Project report on

CI/CD Deployment for Springboot Application

This document contains sections for:

- Sprint planning and Task completion
- Core concepts used in project.
- Technologies used in project.
- Flow of the Application.
- Demonstrating the product capabilities, appearance, and user interactions.

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Sprints planning and Task completion:

The project is planned to be completed in 2 sprint. Tasks assumed to be completed in the sprints are:

- Creating the flow of the application
- Initializing git repository to track changes as development progresses.
- Writing the program to fulfill the requirements of the project.
- Testing the program with different kinds of User input
- Creating this specification document highlighting application capabilities, appearance, and user interactions.

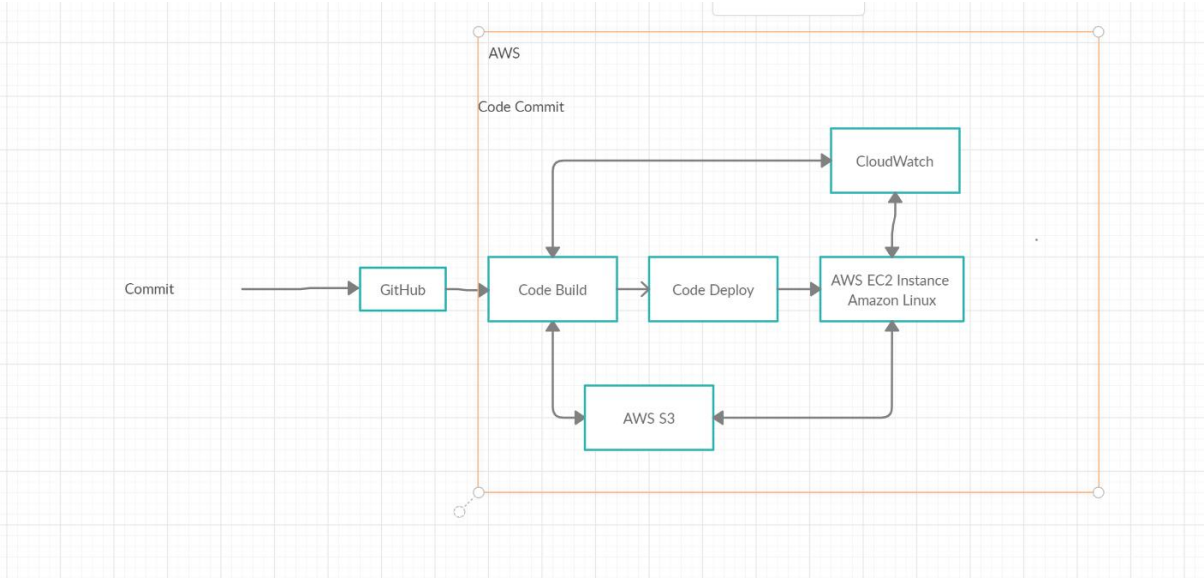
Core concepts used in project:

• Deployment: to deploy the local project to the end-users.
• Virtual Machine: use virtual instances to help to build, deploy and manage websites.
• Exception Handling: used to catch problems that arises in the code especially in I/O blocks. • Single Web Page: apply the concept of a website that only contains one HTML page.
• Object-Oriented: used to create and model objects for users and their credentials.

Technologies Used:

• AWS EC2 instance: to use the instances as a VM and deploy the application
• Jenkins: to build the project from GitHub.
• GitHub: to upload the source code of the project.

Flow of the Application:



Project Users Stories : (Agile and Scrum)

- As a user I want an automated integration of a Spring boot Application.
- As a user I want an automated deployment of a Spring boot Application.
- As a developer I want to automate the integration of a Spring boot Application for the user.
- As a developer I want to automate the deployment of a Spring boot Application for the user.

1. SPRINTS

Sprint 1

- Understanding the problem statement of the project .
- Creating the flow chart of the project.
- Creating Maven Project.
- Creating Spring boot Application.
- Adding necessary dependencies.
- Testing at each step for different user inputs.
- Initializing the git repository.
- Pushing the code to the GitHub.
- Creating AWS EC2 instance.
- Downloading MobaXterm.
- Downloading Jenkins.
- Deploying the application on Jenkins.
- Creating the Specification document for deploying the project.

Demonstrating the product capabilities, appearance, and user interactions:

To demonstrate the product capabilities, below are the sub-sections configured to highlight appearance and user interactions for the project:

Step 1: Creating a new project in Eclipse

- Open Eclipse
- Go to File -> New -> Project -> Maven Project -> Next.
- Type in any project name and click on “Finish.”