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STUDENT NUMBER: 200169419/1  
SUBJECT: INTRODUCTION TO PROGRAMMING II

## **INTERIM PROJECT PROGRESS REPORT**

### **OUTLINE**

The template I have chosen to work on for the midterm assignment is the - **Drawing App Case Study**. The reason I chose to work on this template is because I wanted to take it as a challenge as there already are a lot of apps which does all the daily work that we want them to do but I wanted to know what else can be added onto the drawing app to make it better and more resourceful for us.

### **EXTENSION USED**

I have used the *stamp tool* and the *edit shape* tool for the app. I have been successful so far in implementing the stamp tool on my drawing app but I want to work on the edit shape tool and I am still figuring out how to implement it on my drawing app and as well as in a later stage make it better and more interactive for the user for the best experience. The only motive of this app is to make the experience as easy as it can be for the user to work on with.

### **CODING TECHNIQUES**

I have taken help from the p5 library in order to be familiar with and get knowledge about various new JavaScript tools and references to learn and apply it on my app such as Slider function, create buttons, etc. I have also used comments to highlight and direct what code does what operation and it is very important for a code to be neat and clean so that it is easier for the programmer as well as any other person to look at the code and understand the operation and navigate it in the simplest and the most effective and efficient way possible.

### **EXTENSION COMPLEXITY AND CHALLENGES**

I have used the *stamp tool* and the *edit shape* tool for the app. I have been successful so far in implementing the stamp tool on my app, but I am facing a lot of challenges in making the edit shape tool to work with my app. It is a rather a simple but a very tricky task to implement all these operations and sync it with app's other extensions. On a later stage, I am planning to extend these apps for a better experience by introducing different colourful stamps for the user to choose with as well as introduce different customisable shapes.

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## **CURRENT DESIGN WORK**

The current progress of the app has so far been implementing the tools such as Mirror Draw tool and the stamp tool which is working completely fine and syncing up well with the browser.

The ideas that came up after brainstorming was to create a stamp and make the user choose what colour they want the stamp to be, choose the size and number of stamps they want etc. Along with this, I want to create a customisable shape creator which enables the user to choose whether they want to use the shape for just one time or they want to save it as a template for later use.

For the code, I am trying to make it as easy as possible for the viewers to understand what I mean to do with the instructions I am giving via code. The example for which is been given below:

```
JS stampTool.js X
draw-app-masterV2 > JS stampTool.js > StampTool
1  function StampTool()
2  {
3      // Naming the Function
4      this.name = "stampTool";
5      // Setting the Icon
6      this.icon = "assets/smiley.png";
7
8      // Loading the image
9      var smile = loadImage('./assets/smiley.png');//Load Image
10
11     //Size of the stamp
12
13     // Creating a slider to define the size of the stamp
14     sizeSlider = createSlider(3,200,20);
15
16     // Linking it to the parent in Index File
17     sizeSlider.parent("#sizeOfSmileys");
18
19     // Creating a slider to define the number of stamps on the canvas
20     nSmileySlider = createSlider(1,100,1);
21
22     // Linking it to the parent in Index File
23     nSmileySlider.parent("numberOfSmileys");
24
```

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```
25 // Creating a draw Function to create the stamp on the canvas
26 this.draw = function()
27 {
28     // When the mouse is Pressed
29     if(mouseIsPressed)
30     {
31         // Creating a "for" loop for the number of stamps
32         // we want to on the canvas after setting the slider
33         for(var i=0;i<nSmileySlider.value();i++)
34         {
35             // Initializing the value of the size of the stamp with the size of the stamp
36             var size = sizeSlider.value(); // Size of the stamp
37             // Initializing the x position of the stamp
38             var smileX = mouseX - size/2;
39             // initialising the y position of the stamp
40             var smileY = mouseY - size/2;
41             // Calling the Stamp on the canvas as soon as the user presses the mouse
42             image(smile,smileX,smileY,size,size);
43         }
44     }
45 }
46 };
47
```

The ideas that I am thinking of currently to be working with is implementing and syncing up the edit shape tool along with the other extensions and also making the user choose the level of thickness they want the shape to be, the size they want the shape to be in , the number of shapes they want to design , if they design a shape I want give them a choice whether they want to save the shape template that they have constructed for later purpose. This allows user to make whatever shapes they want to make and as well as choose a premade shape from the template provided by the app.

Currently, I have introduced the edit shape tool as well as constructed the whole code for it to work with the app. The icon of the shape tool is perfectly getting shown on the toolbox, but I am still trying to figure out show to implement and sync up the same with my app so that any change doesn't affect the current working of the app and as well as I am able to use the extensions effectively. For a safer side, I have currently commented out the edit shape codes from the app and as soon as I have successfully synced up the extension, I will implement the code.

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### **TIME ORGANISATION**

For the time allocations I have decided to plan out the next week (**Week 13**) working on how to implement the edit shape tool and redesigning the user interface as well as the other extension progress.

Apart from this, on **Week 13**, I will start implement the scissors extension on the app as well. As we are only allowed to a max of two extensions, I want to work on this extension as well so that I can plan and choose whether later I want to stick to the edit shape tool, or I want to brainstorm and implement a better idea for the project.

Apart from this, throughout the rest of the program, I want to spend it on working and implement different extensions and work on the current ones, make the user interface more friendly and easy to use, make random usability testing, debugging the operations and code if it doesn't work, run stability tests, etc.

### **LIST OF EXTERNAL SOURCES UTILISED IN THE PROJECT**

The following is the list of sources used to apply on the project:

- <https://p5js.org/reference/#/p5/createSlider>
- <https://p5js.org/reference/#/p5/push>
- <https://p5js.org/reference/#/p5/createButton>