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Mail Client Report

Approach and Project Description:

In our approach, we had an initial team meeting to decide which language would be used. Since some of our group members had some experience with Python, and we heard how good PyQt5 is, we decided to make our email client using Python and PyQt5. We created a mail client that sends and receives emails and it has its own inbox while also using a secure connection with login verification. In our approach, we had decided that we had to split the work into teams, a frontend, and a backend team. The backend team would be in charge of all the required connections and the necessary functions, while the frontend team would create the GUI and make it functional by using the functions created by the backend team. Furthermore, each team divided their work into subtasks for each member so that all work was split equally. We communicated often with each other in order to adjust the design when necessary.

Coding Experience:

Ryan Mercado:

Personally, I did not learn python in any of my classes at CPP however I did have previous experience with some small projects I did in highschool. I was able to use this prior knowledge as well as my knowledge of computer science logic to utilize python in this current project. After the project, I now am comfortable with this language and actually prefer using it when working with others due to its readability and ease of use.

Alex Lin:

This project was fun because of how complicated things were. I had fun helping out with the project's front-end and back-end sides since I had some experience with Python. Overall, this assignment was fun and had a great experience while doing it. The hardest part was the socket connection part since it was the base to run the project, and if we couldn't connect it then we won't be able to do anything with the mail client.

Hugo Leos:

I had very little experience with Python so I decided to join the front end and learn PyQt5. It was a bit difficult to learn as I do not have much experience with

developing GUIs. However, after researching and learning we were able to develop a very simple GUI for our mail client which got the job done but was not what we initially expected. I learned a lot from this project and have a better understanding of python and PyQt5.

Vraj Patel:

I had very little experience with Python before. I have only used python for a basic calculation style project. Throughout this project, I learned how to make functions and call them in Python, which I had no prior experience doing. I think I have a better grasp of Python and why it's different from my main programming language, which is Java.

Alex Hernandez:

I had no experience with python before. But this project and another class assignment has taught me more how to use python. This project also helped me become more relaxed in coding up a GUI. This project was a great experience.

Challenges:

One of the significant difficulties that we face has been time management. Since everyone is busy with school, work, and personal responsibilities, meeting up at times that benefit all parties was hard. But we overcome it by checking in every other day or whenever we can. Github makes completing the assignment easier because anyone can push and pull the code to work on it in their free time. We would assign at least one task/feature to finish, and everyone would participate and try to knock down the task. It wasn't easy at first because some of us were unfamiliar with pulling from and pushing to Github, but it is becoming more straightforward as we become more accustomed to using it. Since some of us had only basic knowledge of the Python language, it made it more challenging, but we got through it since it was not hard to learn it. After all, we all are Computer Science majors and know other languages, so it was easier for us to learn Python. Another difficulty came in the form of understanding the assignment complexity. But we were relieved when we found libraries that helped us with the project.

Conclusion:

Overall, we had an excellent experience programming this mail client. We were able to learn the various aspects that go into making and sustaining a mail client. We were able to combine our programming skills with the information we learned in this class such as SMTP protocol and POP3 protocol and we were able to implement this into our program. Some future aspects are that we would like to customize the GUI more, such as custom buttons with icons and color coordination throughout the client

with the CPP colors. We wanted to add something like sent mail, trash, and junk, and make it similar in features compared to how popular mail clients do today.