



National Apprenticeship- Occupational Profile

Apprenticeship Title: Software Testing Associate

NFQ Level: 6

Duration: 2 Years

Typical Tasks/ Responsibilities:

Collaborate with cross-functional teams to plan, execute and improve software testing activities. Design and run manual and automated test cases, analyse results, track defects through to resolution and support debugging. Contribute to code and design reviews, build and maintain test environments, create test data and test APIs using industry-standard tools. Continuously improve testing processes, ensure compliance with relevant standards and provide technical support while maintaining awareness of best practice in software quality assurance.

On successful completion of the proposed apprenticeship, the Software Testing Associate will:

Knowledge:

Demonstrate understanding of the fundamental principles and concepts of software testing, including testing methods, techniques and industry standards. Recognise and apply relevant codes, best practices and testing tools, including the principles and operation of test automation. Understand the basics of testing environments and the tools used to support effective software quality assurance.

Skills:

Design and execute manual and automated test plans, build and manage test environments, and interpret test results to support defect identification and root cause analysis. Produce clear test reports, trace tests to requirements and use appropriate test frameworks and automation scripts. Work effectively within agile teams, analyse technical documentation, communicate clearly with stakeholders and apply structured problem-solving techniques to resolve software testing issues.

Competences:





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The Software Testing Associate will demonstrate the ability to apply knowledge, skills and attitudes for achieving observable results. In line with the Seoul Accord graduate competencies the Software Testing Associate will apply knowledge of computing fundamentals, knowledge of the software testing specialisation, mathematics, science, and domain knowledge appropriate for the software testing specialisation to a wide variety of practical procedures and practices.

PO 1: Knowledge and Understanding:

Demonstrate a comprehensive understanding of the fundamental principles of software testing and apply this knowledge effectively in practice. Maintain awareness of evolving technologies, industry standards and best practice, and operate in compliance with relevant regulations, codes and professional standards.

PO 2: Problem Analysis:

Apply analytical and systematic approaches to identify, investigate and resolve software testing issues. Diagnose faults effectively and use structured problem-solving techniques to develop appropriate and reliable solutions.

PO 3: Design:

Design and develop structured software test plans aligned to defined requirements and coverage levels. Apply statistical analysis where appropriate and incorporate relevant industry standards and best practice into test design activities.

PO 4: Investigation:

Undertake investigative and research activities to improve testing processes and evaluate emerging technologies and methodologies. Analyse technical documentation and conduct feasibility assessments to support informed testing decisions.

PO 5: Professional and Ethical Responsibilities:

Demonstrate professionalism, ethical conduct and regulatory compliance in all aspects of software testing practice. Maintain confidentiality, uphold safety and legal standards, and take responsibility for ongoing professional development.

PO 6: Teamwork and Lifelong Learning:

Work collaboratively within multidisciplinary teams, contribute constructively to decision-making processes and share knowledge to support collective learning. Demonstrate commitment to continuous professional development in software testing.



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PO 7: Communication:

Communicate technical information clearly and effectively in both written and verbal formats. Engage in active listening, respond appropriately to feedback and present ideas and findings in a structured and professional manner.

PO 8: Software Test Management:

Apply effective time, resource and project management principles to software testing activities. Manage testing tasks efficiently while considering economic, environmental and social factors in decision-making.

Industry/industries served by the apprenticeship:

The Higher Certificate in Software testing Associate (Apprenticeship) serves the software industry across various sectors, including; Software, IT, Cybersecurity, Financial Services, Automotive, Semiconductor, Telecommunications, Government, Health, Bioinformatics, Pharma, Policing, Defence, Transport, Energy, AI, Media, Aeronautical, and Water sectors.

Proposed minimum entry requirements for apprentices on the programme:

Entry to the programme is with the following requirements:

- Applicants must be employed by a SOLAS approved employer. To be eligible, the applicant must be at least 17 years of age and have five O6/H7 grades in Leaving Certificate subjects, including Mathematics and English or Irish, a Distinction in the Leaving Certificate Applied (LCA), or a cognate Further Education & Training (FET) major award at level 5 or 6 in the National Framework of Qualifications (NFQ). However, employers may seek higher educational qualifications and other requirements.
- International learners must have an English Language score of 4.0 ILETS, a Duolingo score of 60 or greater.
- The consortium will also facilitate Recognition of Prior Learning (RPL) in accordance with the university policies, and will recognise candidates without formal qualification provided they have industrial experience, and non-formal evidence of ability to study at Higher Certificate level.



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