

EECE 430L | Project

Overview

The lab project will be a continuation of the software product we have built throughout the lab. The intention of the project is to allow you to explore greater depths of application development, individually by focusing further on a single platform of your choosing, and collectively by working within a team. Additionally, the project will allow you to develop features with a higher degree of independence and accordingly with an experience closer to that of a typical software development team.

The project will involve taking the existing exchange rate software platform we have built, and adding several enhancements to it. The features to be added are as follows:

1. Providing users with statistics and insights into the development of the exchange rate.
2. Providing users with a graph that shows them fluctuation of the exchange rate over time.
3. Providing a platform for users to perform exchange transactions amongst each other.

You can also optionally add additional features. You can also replace any of the above features with ones of your own choosing, after having received approval first. The above feature definitions are general and so it is upon you to design your features in a way where they add the most possible value to the platform in an intuitive and user-friendly manner. You can, of course, make any needed changes to the existing code to support the new features.

You can work in groups of 3-4 members where each member is responsible for one software platform from the ones we have used in our lab. This means you can either develop your features on all of the platforms we have used, or on 3 of them.

Considering that your project will be a singular software system, you are expected to provide consistent functionality across all interfaces of your system, in addition to a consistent branding/theming across your user interfaces.

Deliverables

Your project will culminate in the delivery of the following in the week of May 9.

1. A presentation with your entire team composed of three parts.
 - An explanation of the functionality of your software system with an explanation of your design decisions.
 - A demonstration of your software product involving all the developed platforms.
 - An explanation and justification of your technical design.
2. Source code for all parts of your project. Your source code (for each platform) should include a **README.md** file that explains how to setup and run the platform.
3. Functional documentation that explains exactly the functionality that your software product delivers to the end user. There is no need for this document to be verbose, however it should provide the reader with an understanding of exactly what your system provides. Your actual project will be evaluated, in part, against how truly it fulfils the promised functionality in this document.
4. Technical documentation entailing the following:

- A brief description of the project structure and general architecture of each software platform, included in the **README.md** of the respective source code repository.
- A brief summary of the high level architecture of your project including the interaction between the different software modules. This can be as simple as a single diagram.
- Documentation of the backend API layer using the openAPI specification. Use this documentation throughout development to facilitate integration with the backend from the other platforms.

Evaluation

The bulk of your evaluation will be based on the delivery of the platform you are personally developing, however a significant part of the evaluation will be based on the overall product delivered involving the other software modules.

Your evaluation will involve the features you have delivered, based on how much value they have provided as an overall product. Evaluation will also be based on how well you have implemented these features, meaning without bugs and unexpected behavior, in addition to the code quality of the features delivered. Finally, you will be evaluated on your presentation of your product and its accurate documentation.