Pet Clinic

Automated Deployment Pipeline

Deirdre Lee

devops T00126583

# Stage 1: Code and Tools

## Stage 1.1: Summary of Application

* Describe what the application does.
* Specify where it was sourced.
* List the technologies used (e.g., Java, Spring).

## Stage 1.2: Tool Chain

* Add SVN, Git, Apache Maven, Jenkins, AWS, Microsoft Azure, and other DevOps technologies.
* Continuously update the list as the semester progresses.

## Stage 1.3: Flow Diagram

* Highlight the technologies to be implemented at each stage.

# Stage 2: Continuous Integration

## Stage 2.1: Install & Configure Continuous Integration

* Set up continuous integration using a sample application.
* Store the application in a repository like GitHub.

## Stage 2.2: Automate Build Process

* Explore automation of the build process from a repository (Git).
* Utilise tools such as Maven, Gradle, MSBuild, etc.

## Stage 2.3: Configure Git Authentication

* Ensure that new jobs in the CI server authenticate with Git.
* Configure Git within the CI server.

## Stage 2.4: Unit Test Execution

* Perform unit tests execution in the sample application.
* Step 5: Configure Dashboard View plugin:
* Set up a standard Dashboard View plugin.
* Customize portlets for different views.
* Configure notifications (e.g., email) for build status.

## Stage 2.5: Code Quality Tools

* Explore code quality tools like Sonar Cloud.
* Implement quality gates to maintain code quality standards.

# Stage 3: Building the Code & Configuring the Pipeline

## Stage 3.1: Task Pipelines

* Establish pipelines for various tasks related to your sample application (e.g., Java, C#).
* Define stages and actions within each pipeline.

## Stage 3.2: Deploy Application

* Deploy the application to a suitable web or application server.
* Ensure appropriate configuration for deployment.

## Stage 3.3: Build Pipeline for CI Lifecycle

* Set up a build pipeline that encompasses all stages of continuous integration.
* Include processes such as compilation, testing, and packaging within the pipeline.

# Stage 4: End-to-End Automation Of The Application Delivery Lifecycle

# Stage 5: Cloud Provisioning and Configuration Management

# Stage 6: Deploying Application (AWS, Azure, and Docker)

# Stage 7: Monitoring Infrastructure and Applications

# Stage 8: Orchestrating Application Deployment