Testing in DevOps

DOu – Certified Tester in DevOps (CTD)
Exercise List

Exercises

- Demonstrate the challenges of DevOps

- Demonstrate how to apply the main features of a configuration management tool: check-in, check-out, merge, conflict resolution, branching

- Create a simple pipeline for code compilation based on trigger from code check-in

- Demonstrate how to apply the main features of continuous delivery and deployment tools

- Demonstrate the main monitoring elements in tools, such as Nagios or Grafana

- Perform a guided exercise of creating tests using the xUnit framework against a given code

- Demonstrate how to integrate a static analysis tool into DevOps pipeline

- Perform an exercise providing a hint of integrating a static analysis tool in the DevOps pipeline and checking the test coverage of a given code and its tests

- Demonstrate how to integrate a memory leak detection tool in the DevOps pipeline

Exercises

- Demonstrate how to integrate a code performance measurement tool into a DevOps pipeline

- Demonstrate how to Integrate a behavior-driven development tool into a DevOps pipeline

- Demonstrate how the types of feature testing can be implemented for a given change made in the software – such as for a new feature or modification in an existing one

- Demonstrate how dark launch can be implemented for a given system

- Perform a guided exercise to create several functional tests for feature toggles and watch how they can be executed on a given environment

- Demonstrate alerts in a system using sets of predefined tests for monitors

- Demonstrate how Dockers can be applied on a container in a virtualized environment

- Demonstrate how various of IaC tools can be orchestrated and working in a harmonized way

- Perform a guided exercise to search for most updated existing tools on the market for DevOps, including those who support specific stages, as well as tools that are suites and providing holistic solutions