Computing Project 1: Drawing Application.

What are the features implemented?

The features that we had implemented were derived from the examples given to us. One of the features being the eraser tool. The eraser tool was a tool that needed some work as a drawing application is incomplete without the ability to get rid of mistakes made when creating different projects. This feature was not difficult to implement as we had done our research into the sort of things we wanted to add. We also added an editable shapes feature into our drawing app. This meant that the users can now edit the shapes which would make the app better to use. Another feature that we added was the random rectangle tool. So, this feature adds a random rectangle onto the canvas which can be resized when still holding the left click. This makes it so that the user can add rectangle shapes into their artwork. We had given a thought to adding the fill tool which would mean users can quickly change the colour of their shapes or the background to a certain colour. After a lot of trial and error we could not get the tool to work the way we intended it to. Problems such as the colour not changing back or the tools not changing to the one that we were trying to use without having to refresh were occurring. This meant that we were unable to add this feature as it was quite complex. Nonetheless, we are satisfied with the features we added to the drawing app.

How have you planned and coordinated development?

So, my group partner and I planned how we are going to split the tasks over a call on discord. We discussed the factors that play in when doing our parts. Such as what things we can do as individuals, our timings for when we can get the work done and when we are able to hand in our part of the code to each other. For this project, I was given the task to add the eraser tool. This was a fairly easy task to do since we had prior knowledge on completing this tool. Once, I had implemented my eraser tool feature into the drawing app, I sent the code over to my partner so he can test my code and add his own touch to the work. For the rectangle tool, we had initially thought of having a normal rectangle. However, my partner suggested that we should make it a random rectangle that adds a different twist to a normal canvas drawing app. Thus, we ended up making random rectangle shapes that can be drawn onto the canvas but to make it user friendly we gave the users the ability to change the shape size by still holding the left click to drag and change the shape size. As a group, me and my group partner had split the tasks successfully between the two of us so we both gave a considerable good amount of effort into our work. We both gave each other criticism and helped organise the code neatly so it is easy to read and understand where certain problems would prop up. We would talk on Discord and share our screen on the voice channel so we could both see each other's work in real time. This meant that we could point out mistakes such as forgetting to comment or not updating our log. This helped us keep on track of finishing the work with our best effort.

How have you structured the code?

We structured the code using indentations which meant that the code was easy to read. We also used comments that meant that we were able to understand our code much better than before. While writing up the code we made several changes to it as we are testing other factors as well such as adding the fill tool which I have discussed earlier.
What are the challenges you faced? There were many challenges we faced when making this drawing application. Some of them were when we tried adding complex features into our app. This included the fill tool. The fill tool had many complications that kept making us restart the program. The fill tool would only work once but then stop the entire application once used. After investigating in the console, we still could not find why certain issues were propping up with our fill tool. Thus, we ended up removing the fill tool as we could not find why it was going wrong. Another challenge we faced was adding comments into our work. This was a common occurrence where we would forget to comment on what the code that we had written up meant or what its intention was. Some parts were code we would write up, use once and then forget to take it out the final program which would mean we spent a lot of time looking for where the code we had written up was that was changing the way some features were acting in our application. After a deep cleaning of our work, we organised it into a much better way to read and write up our code and comments. Lastly, the work was challenging to an extent where we would have to look back on lecture recordings and videos that were given to us.

Self-Evaluation: What would you do differently next time?

There are many things that we will do differently next time such as making the UI user friendly by having the colour palette be a drop-down menu. This will take up less space on the page and have users be open to more colour choices. Another thing that we would do differently is add more features such as a blur tool or a fill tool. This would make the drawing app much more fun to use and accessible. We will also be more organised when writing up our code as we had times where we did not understand what the other person had done because there were no comments on the work. This meant that it was taking longer for us to get back to each other on the project or to complete our side of the coding. We also needed to be more decisive when selecting what project we were going to do as we had changed from music app to draw app multiple times before. This led to a lot of wasting time that we could have spent working on the project. In conclusion, we will need to be more organised when working and we will also need to add more features into our application.