Project 6

Team members: Srinivas Akhil Mallela, Likhitha Katakam**,** Vishal Prabhachandar
Section: CSCI 5448-001

Status Summary

Title: Discussion board
Team members: Srinivas Akhil Mallela, Likhitha Katakam, Vishal Prabhachandar

Work done:
Srinivas Akhil Mallela -
Worked on setting up Gradle for the project to enable easy cross platform dependency and project setup.
Setup XAMPP(MySQL) for DB schema.
Established Hibernate JPA connection to perform CRUD operations on the database.

Likhitha Katakam -
Implemented Spring MVC code for coordination between application components.
Setup Spring boot to launch application.
Worked on some portions of the UI.

Vishal Prabhachandar -
Setup Thymleaf as the template engine for the front end.
Implemented login and registration with spring security to store user details in a secured format.
Worked on some portions of the UI and gradle setup.

Changes and issues encountered:

1. Not many changes since the project 5 ideation. Some orchestrations have been implemented a bit different, but the classes and relations remain the same.

2. Issues faced:
    1. Faced issues setting up spring boot and gradle
    2. Had difficulty in establishing connection between XAMPP(MySQL) and JPA in the spring application
    3. Faced difficulties with coordination between application components.

Pattern:

Singleton -

Singleton pattern is used to ensure that only one object exists per class. This is so that a single instance of a class is present to control the action throughout the execution. In our application there is only one User class which is used to coordinate the various operations.

Proxy -

The proxy pattern is a technique that allows one object — the proxy — to control access to another object — the subject or service. Here the repository classes directly access the MySQL DB using JPArepository which act as the proxies. This helps reduce the complexity of communication with the data source.

MVC -

The MVC pattern is used to relate the user interface to underlying data models and coordinate to relate the several application components. In our application the repositories act as the model, the controller files act as the controller and the HTML files act as the views. This helps separate the application into individual components and aid scalability and maintainability.

Plan for next iteration

We have an estimated development time of 1.5 weeks to finish all the components described in Project 5.

We still have the following tasks to be done:

- Creating MVC model for Threads and Posts to facilitate creation and viewing of threads and CRUD operations for posts
- Creating Hibernate JPA connections to the schema for threads and posts and propagating relations(one-to-many) and data creation as needed. Our schema is already ready.
- Creating UI pages for Threads and Posts to enable all the planned operations.

Given the current state of completion, we are well on track to finish the project on time.

Project 6 class diagrams

https://github.com/vishalprabha/CSCI5448-OOAD/tree/main/Projects/Project6