LINK TO UNLISTED YOUTUBE VIDEO

https://youtu.be/vqYZfZhGWzI

TRANSCRIPT

Hi, I'm Johnny and I'll be going over my contribution to our Stonk Machine project.

So, from the start of the project, I worked with the team on the design doc, where I focused specifically on user functionality conceptualizing how users will navigate through our program from a technical point of view, figuring out how classes and methods will interact.

This led to me designing the GUI diagram which also served as a visual guide on how to build our program. Scott and I divided the GUI implementation into 2 main halves where he worked on the user home & asset pages, and I worked on the login portal and admin pages.

We then divided the client-side into a few core areas, where I handled the user and hashing password classes, I also worked with Scott and Alistair on the Unit class too.

During development of the user class, since we had no database at the start, I ended up making all user interaction methods for logging in adding user, updating users etc. When it came time to implement the database, refactoring was easy as I made sure these methods had little to no dependencies and used the strengths of object-oriented programming.

The network connection class is something I worked on with Alistair and Scott, where I developed all the admin interactions that would appear on the admin home as you can see here…

Creating, deleting, updating, and removing users from their units, creating, deleting units, adjusting balances in the credit system, adding, removing, and updating quantity of assets that belong to a unit, creating, deleting, and updating assets, and a few other functions on other pages.

I made sure to cover all avenues in terms of inputs and scenarios where I have made good use of exception handling and when to catch them to display them to the user.

When it comes to the database itself, I worked with Alistair on connecting our client to an SQLite database, where Alistair worked on ports and host, I worked on getting the establish connection class to read the config file for the username and password, then in network connection being able to use this data to insert a default user with admin privileges for whoever uses our program. I'm also very familiar with SQL commands now as I worked on creating tables, inserting, deleting, updating, and quiring rows.

As we wanted to keep the project stable throughout, I made sure to follow test-driven development and created JUnit tests as I developed iteratively. I made sure to achieve black box testing by focusing on a variety of different inputs for boundary and exceptional cases.

I also made sure to achieve 100% coverage with glass box testing to ensure nothing became redundant or broke along the way.

I also worked on the mock objects for the network connection tests with the aid of Alistair and Scott. This was to ensure we could thoroughly and safely test our database interactions without altering a real database, further future proofing our program.

Finally, I worked with Scott to create the README with details on how to deploy our program, helped make sure our code quality was good with insightful in-line comments, finalized the JavaDoc and the detailed design doc and resolved bug fixes along the way.

Here is a brief scroll through my commits showing a consistent contribution throughout the life of the project. I ensured all my commits were insightful and single-purposed with details left for the description. In the video you will see me change repos halfway, this is because we unfortunately had one non-cooperative team member, so we agreed to split off to different repos.

In short, I had the privilege of being able to develop an entire segment, the user accounts, and interactions segment. From doing documentation and diagrams to building the front end, and from the moment a user interacts with the GUI, to connecting and updating the database, with black box and glass box unit testing to validate.

Finally, I had the privilege of working with a great team where we had regular meetings, clear and understanding communication, and followed an agile workflow which was a great experience.