

Project 7

Title: Discussion board

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Final state of system:

We were successfully able to implement all the initial expectations defined in project 5.

The following features were implemented:

- Secure login and password hashing in storage using Spring security.
- User status dashboard of application usage.
- Thread creation by category.
- View all threads and particular threads based on category.
- View, upvote and delete(if created by user) posts in threads.
- Post an answer or comment in a thread.
- Track all user interaction in the application like questions created, answers and upvotes.

Through proper delegation we were able to successfully complete the tasks. However, we had some not defined targets like a search functionality on threads and dockerizing the application. Unfortunately, due to time constraints we were unable to get to them. Compared to project 5 expectations, some of the orchestration flow in the application and functional codes are different. We were also able to understand/add state pattern to the application.

Project 7 class diagrams

<https://github.com/vishalprabha/CSCI5448-OOAD/tree/main/Projects/Project7>

Third-Party code vs. Original code Statement

We used reference code for Spring Framework and its sub-components, Thymeleaf, HTML/CSS. Reference code was used as a rough guide to ensure we are following the right syntaxes and practices while writing the code. Apart from that, all the code written is original.

Reference code for Spring Framework sub-components, Thymeleaf & HTML/CSS :

1. <https://springhow.com/thymeleaf-form-handling>
2. <https://www.baeldung.com/spring-autowire>
3. <https://www.baeldung.com/spring-thymeleaf-request-parameters>
4. <https://prateek-ashtikar512.medium.com/spring-boot-jpa-entity-listener-fa759e5b73a9>
5. <https://spring.io/blog/2013/07/03/spring-security-java-config-preview-web-security/>
6. <https://docs.spring.io/spring-data/jpa/docs/current/api/org/springframework/data/jpa/repository/JpaRepository.html>
7. <https://docs.spring.io/spring-data/jpa/docs/current/reference/html/>
8. <https://www.baeldung.com/java-config-spring-security>
9. <https://www.thymeleaf.org/doc/tutorials/2.1/usingthymeleaf.html>

Key design process elements used in semester project

1. Identified MVC design flow in the early stages of development.
2. Sought to use existing Spring frameworks to implement some standard components as opposed to writing logic from scratch, employing reusability.
3. Identifying the key relationship between the model, helped in forming the SQL schema early on.