

Automation Testing

Phase-End Project Problem Statement

Phase-End Project: DevOps and Cloud Automation

Project Agenda:

To Host the Application on AWS EC2 Instance

To automate the build and deployment process using Jenkins on AWS EC2

To Containerize the application using docker on AWS EC2

Prerequisites:

SpringBoot

Jenkins

Docker

AWS

Description:

This assignment is designed to help understand how to plan and develop the back end for a given problem. Further, to gain hands-on experience building the CI/CD Pipeline using Jenkins and then containerizing the application on the AWS cloud platform.

Problem Statement:

Dr. Shawn runs a pet clinic. He needs to record the visits and other details associated with the pets and their owners visiting his clinic. He has software developed by Bella Solutions, a software company, to manage the same.

Bella Solutions aims to host the software solution for Dr. Shawn on AWS EC2 instance to have online access from anywhere by building CI CD Pipeline and containerizing the solution using Docker on AWS EC2.

Tasks:

As a task, you need to design and develop the front end for the problem statement along with database design:

Import the given Spring Boot project with the generated code in Eclipse

Configure the project with Dockerfile

Configure the project with Jenkinsfile

Build the project using the maven package

Create and Launch AWS EC2 Instance

Configure EC2 Instance with JDK 11

Install jdk8

Install jdk11

Configure EC2 Instance with Docker

Install the docker on EC2

Configure EC2 Instance with Jenkins

Install the Jenkins on EC2

Create the Admin User

Upload the given code to Git repo

Create Jenkins Pipeline on EC2 with SCM as git

Build the Pipeline to dockerize the application

Note: Download the supporting Spring Boot project from the reference material section