

Shape Generator

Overview:

The Shape Generator is a web application that allows users to create and visualize various 2D shapes. Users can select from a variety of shapes, choose colors, and even input custom coordinates for more complex shapes. The application utilizes HTML, CSS, and JavaScript, with the help of the Bootstrap framework for styling and user interface elements.

Features

- Select from multiple 2D shapes: Circle, Rectangle, Square, Triangle, Ellipse, Star, and Custom.
- Choose a color using a color picker.
- Input custom coordinates for drawing irregular shapes.
- A simple and intuitive user interface.

Prerequisites

To run this project, you will need:

- A web browser (Chrome, Firefox, etc.)
- Basic knowledge of HTML, CSS, and JavaScript.

Installation

Usage

1. **Choose Shape**:

In the dropdown menu, select the desired shape you want to draw (e.g., Circle, Rectangle, etc.).

2. **Choose Color**:

Click on the color picker to select your desired color. The selected color will be used to fill the shape.

3. **Custom Coordinates (Optional)**:

If you select "Custom" from the shape options, you can enter coordinates in the format `(x1, y1), (x2, y2), ...` in the provided input field. Make sure to enter at least two points for the shape to be drawn correctly.

4. **Draw Shape**:

After making your selections, click the "Draw Shape" button. The shape will be rendered on the canvas to the left.

Code Structure

- **index.html**: The main HTML file that contains the structure of the application.
- **Project.css**: The CSS file for styling the application, including layout and design elements.
- **Project.js**: The JavaScript file that contains the logic for drawing shapes and handling user interactions.

Example

When you select a "Circle" and choose a color, clicking "Draw Shape" will render a filled circle on the canvas.

Custom Shape Example

To draw a custom shape:

1. Select "Custom" from the shape dropdown.
2. Enter coordinates like `(100,100), (150,200), (200,150)` in the coordinates input field.

3. Click "Draw Shape" to see your custom shape rendered.