

L4 APPRENTICESHIP

SOFTWARE DEVELOPER

Overview

The primary role of a software developer is to build and test simple, high-quality code across front end, logic and database layers. A developer will typically be working as part of a larger team, in which they will have responsibility for some of the straightforward elements of the overall project. The developer will need to be able to interpret design documentation and specifications. The customer requirements will typically be defined and agreed by more experienced or specialist members of the team, such as a business analyst or technical architect.

Typical Job Roles: Web Developer, Application Developer, Mobile App Developer, Games Developer, Software Developer.

Entry requirements*

Assessed on an individual basis on application/interview

Who is the course for?

This apprenticeship programme could be for new or existing staff who will need to demonstrate expertise in the technical side of their role. You will develop strong problem-solving skills and a good grasp of the theoretical and practical aspects of software development. It is essential that you can work independently but also operate as an effective team member, have good customer handling skills and identify ways in which they can work more efficiently.

Programme content

Knowledge

- Understands and operates at all stages of the software development lifecycle.
- Understands the similarities and differences (taking into account positives and negatives of both approaches) between agile and waterfall software development methodologies.
- Understands how teams work effectively to produce software and contributes appropriately.
- Understands and applies software design approaches and patterns and can interpret and implement a given design, compliant with security and maintainability requirements.
- Understands and responds to the business environment and business issues related to software development.
- Understands and applies the maths required to be a software developer (eg algorithms, logic and data structures).

Skills

- Logical and creative thinking skills.
- Analytical and problem-solving skills.

KEY INFORMATION

Typical Duration:
21 months + 3 months EPA

Taught Day:
One day every week term time only

Delivery Location:
Truro

Funding value:
£18,000

(£900 employer contribution if required)

- Ability to work independently and to take responsibility.
- A thorough and organised approach.
- Ability to work with a range of internal and external people.

Technical Competencies

- Logic: writes good quality code (logic) with sound syntax in at least one language.
- User interface: can develop effective user interfaces for at least one channel.
- Data: can effectively link code to the database/data sets.
- Test: can test code and analyse results to correct errors found using either V-model manual testing and/or Using unit testing.
- Problem solving can apply structured techniques to problem solving, can debug code and can understand the structure of programmes in order to identify and resolve issues. Design: can create simple data models and software designs to effectively communicate understanding of the program, following best practices and standards.
- Analysis: can understand and create basic analysis artefacts, such as user cases and/or user stories.
- Deployment: can understand and utilise skills to build, manage and deploy code into enterprise environments.
- Development lifecycle: can operate at all stages of the software development lifecycle, with increasing Breadth and depth over time with initial focus on build and test.

Can interpret and follow:

- software designs and functional/technical specifications
- testing frameworks and methodologies
- company, team or client approaches to continuous integration, version and source control

Can respond to the business environment and business issues related to software development.

Can operate effectively in their own business's, their customers' and the industry's environments.

Can apply the maths required to be a software developer (e.g. algorithms, logic and data structures).

Gateway

The decision as to when an apprentice is ready to cross the threshold from learning into the end point assessment phase will be made by the employer and the training provider based on their monitoring of apprentices' progress. In order to move into the end point assessment phase apprentices will need to have passed all the knowledge modules and/or vendor or professional qualifications and be able to produce a portfolio for the end point assessment. Level 2 English and Maths will need to be achieved, if not already, prior to the end point assessment.

End point assessment

EPA methods

- Summative portfolio
- Synoptic project
- Employer reference
- Interview

Contact information

For further information, please call our Business Relations Team on 01872 242711 or email apprenticeships@truro-penwith.ac.uk



* A guide to GCSE grading and Functional Skills

Department for Education

GCSE Grading

New Grading Structure	Old Grading Structure
9	A*
8	A
7	A
6	B
5	B
4 Standard Pass →	C
3	D
2	E
1	F
	G
U	U

Functional Skills are equivalent to GCSE's, the table below shows the comparison

Entry Level 1	GCSE below G or Level 1
Level 1	GCSE D-G or level 1-3
Level 2	GCSE A* - C or level 4-9