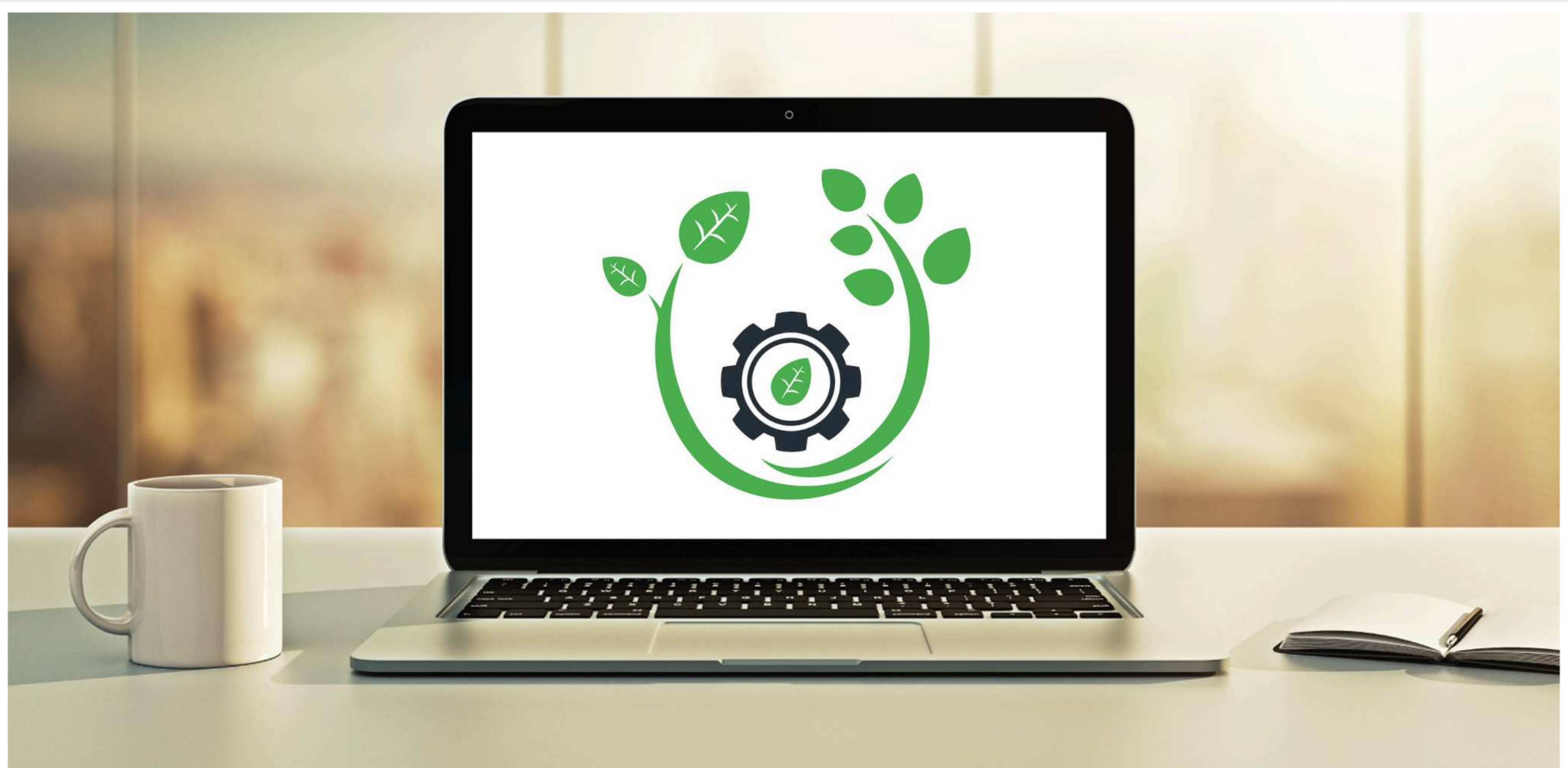


Set Up SQL Scripts in properties file



SQL for Sample Data

- Currently the SQL for sample data is hard-coded in our tests
- We would like to move the SQL to our properties file

@BeforeEach and @AfterEach

StudentAndGradeServiceTest.java

```
import org.springframework.jdbc.core.JdbcTemplate;
import org.junit.jupiter.api.AfterEach;
import org.junit.jupiter.api.BeforeEach;
...

@TestPropertySource("/application.properties")
@SpringBootTest
public class StudentAndGradeServiceTest {

    @Autowired
    private JdbcTemplate jdbc;

    @BeforeEach
    public void setupDatabase() {
        jdbc.execute("insert into student(id, firstname, lastname, email_address) " +
            "values (1, 'Eric', 'Roby', 'eric.robby@luv2code_school.com')");
        ...
    }

    @AfterEach
    public void setupAfterTransaction() {
        jdbc.execute("DELETE FROM student");
        ...
    }
}
```

This is what we currently have

Insert sample data

Delete sample data

SQL is hard coded

Development Process

Step-By-Step

1. Add SQL to application.properties
2. Inject SQL into test using @Value
3. Refactor @BeforeEach and @AfterEach

Step 1: Add SQL to application.properties

application.properties

```
...  
  
sql.script.create.student=insert into student(id,firstname,lastname,email_address) \  
    values (1,'Eric', 'Roby', 'eric.robby@luv2code_school.com')  
  
sql.script.delete.student=DELETE FROM student  
  
...
```


Step 2: Inject SQL into test using @Value

StudentAndGradeServiceTest.java

```
...  
  
@TestPropertySource("/application.properties")  
@SpringBootTest  
public class StudentAndGradeServiceTest {  
  
    @Autowired  
    private JdbcTemplate jdbc;  
  
    @Value("${sql.script.create.student}")  
    private String sqlAddStudent;  
  
    @Value("${sql.script.delete.student}")  
    private String sqlDeleteStudent;  
  
    ...  
}
```

application.properties

```
...  
  
sql.script.create.student=insert into student(id,firstname,lastname,email_address) \  
    values (1,'Eric', 'Roby', 'eric.robby@luv2code_school.com')  
  
sql.script.delete.student=DELETE FROM student  
  
...
```

Step 3: Refactor @BeforeEach and @AfterEach

StudentAndGradeServiceTest.java

```
...

@TestPropertySource("/application.properties")
@SpringBootTest
public class StudentAndGradeServiceTest {

    @Autowired
    private JdbcTemplate jdbc;

    @Value("${sql.script.create.student}")
    private String sqlAddStudent;

    @Value("${sql.script.delete.student}")
    private String sqlDeleteStudent;

    @BeforeEach
    public void setupDatabase() {
        jdbc.execute(sqlAddStudent);
    }

    @AfterEach
    public void setupAfterTransaction() {
        jdbc.execute(sqlDeleteStudent);
    }

}
```

Refactored code

Refactored code

MVC Tests for Student Information



MVC Tests for Student Information

- If we have valid student id, return view name: `studentInformation`
- If we have invalid student id, return view name: `error`

Thymeleaf templates

File: `src/main/resources/templates/studentInformation.html`

GradeBook Home

Receiving student information for:

Eric Roby

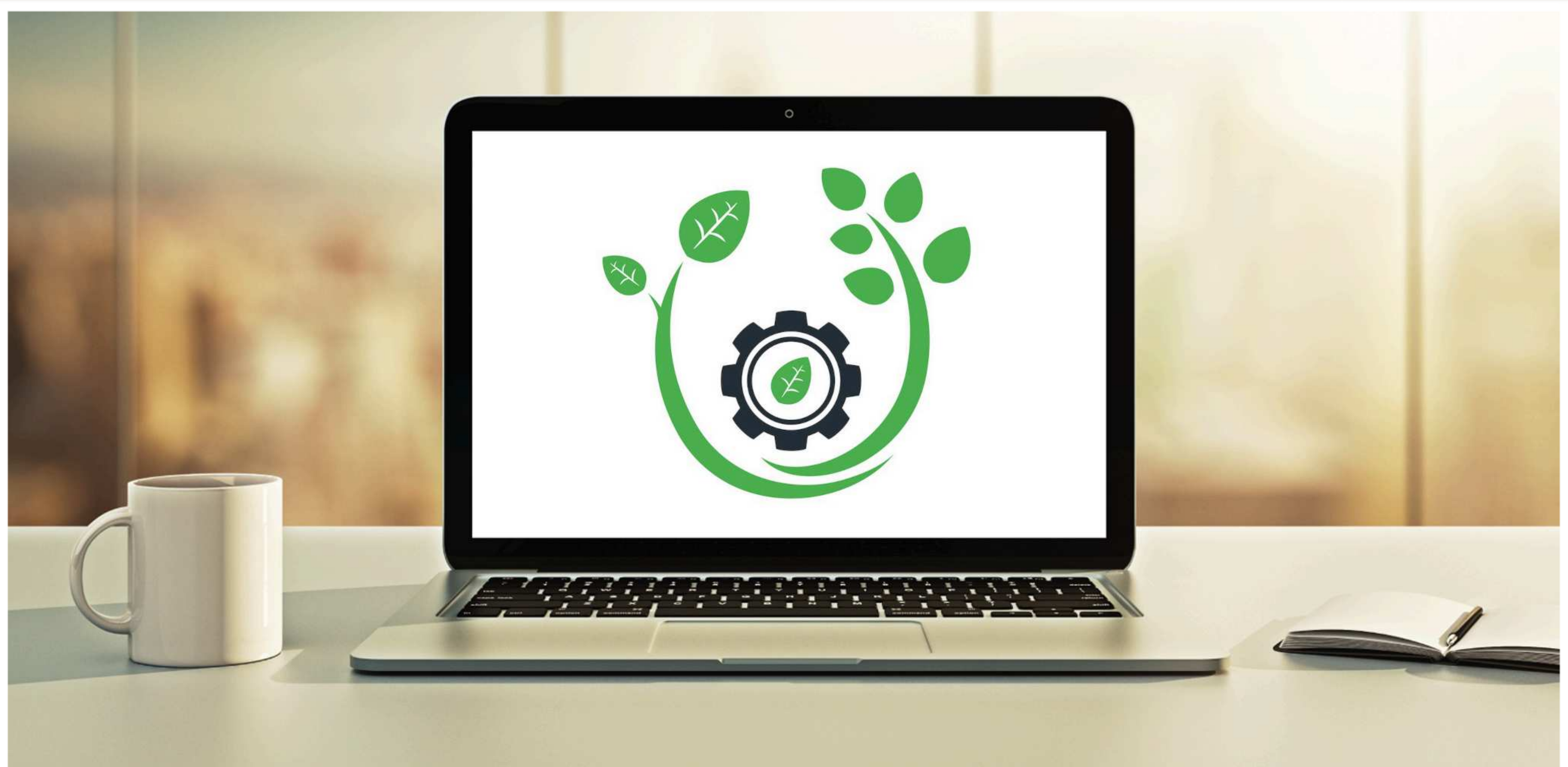
Math Assignments	Science Assignments	History Assignments
Overall: 100	Overall: 100	Overall: 100
100	100	100
100	100	100

File: `src/main/resources/templates/error.html`

GradeBook Home

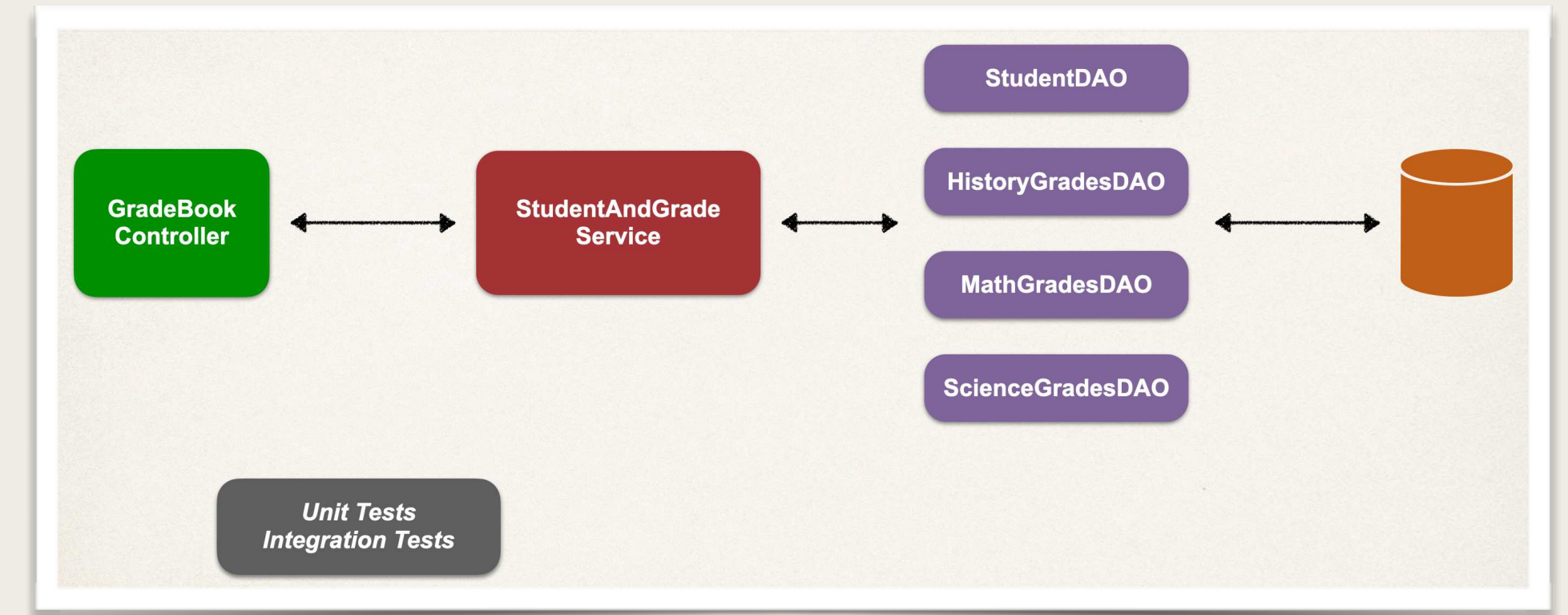
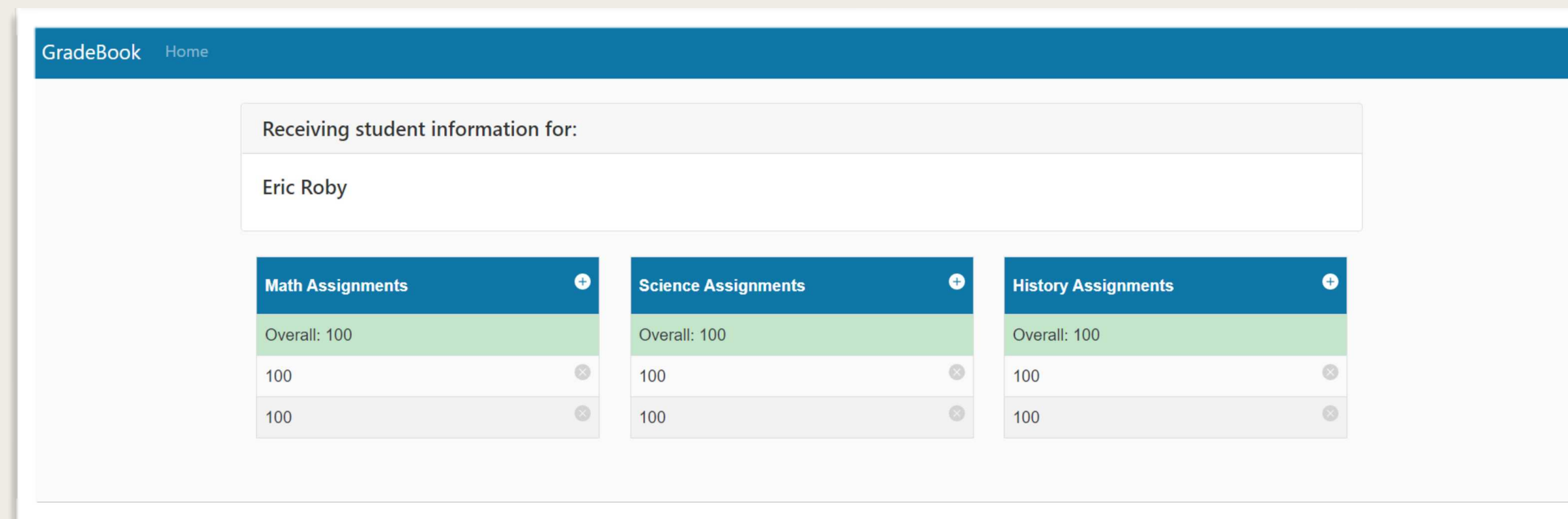
Something went wrong

Create Grades with MVC Controller



To Do: Create Grades

- Currently the app does not support creating new grades via MVC controller
- Apply TDD to add support for this functionality

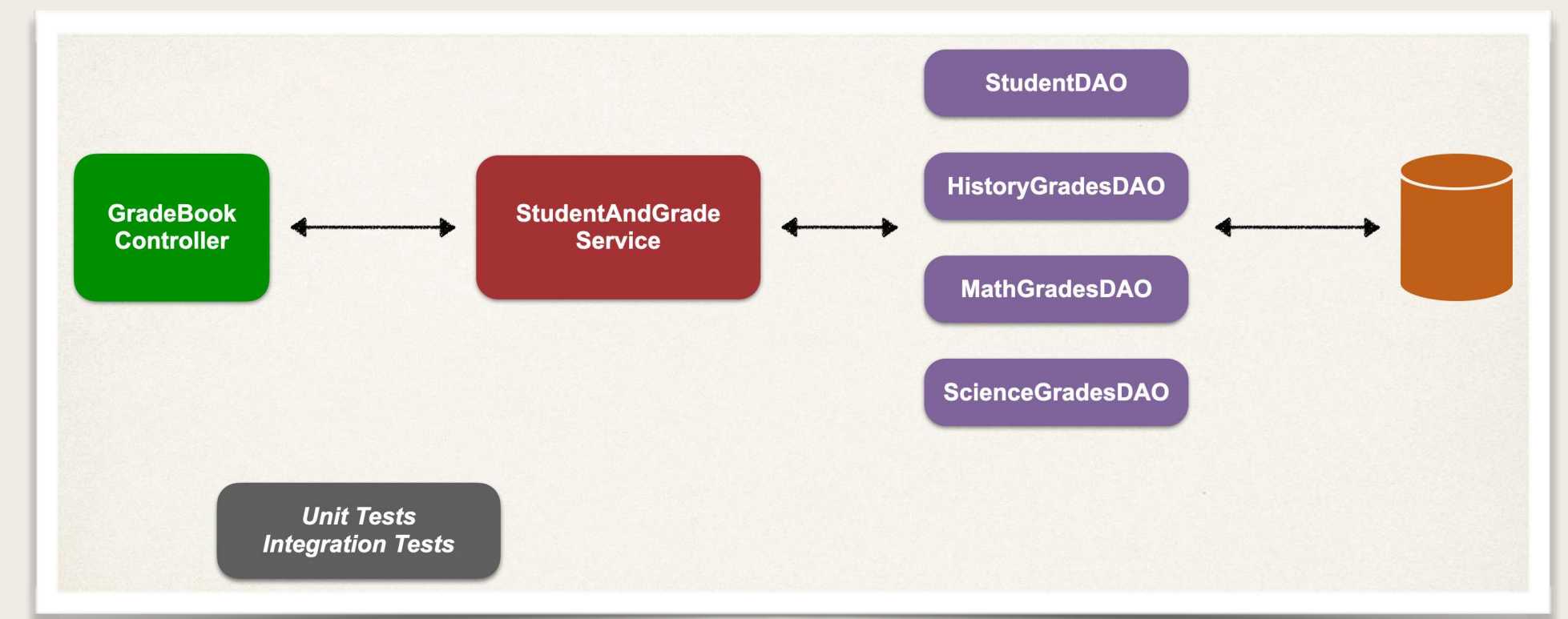
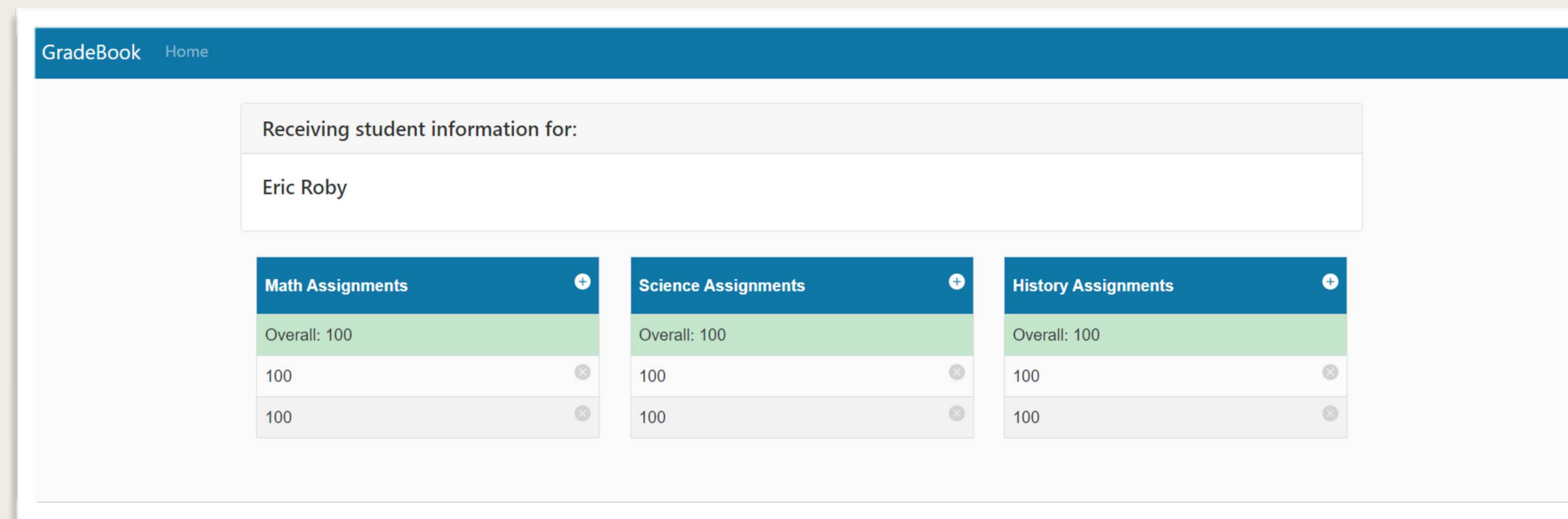


Delete Grades with MVC Controller

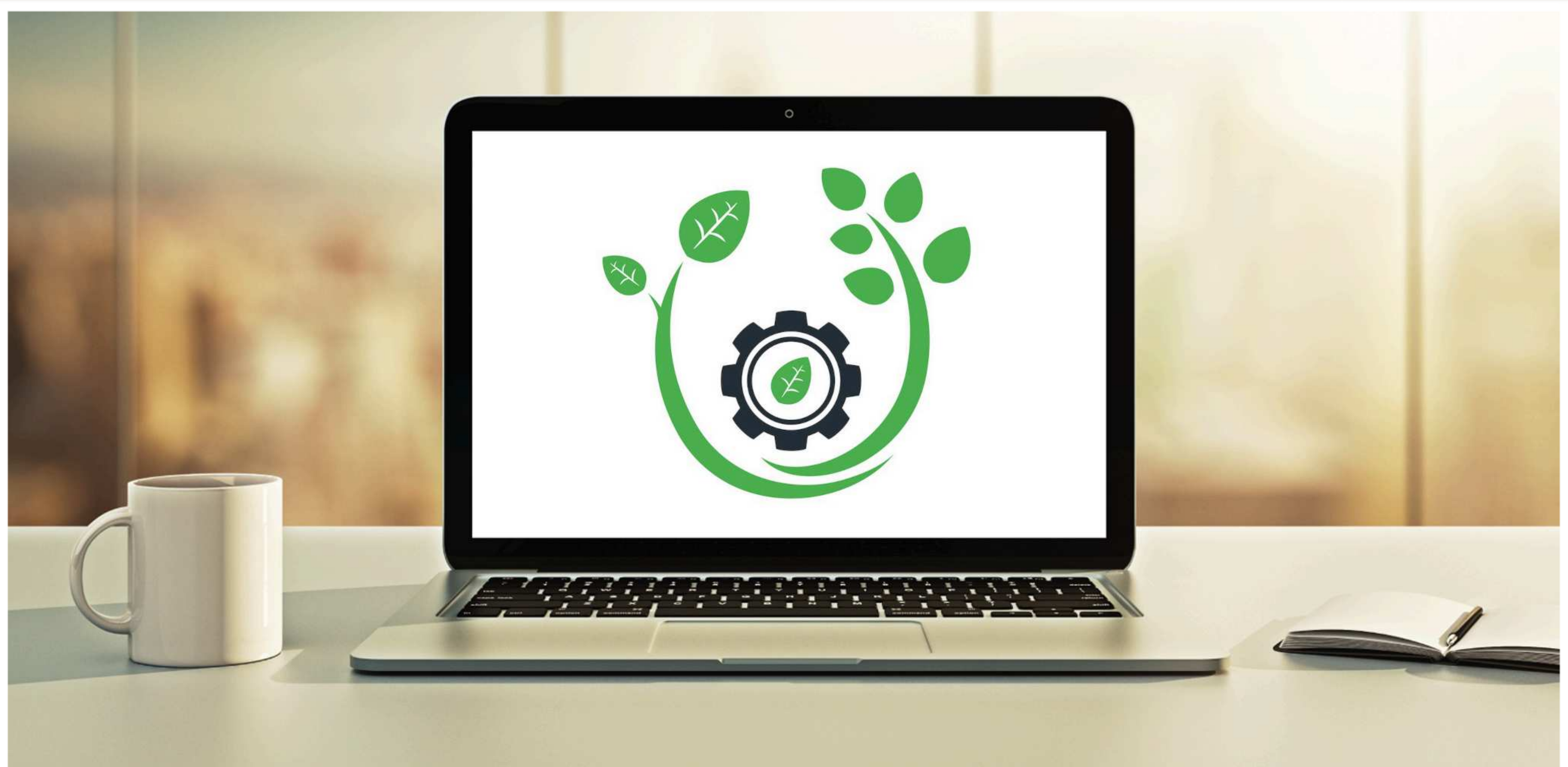


To Do: Delete Grades

- Currently the app does not support deleting grades via MVC controller
- Apply TDD to add support for this functionality



Update Thymeleaf Template Student Information



To Do

- Currently the UI for Student Information has hard-coded data ❌
- Update the Thymeleaf template for Student Information to use dynamic data ✅

Thymeleaf template

File: `src/main/resources/templates/studentInformation.html`

GradeBook Home

Receiving student information for:

Eric Roby

Math Assignments	Science Assignments	History Assignments
Overall: 100	Overall: 100	Overall: 100
100	100	100
100	100	100

