**Assignment 5:**

**The software/framework I used:**

Leader-election: Zookeeper

Data streaming: Kafka

Kafka managing service: Kafka manager

Application: spring boot application implementing Kafka producer and consumer

Container: Docker

**What I do:**

1. Use docker-compose to start zookeeper, Kafka and Kafka manager containers

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1. Implement Kafka producer and consumer in spring boot application.

Configurate service in application.properties file.

Write Dockerfile for the spring boot application.

Use maven to package to application into a .jar file.

Use maven build the Dockerfile.

After build the Dockerfile, we can use ‘docker images’ to see if the container is built correctly.

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1. Use command ‘docker run --network app\_front -d -p 8081:881 springbootassign4/springbootkafkadocker neustudent testname 000001’ to start the container. And we can get a container ID.



1. Now the springbootkafkadocker container is running. Use ‘docker logs <containerID>’ to see the output.

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