

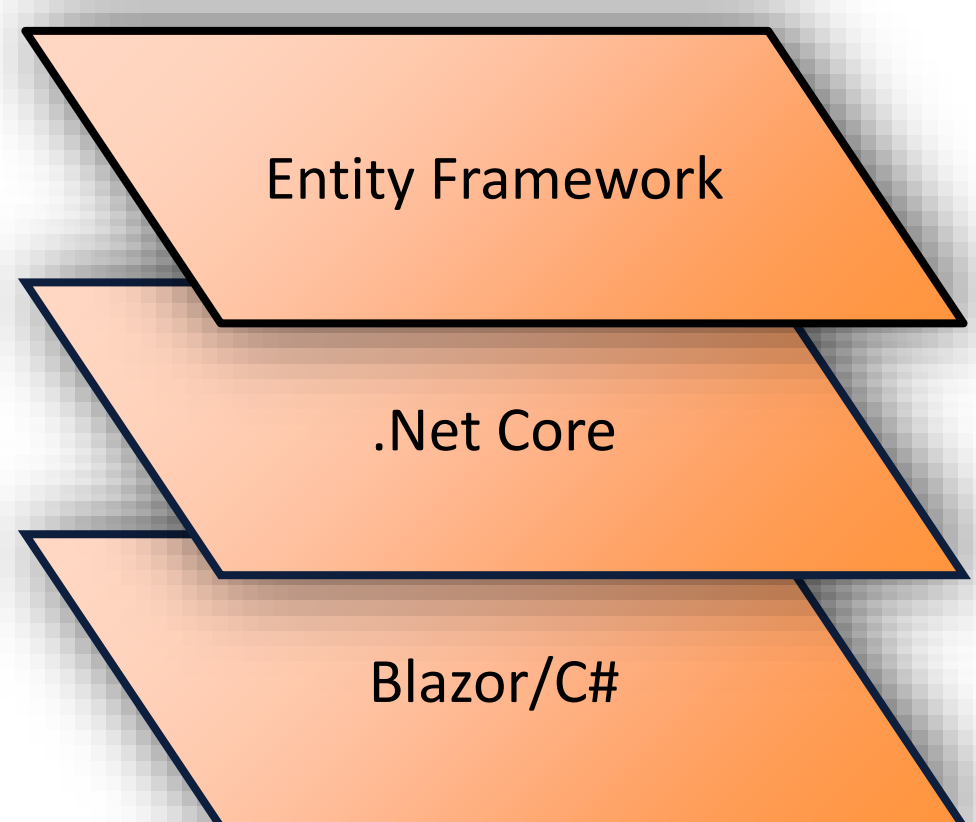
Problem

- There is a need at FIU for a platform that unites undergraduate education and faculty research in a team-based context by means of providing the ability to host and work together to complete large-scale design/discovery projects.
- Previous versions of this program, while largely functional, were prone to error after prolonged use and built using technologies that made the system difficult to maintain without providing as much value as is expected for such an undertaking
- Previous versions of the program also suffered from scope creep in that many features were added to the platform that initially seemed like great ideas but ultimately went largely unused thus making the system more difficult to maintain and cluttered with unneeded functionality.

Requirements

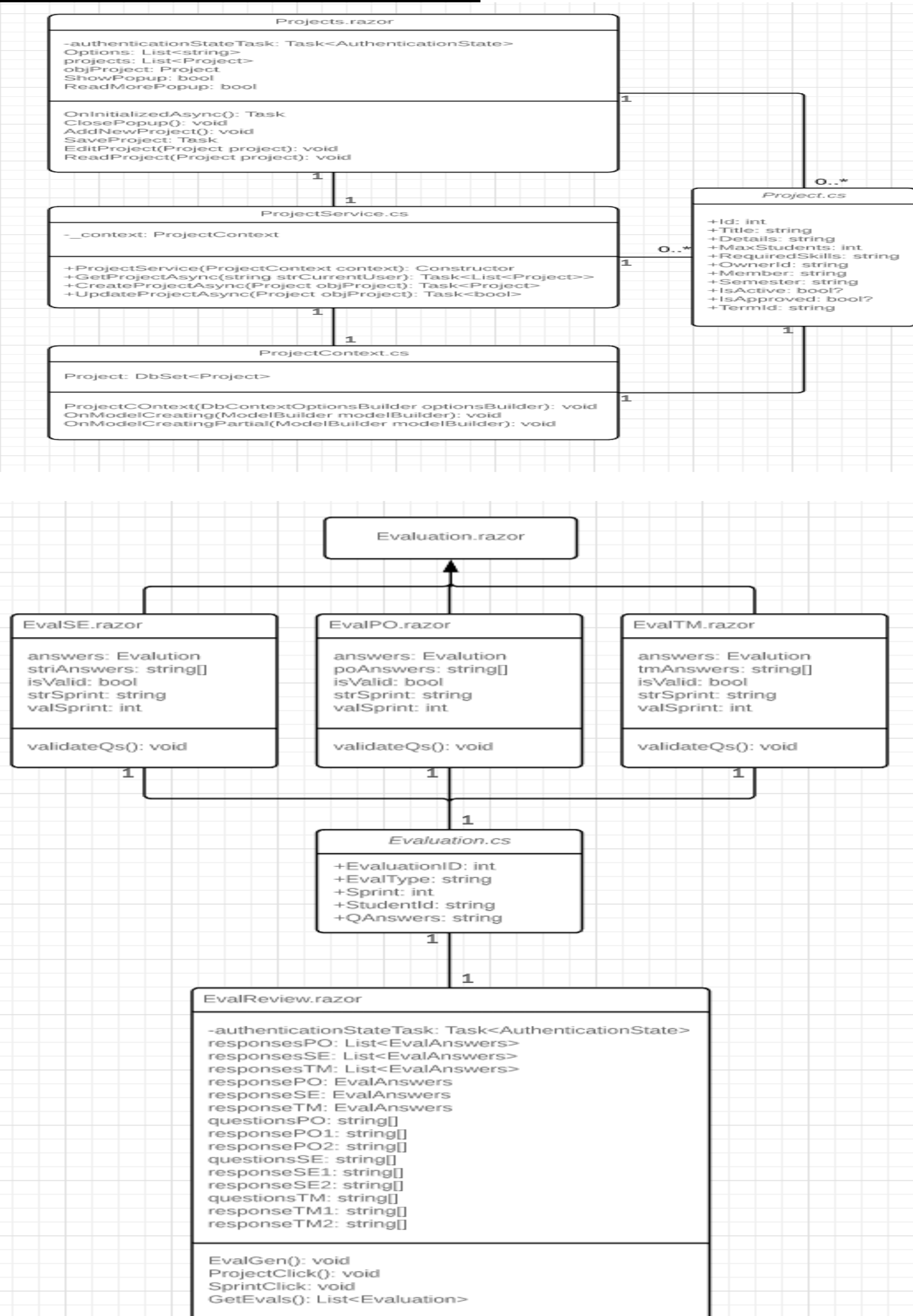
- We were required to rebuild the VIP platform from the ground up using new technologies based around ASP.NET Core Razor Pages focusing specifically on the best core functionalities of the previous site.
- Users must be able to view a listing of available projects.
- Product Owners specifically should be able to propose projects to be added to the system with descriptive qualities matching that of the old system. Students should be able to join a team to work on a project
- The new system should be able to handle functionality currently being done on other platforms. More specifically this includes students being able to submit evaluations at the end of each sprint and the ability for the evaluations to be reviewed and assessed.

System Design

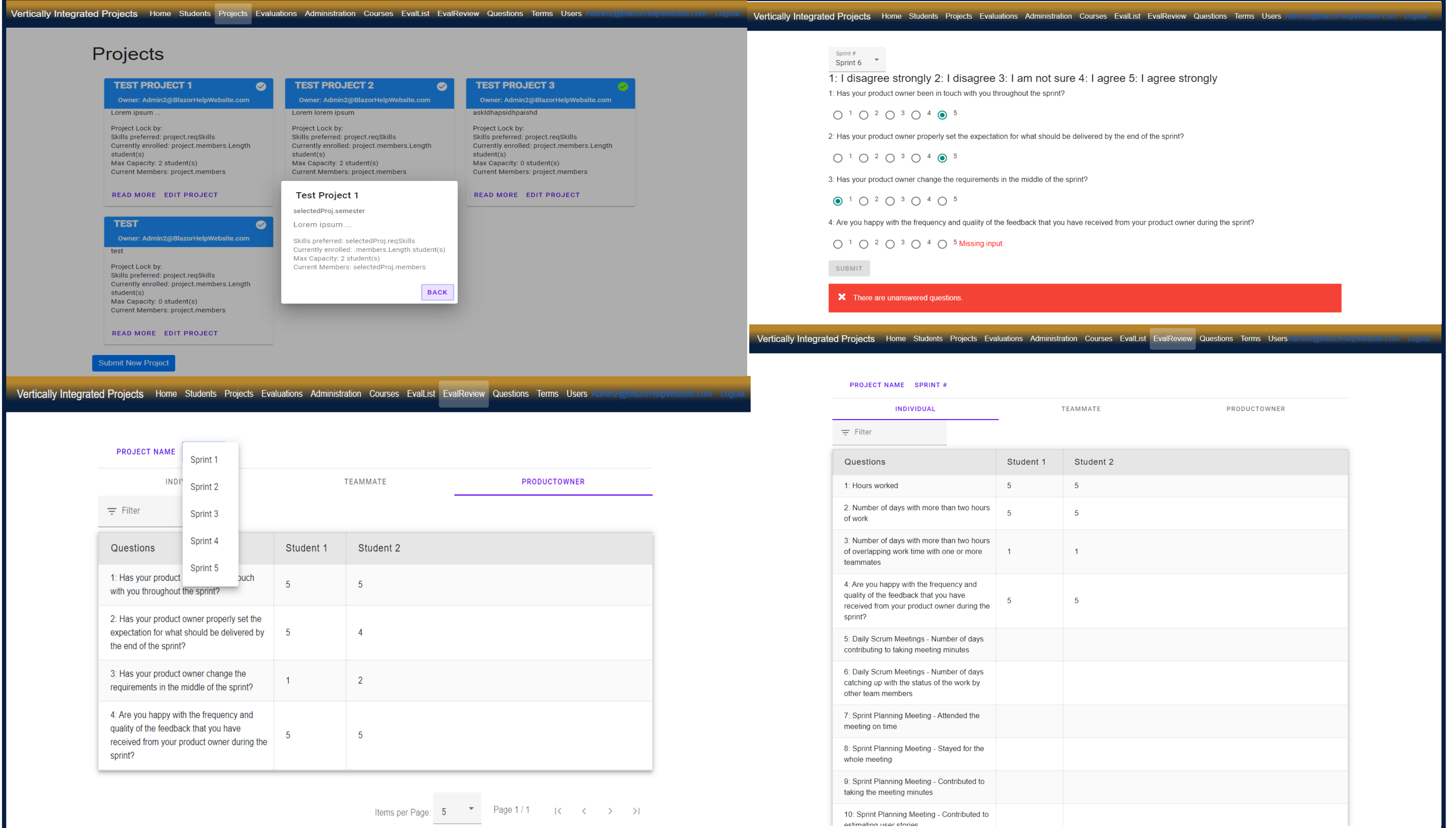


- Object-Relational Mapper (ORM) & Database
- Back-End Framework
- Front-End Framework

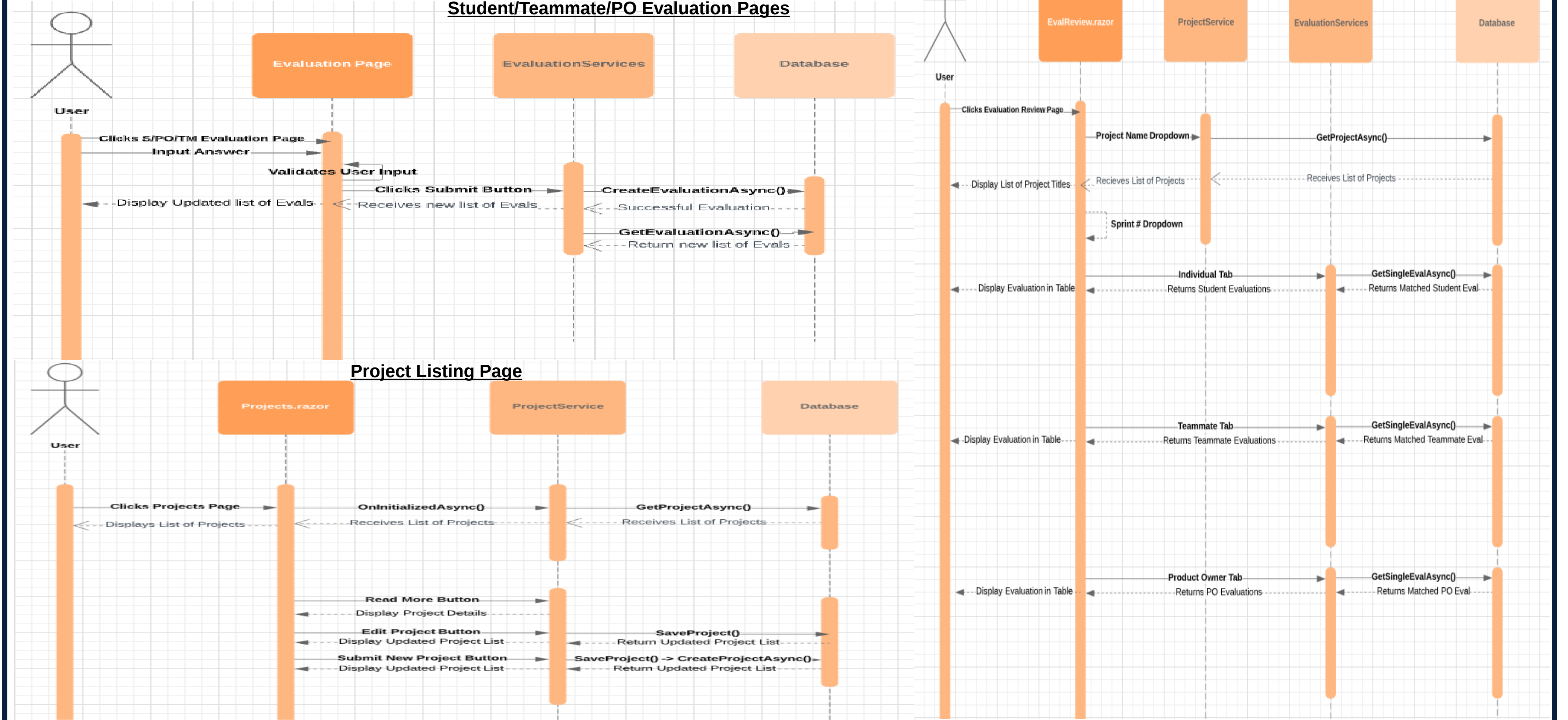
Object Design



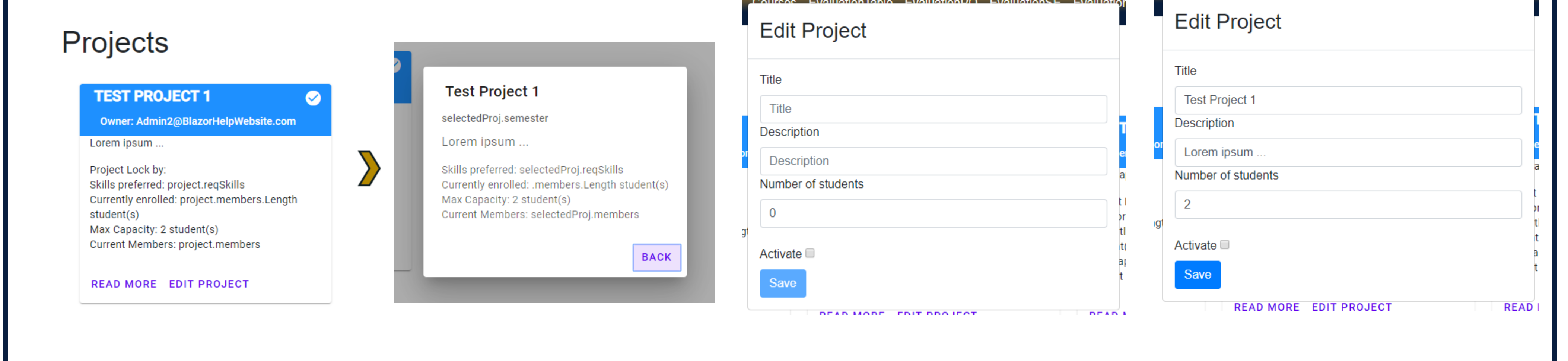
Current System



Implementation



Screenshots



Summary

- In this project I worked largely to implement the backend of all of the platform's functionalities in the Project Listings page, Evaluation pages, and the Evaluation Review pages. The ability to create new projects and evaluations were implemented using the Entity Framework Core in a Data Access project to map models in our code to tables in a local database that could be accessed through relatively simple functions written by myself and members of the SPWA team for our pages rather through a direct SQL query or some other more complicated means.
- The Object Design section of this poster specifically exemplifies the current design of the codebase for interacting with projects in our system as well evaluations.
- In the Implementation section the sequence diagrams should further exemplify how the systems we designed and implemented relate with each other when a user loads the site and interacts with the features of the platform.

Acknowledgement

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