroom training and/or workshops in the workplace or block-training or day-release at our centre, with the remaining time being spent in the workplace.

A full timetable for training, ongoing assessment and End-Point Assessment will be issued to both you as the employer; and the apprentice, once the delivery model and training elements have been agreed.

On Programme Assessment will take the form of progress reviews with the trainer, employer and apprentice at least every 12 weeks. Feedback with ongoing development will include additional learning materials, resources and training delivered through the apprentice's e-portfolio OneFile; to which employers have access to view the

progress and the development of each apprentice.

End Point Assessment:

As the apprentice progresses through the apprenticeship, the employer and training provider will agree the apprentice has meet the Standard and be ready for End Point Assessment. This is called the 'Gateway' and will trigger End-Point Assessment.

This is carried out by a Qualified Independent Assessor by an Approved External Awarding Organisation and will test the knowledge and competencies of the apprentice using a range of methods, these can include; an interview, scenarios with questions, portfolio of evidence sampled, professional discussion, watching a presentation of the apprentice's evidence plus other methods.

The Independent Assessor will make the final judgement as to whether the apprentice has fully met the requirements of the Standard. Grading will also be awarded with a maximum mark of 100, this will be awarded by the Independent Assessor based on the apprentice's assessment. Grades awarded are distinction, merit, pass or fail. End-Point Assessment is normally carried out in the workplace.

Programme Structure:

The programme is broken down into areas to ensure that each apprentice has a rounded knowledge of principles, techniques and technologies. This involves an understanding of knowledge, skills and behaviour; as well as managing self and delivering results.

Technical Competencies

Delivered through one to one training sessions, workshops and tutorials and applied according to business environment

Be able to undertake the following in line with organisational procedures and under supervision:

- 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.

- 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

Technical Knowledge and Understanding

Delivered through one to one training sessions, workshops and tutorials and applied according to business environment

Be able to understand and know the following:

- Understands and can apply the basic concepts of software testing including testing types; test procedures; testing techniques; testing tools and testing terms.
- Understands how to use and apply automated test tools.
- Understands the importance of accuracy and clear documentation of software tests.
- Understands how to use bug tracking tools
- Understands and can communicate the differences between software testing and verification.
- Understands industry standard software development paradigms and methods (including. Object Oriented, procedural and agile) to conduct testing.
- Understands that software should be 'secure by design' and how to test for security requirements.
- Understands the range and features of software test commonly used (Unit Testing, Integration Testing, Functional and Non-Functional Testing, System Testing, Stress Testing, Performance Testing, Usability Testing, Acceptance Testing, Regression Testing and Exploratory Testing).
- Understands how to set up and configure testing packages.
- Understands the role of software testing within the wider systems development life cycle.
- Understands the need for conformance to specific standards where appropriate (including data protection, health informatics, safety critical, etc) related to software testing.

Underpinning Skills, Attitudes and Behaviours

Learned through a blended mixture via on the job training and one to one training sessions, workshops and tutorials and applied according to business environment

- Logical and creative thinking skills
- Analytical and problem solving skills
- Ability to work independently and to take responsibility
- Can use own initiative
- A thorough and organised approach
- Ability to work with a range of internal and external people
- Ability to communicate effectively in a variety of situations
- Maintain productive, professional and secure working environment

Qualifications:

Apprentices must achieve one internationally recognised vendor or professional qualification, from the right hand column in the table below.

This then exempts the Ofqual-regulated knowledge module.

Knowledge Modules

- **Knowledge Module 1:** Testing Tools (for Level 4 Software Tester Apprentice)
- **Knowledge Module 2:** Testing Concepts (for Level 4 Software Tester Apprenticeship)

Vendor or Professional Qualificaitons

- **ISTQB Certified Tester Foundation Level Knowledge**
- **ISTQB Certified Tester Foundation Level BCS Intermediate Certificate in Software Testing**

Progression:

This apprenticeship is recognised for entry onto the Register of IT Technicians confirming SFIA level 3 professional competence and those completing the apprenticeship are eligible to apply for registration.

Next steps:

In order to create an apprenticeship that best suits your business requirements, we will meet with you to discuss the delivery of the programme and how the apprenticeship will be funded. We will provide ongoing support including:

- Search and selection of the right apprentices to meet your business requirements.
- Specifying the training modules to optimise 'in job' performance.
- A tailored service in order to seamlessly integrate with your apprentice managers.
- Updates and information regarding apprenticeship costs and funding.
- Support and guidance for the apprentice and employer from start to finish with one main point of contact for you throughout the whole apprenticeship.
- Employer and apprentice access to a comprehensive range of resources and support material via OneFile.
- Time-efficient visits for training and assessment to work around you.
- Industry specialist qualified trainers and assessors.

Questions?

If you have any questions or concerns relating to supporting an Apprentice, your assigned tutor is always available to help, or, contact one of our advisors on **0330 380 0249.**