# **W05 Project Idea CSE121B**

**Description of Project:**

This project is a simple and user-friendly online drawing tool. It features a canvas where users can freely draw using their cursor, add shapes including rectangles, circles, ovals, and even text. Each of these elements can be colored using a color picker for more personalized and creative drawings.

There is also the ability to clear the canvas, save the current state of the drawing, and load previously saved drawings.

The intention is to provide a fun and intuitive way for users to express their creativity digitally.

**Project Requirements:**

The project will make use of all the required elements as follows:

* **Objects**: Each shape (rectangle, circle, oval) and the text are created as JavaScript objects, each having properties that define their nature (dimensions, positions, text content) and a method that enables them to be drawn on the canvas. Even the free drawing is stored as an object with properties to define the color, stroke, and coordinates of the drawing.
* **Array Functions**: The drawings on the canvas (shapes, text, and free drawing) are stored in an array. We use array functions to add new drawings to this array and manipulate this array when we need to clear the canvas or save the current state of the drawing.
* **Fetch**: Although not fully implemented in the given code due to the lack of a backend service, the idea is to use fetch API for saving and loading drawings. When saving, we would make a POST request to send the drawings array to the server, which would be saved in a database. When loading, we would make a GET request to retrieve the saved drawing from the server.
* **Modules**: The code is structured using JavaScript ES6 modules. We have separate modules for handling the canvas and drawing operations, for managing the drawings (shapes, text, free drawing), and for interacting with the server (fetch API calls). This modular structure makes the code more maintainable and scalable.