DEVOPS ENGINEER APPRENTICESHIP
LEVEL 4

bcs The Chartered Institute for IT — Approved Centre

For new or existing staff

This occupation is found in a wide and diverse range of public and private sector organisations, from tech start-ups through government departments to multinationals. Essentially any organisation of any size that builds and/or operates modern IT services. The broad purpose of the occupation is to enable organisations to get valuable working software out in front of active users, both external and internal, frequently and safely, reducing time to market, delivering increased value - both with respect to the end user and the business - and improving the quality of digital services.

The DevOps Engineer requires the individual to understand and appreciate how their code functions when being used in the real world and troubleshoot any issues that may arise, while taking a cloud-infrastructure focused perspective. In your daily work, you will interact with other members of agile development teams, other areas within the organisation's IT department and business areas, as well as 3rd-party suppliers.

Delivery model and duration:
Training will be delivered both in college and in the workplace
Duration: 24 months plus 4 months End Point Assessment

Ideal for:
- Automation Engineer
- DevOps Engineer
- Full stack Developer
- Site Reliability Engineer

The apprenticeship will cover the following core areas:
- Scripting and coding in domain specific languages, using pair/mob programming techniques
- Knowledge Sharing and Collaboration
- Build a CI/CD pipeline using automation tooling and often APIs
- Promote a DevOps Culture – Using Agile principles to build and run
- Applying a Secure SDLC
- Design on-prem and Cloud architectures to meet business needs
- Monitoring
- Owning your own continuing skills development

Entry Criteria:
- GCSEs in English and maths grade 9-4 or A* - C and 2 A level's in a relevant IT / stem subject and/or a L3 Software apprenticeship

Benefits to business:
- Excellent opportunity to up-skill existing staff and manage succession planning
- Increase Staff retention and experience
- Focused, high-performing teams

Benefits for learners:
- Widen the skills and knowledge to work on a broad range of complex or technical work activities

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End Point Assessment

The EPA will test the entire Standard (knowledge, skills and behaviours) and be undertaken as follows:

- A project and practical assessment - based upon a real business application, a secure, performant piece of code will be developed from a work-based project. Successful deployment of the code from source to the end user, satisfying functional and non-functional requirements.
- A Professional discussion – A 60 minute discussion with an independent assessor ensuring demonstration of DevOps practices and own continuing professional development.

Unit	Overview
Culture & Practises	Understanding the purpose and culture of DevOps and the reality of how it is applied in the workplace including the roles within the teams.
CPD & Core Knowledge	Core knowledge required to be able to implement DevOps. Invest in own continuous learning and development.
Data and Data Security	Understand and implement secure and ethical data practises throughout development using a range of tools and techniques. Identify and minimise any security threats.
User Needs	Creating solutions which place the user experience at the heart of the development practises.
Coding	Writing code both programming and general purpose that is readable and maintainable.
Testing	Understands and implements appropriate testing practises and techniques.
Automation	Understands and applies continuous integration and continuous delivery and automates commonly occurring tasks.
Monitoring	Install, manage and monitor the end to end service.
Problem Solving	Understands and applies different approaches to solving problems throughout the project.