

University of Regina

Drawing Board
PROJECT PROPOSAL

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Concept

We are aiming to create a drawing board (something that will resemble Apple sketch or Window's Paint). We want to implement an application for creative users to design and illustrate images. We also want our application to be easy enough to use so beginners can easily learn how to use the drawing board, while being advanced enough so more skilled users can take their creative ideas to the next level.

Ambition

The goal with the drawing board is to deliver base features listed below and scale up with new functionalities and functions with each project iteration.

(1st Iteration) Base features will include :

- Workspace
 - Workspace will include drawing art area
 - Toolbox/toolbar on left side of the drawing area for user to select tools
 - Functionality box/bar on top left to manipulate/navigate/edit the workspace and selected tool
- Toolbar
 - Pencil
 - Eraser
- Functionality box/bar
 - Deselecting the tool

After testing/completion of the first iteration with base features, Second Iteration will include the following new features :

- Toolbar
 - Highlighting tool
 - Paint brush
- Functionality box
 - Different stroke size
 - Selecting different colors for tools
 - Different background colors

After testing/completion of first and second iteration, Advanced features for the third iteration are listed below:

- Uploading an image and drawing on it.
- Download the updated/edited drawing

- Advanced tools(selector, free eraser)

Content

Our objective here is to design the structure of the project which allows high cohesion and low coupling. The plan to archive this is by separating workspace, toolbar and functionality bar into different modules. This design will help us scale it up to as many iterations as we want. Different modules will be as following :

Workspace.js - This will consist of a base parent class with all the setup attributes and constructor to initialize the workspace during the setup. Furthermore, we can add different methods and child classes to incorporate new features and functionality.

Toolbar.js /functionality.js - This will consist of a base parent class with all the set up attributes and constructor to initialize and deconstructor to allow use switching between different tools. Furthermore, we can add different methods and child classes to incorporate new features and functionality such as new tools.

Our application will greatly rely on MouseX and MouseY as it is required for drawing and erasing. We will also have several objects representing the different tools and buttons the user can use. This project is dependent on development using javascript and p5 library as well as the research to implement advanced features i.e image upload using image picker controller.

Plan

As shown previously, we have three iterations of features. Our plan for this project is to start with the first iteration, make sure they are working properly and then move on to the second iteration. We want to at least finish the first and second iterations, with the hope we can start implementing our advanced features.