Group 18 Writeup: About EASE

To summarize our project proposal, we started off our initial idea through wanting to promote the awareness of RPI resources and open-source projects to RPI students through creating a website that would display and share relevant information of the sort, such as events and websites. However, we changed our project to house back exams instead, as this would pertain to all students at RPI as well as be able to be easily inclusive to students and educators outside of RPI as well. In our proposal, we wanted to build 3 pages, which consisted of a homepage, an exam upload page, and a back test viewing page. We have succeeded in doing all of these but have changed the idea of how we wanted to implement them. For the homepage, instead of having a search bar for titles/classes, we created a general page that gives a quick summary of what EASE does and created buttons allowing for users to sign up, sign in, and start studying (which sends them to their dashboard or sends to sign in). For our exam upload and back test viewing page, we were able to implement it all into one html file. Through this, we created a taskbar on the side which allows the user to navigate through their dashboard. In this dashboard, it is possible to see your current accounts points and homepage, to upload exams, search through for exams, access the help center (which is not currently implemented), find the about us section, and exit back to the homepage. While this differed from our original proposal as well, this design allowed for cleaner and more functional user experience while looking like a professional webpage.

Our project’s goal is to give access to back tests for students and educators. While there are other alternatives to finding back tests, such as ACMAS an ongoing RCOS project which has a similar goal in mind, there currently is no universal source for back tests and similar resources. With our project, we want to provide a universal system which allows for convenience and availability of these resources, as we realize that searching for back tests online is difficult and hard to locate your exact needs. One great benefit about our system is that even as time passes, the utility of our site doesn’t drop, as back tests can be cataloged and used for decades upon decades.

When building the project, we first created some personas to visualize the problems and wants of users of our project. In total, we created 3 total personas, one is a freshman at RPI who is struggling academically, one is a student at another university that needs these resources to help study, but their university doesn’t support these resources, and finally the last persona is a professor that needs inspiration and practice problems to give their students. These personas were created as we believed that they encapsulate the majority of problems and wants students and educators need. Through these personas, we were able to better identify which features we really want in our project.

For the architecture on the site, we didn’t have many differences in opinion as we all agreed to having a home page, test upload page, and search page or catalog page for the back tests. Along with that, when additional features were added, we would consult the team about it, with most of the time agreeing with the change. We also followed our original project designs, which we built through balsamic and also drew changes to the plan on paper. When implementing our project, we had David work on frontend with HTML and CSS, Andrei with backend with HTML and PHP, and Ruikang who incorporated both of them into a system, working with both as well as JavaScript and jQuery. With this work system, we were able to successfully build a working site.

At the end of the semester, we completed the site. We have a login and sign-up feature which can take track of user profile and points collected. We implemented an interactive landing page and system page, with sign in and sign up buttons that send you to a log in and sign up page, an arrow downwards that scrolls down to show more details about the project, and a button that sends you to the dashboard. We also have animated frontend features with consistent themes, this includes an animated scroll down on button click, an animated side bar which can slide in and out, and buttons that expand or grow upon hover. We also have a consistent color theme of light grey, dark grey, and a pleasant lavender purple. Along with that, we were able to implement a way to pull and display data, which is used in the points counter, and also have a functional back test upload and search feature. Some things we have plans for in the future are to polish our current features and visual features, add displays to our dashboard, add different types of searches, such as having tags, add discussion forum to each back test upload, and also finish implementing the points system. We also need to work on encrypting passwords and improving security as well.