

Question 1

Outline your project and which extensions you are building on to the template. (400 words)

Your answer should include:

Which of the templates you are extending and why have you chosen to do it.

What extensions have you chosen to do. You should include in your answer: any complex coding techniques you will need to use, (such as arrays of objects, constructor functions, nested looping); the complexity of the extension; and any expected challenges you will have implementing it.

I decided to go with the drawing app as my template to extend. The Drawing App has room for improvements. I was able to relate to the complexity and usage of the app. As I use apps like Photoshop and GIMP.

Whenever I use Adobe's Photoshop there are plethora of tools, I can use for designing artworks. The basics like copy and paste function is a simple but yet important tool when it comes to designing an artwork. The first extension that I planned to implement is the cut-paste tool. This tool would make things convenient for the users to paste designs wherever possible on the drawing canvas. This implementation is a simple but yet integral extension for Drawing Apps.

The second extension that I plan to implement are more for design aspect. It is tools like Rectangle shape drawing and Ellipse shape tool. Though basic in design. Artists are able to make digital art with shapes. There is a further addition of a Stamp tool for other irregular shapes. Users will be able to make art with different shapes using this sets of tools.

Lastly will be a complex extension. I planned on implementing is the 'Autodraw Tool.' Google has implemented this tool in one of its Machine Learning (ML) projects called 'Autodraw'. This tool predicts a simple doodle that the user has drawn and comes out with a complex shape similar to what the user doodled. This extension is complex to implement. As it requires a datasets to train the ML to recognise all the drawing dataset to a drawing. Fortunately there is a google API available for me to implement it without the need of trained models and datasets.

The coding techniques used to build these tools uses 'constructor functions,' 'conditional statements,' and 'for' loops. I plan to make some changes to the user interface(UI) to make it more organised.