

PROJECT 3 Description:

Spring Boot Application using Docker, Postman, MongoDB.

In this assignment, we will dive into the fundamentals of Docker, focusing on containerizing our project and running it as a Dockerized microservice. We will learn how to create a Dockerfile to build a container for your application and use docker-compose to orchestrate multiple services like your product-service and MongoDB. By the end of this assignment, we will have containerized our Spring Boot application, connected it with a MongoDB database, and tested the application using Postman. We will also learn how to manage MongoDB user authentication with initialization scripts, update the application's configuration properties for different environments, and clean outdated Docker containers and images.

By completing this assignment, we have successfully containerized our Spring Boot application using Docker and Docker Compose, connected it to a MongoDB database, and tested the REST APIs with Postman. We have learned how to create multistage Dockerfiles to optimize the build process, write a docker-compose.yml file to manage multiple services, and use MongoDB initialization scripts to manage database users and roles. Additionally, we have cleaned up outdated containers and images and re-deployed your application in a fully Dockerized environment. These skills are essential for modern microservice-based application development, ensuring our projects are portable, scalable, and consistent across different environments.