

Assignment: Dice Game Implementation using HTML, CSS, and JavaScript

Objective

Create an interactive dice game where users can roll two dice by clicking a button. Each dice roll should display random images corresponding to numbers between 1 and 6.

Requirements

1. HTML Structure

- **Dice Images:** Include two image elements that will display the dice faces.
- **Roll Button:** Add a button labeled “Roll Dice” that users can click to roll the dice.

2. Dice Images

- Use images to represent the six sides of a die (numbers 1 through 6).
- You can create your own images or use free resources available online.
- Store the images in an images folder within your project directory.

3. CSS Styling

- **Layout:** Center the dice images and the roll button on the page.
- **Design:** Apply styles to make the game visually appealing. Consider background colors, fonts, and hover effects.
- **Responsive Design:** Ensure the game looks good on different screen sizes.

4. JavaScript Functionality

- **Random Number Generation:** When the “Roll Dice” button is clicked, generate two random numbers between 1 and 6.
- **Image Update:** Change the src attribute of each dice image to display the corresponding image based on the random numbers.
- **Continuous Play:** Ensure that each click results in a new random roll of the dice.

5. Optional Enhancements (Extra Credit)

- **Display Sum:** Show the sum of the two dice after each roll.
- **Roll Counter:** Keep track of how many times the dice have been rolled and display this number.
- **Winning Condition:** Add a message that displays when the user rolls doubles (both dice show the same number).

Project Structure

1. **index.html:** The main HTML file containing the structure of your game.
2. **styles.css:** External CSS file for styling your game.
3. **script.js:** External JavaScript file containing your game’s functionality.
4. **images/:** Folder containing your dice images (dice1.png, dice2.png, ..., dice6.png).

Guidelines

- **Code Quality:**
 - Use semantic HTML elements where appropriate.
 - Comment your code to explain how key parts function.
 - Follow best practices for naming conventions and code organization.
- **Testing:**
 - Test your game in at least two different web browsers.
 - Ensure there are no errors in the console.

Submission Instructions

Submit all project files in a git repository

Include a short README file with:

1. Your name.
2. Instructions on how to open and play the game.
3. Any additional features you added.