TECDT50731

# Assist in implementing DevOps software lifecycle management processes

## Overview

This standard is about assisting in implementing software lifecycle management processes.

This involves supporting DevOps (integrated development and operations) processes as part of a team, monitoring live system performance and implementing fast cycle software deployment as part of a continuous integration (CI) and continuous delivery (CD) pipeline.

This includes monitoring live containerised software environments for availability and performance, and responding to issues through troubleshooting. It also includes preparing deployment scripts and supporting the automation of deployment processes.

This standard covers the competencies needed to implement the DevOps infrastructure to support the development and deployment of new or updated digital products or services using the DevOps approach. It is for those who need to assist in implementing software lifecycle management as part of their duties.

## Performance criteria

*You must be able to:*

1. Contribute to building, maintaining and operating DevOps deployment pipeline processes in line with organisational standards
2. Assist with implementing DevOps process improvements to increase software deployment performance
3. Assist with configuring new and existing build plans to deploy tested and verified code into live environments
4. Contribute to building, testing and deploying software application updates using CI/CD pipelines to maintain live environments
5. Monitor live environments to proactively identify issues
6. Contribute to developing new scripts and tools to enhance deployment pipeline automation
7. Document software deployments in line with organisational requirements

## Knowledge and understanding

*You need to know and understand:*

1. The main DevOps processes used during software lifecycle management
2. That a DevOps pipeline is used to define the journey that new code takes from planning to deployment
3. How CI/CD deployment pipeline processes work
4. How to establish the DevOps platforms needed to deliver software as a service to clients and stakeholders
5. What is meant by continuous integration and continuous deployment
6. The main functions of modern scripting languages to provide automated deployment and continuous integration
7. How to develop deployment scripts using industry standard packages
8. The main operating system administration functions for DevOps processes and how to apply them
9. The importance of team collaboration in DevOps software lifecycle management
10. How to work with agile methodologies to manage the lifecycle of software services
11. The main features of cloud environments for hosting DevOps software solutions
12. That the variety of applications means using numerous technologies and solutions against a common set of requirements
13. The importance of ensuring that new code is deployed into stable environments

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