































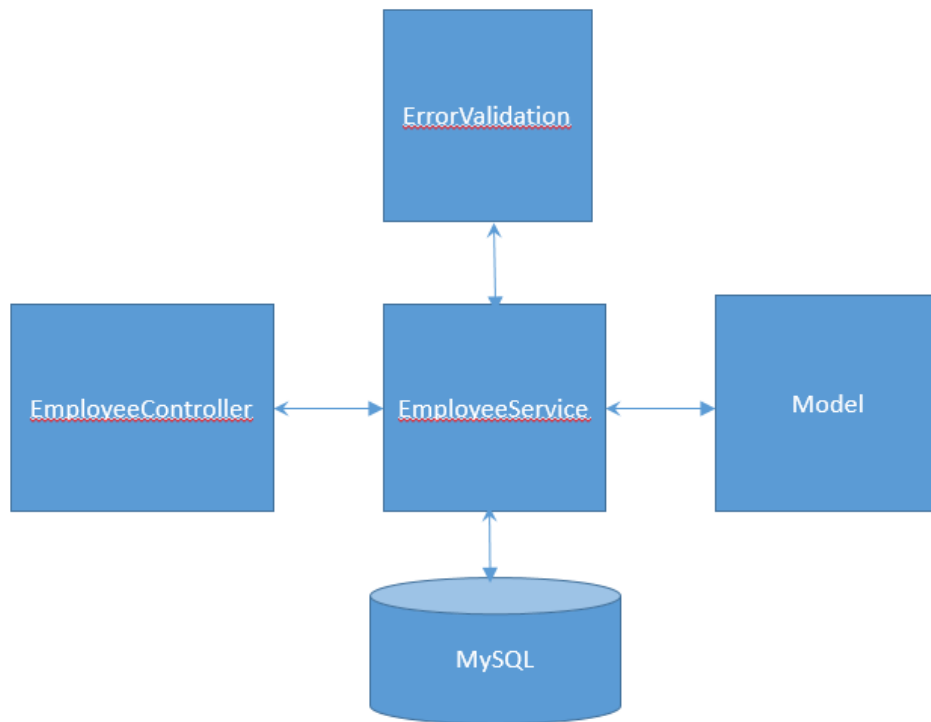


Sample Testing Assessment

Application

You are given the employee-app code. Import the maven project into your workspace. Don't make any changes to the code.

- ▼  employee-app [boot]
 - ▼  src/main/java
 - ▼  edu.tus.employee
 - >  EmployeeApplication.java
 - ▼  edu.tus.employee.controller
 - >  EmployeeController.java
 - ▼  edu.tus.employee.errors
 - >  ErrorMessage.java
 - >  ErrorMessages.java
 - >  ErrorValidation.java
 - ▼  edu.tus.employee.exception
 - >  EmployeeException.java
 - >  EmployeeValidationException.java
 - ▼  edu.tus.employee.model
 - >  Employee.java
 - ▼  edu.tus.employee.repository
 - >  EmployeeRepository.java
 - ▼  edu.tus.employee.service
 - >  EmployeeService.java
 - ▼  src/main/resources
 -  application.properties
 -  data.sql
 - >  src/test/java
 - >  src/test/resources
 - >  JRE System Library [JavaSE-11]
 - >  Maven Dependencies
 - >  .settings
 - >  src
 - >  target
 - >  .classpath
 - >  .project
 - >  pom.xml

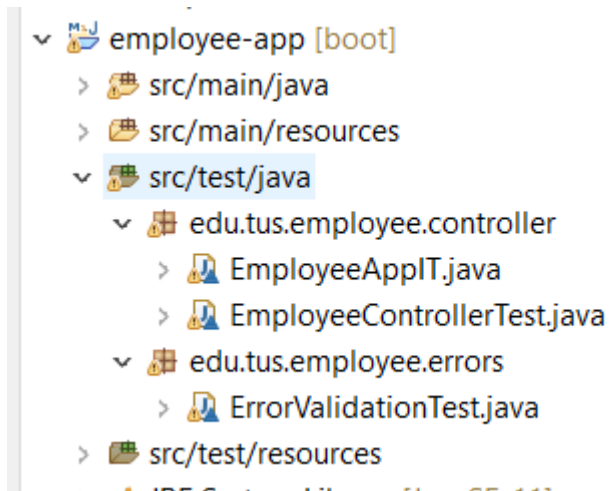


The following User Story is implemented:-

As an administrator I want to add an employee to the employee management application so that I can store their details.

1. Success – employee added with fields first name, last name, age and email address. Status code 200 returned with employee details
2. Fail – any of the fields first name, last name, age and email address are empty, Status code 400 returned with error message
3. Fail – employees must be aged between 18 and 65 inclusive. Status code 400 returned with error message
4. Fail – email address must be unique – status code 400 returned with error message

Complete the following test:



Step 1: Complete the tests in ErrorValidationTest that tests the methods in the ErrorValidation class. These tests can run outside of the Springboot context.

The “buildEmployee” method is given to create employee objects if you wish to use it. [20 marks]

Step 2: Complete the tests in EmployeeController that the controller layer and mocks the Service layer. [40 marks]

Step 3: Complete the tests in EmployeeAppIT. These are integration tests using TestRestTemplate. [40 marks]

When you run all the tests you should get code coverage as shown.

Element	Coverage	Covered Instru...	Missed In
employee-app	99.2 %	626	
src/main/java	97.8 %	222	
src/test/java	100.0 %	404	

