

Credit Suisse - Java Full Stack Bootcamp - Exercises

Day 1:

Define a class for representing complex numbers. Create a list of 10 such complex numbers. Use stream API to get the average of real part where the real part of each complex number is positive.

Day 2:

The client would work with the modern interface for an elevator (moveUp, moveDown). But the existing class OldElevator has methods toUp and toDown. Implement adapter pattern using object composition technique to solve this problem.

Day 3:

Create a table for customer (first_name, last_name, email) in the database. Populate 10 customers using INSERT statements and then create a RESTful API to display the customer data in an HTTP GET call.

Day 4:

Create a simple form in HTML to take user data (first_name and last_name). When the submit button is pressed, this information has to be pushed to an array, which should be displayed in a suitable tag in the HTML.

Day 5:

Create an Angular application with the following components: Home, CustomerList, CustomerInfo. Create a service called CustomerService. This service provides a static list of customer objects. Inject this service in the CustomerList component and display the data using a table. When any customer is clicked on the table, the CustomerInfo component must display the customer information. Make use of suitable CSS (Bootstrap for example)

Day 6:

Create a routed React application with following routes: home, about, contact, products. Make use of suitable CSS (Bootstrap for example).

Day 7:

As appropriate

Day 8:

As appropriate (SELECT, JOIN, WHERE, constraints, ...)

Day 9:

Commands: status, log, commit, add, diff, reset, branch, checkout, merge

Demonstrations: remote, push, pull, clone

Day 10:

Demonstrations: IaaS (VM, storage), PaaS (database), SaaS (Office suite), Over of different services (AWS or Azure), Demonstration of CI/CD using Jenkins

Final project:

Customer management system

Customer has multiple accounts

Ability to add/update/remove customers

Ability to add/update/remove accounts

Database in Oracle, middleware in Spring Boot, frontend in Angular/React

Trainers to provide:

1. CREATE TABLE scripts

2. Basic Spring Boot skeletal application with configuration and tiers defined

3. Basic Angular/React application with routing

4. Table components and form components can be provided in frontend so that the grads work on integration