

Project Title	Basic Calculator
Technologies	HTML, CSS, JavaScript
Project Difficulties level	Hard

Project Description: In this assignment, you will create a basic calculator using HTML, CSS, and JavaScript. The goal of this project is to develop a functional calculator that can perform arithmetic operations, such as addition, subtraction, multiplication, and division. This project will help you practice your front-end development skills and enhance your understanding of web technologies.

Project Requirements:

User Interface:

- Create a user-friendly interface for the calculator. Design a layout that includes a display for input and results.
- Include buttons for digits (0-9), decimal point, and operators (+, -, *, /).
- Add special buttons for "Clear" and "Equals."

Functionality:

- Implement the core calculator functionality using JavaScript.
- Users should be able to enter numerical values, perform calculations, and see the results on the display.

Operations:

- The calculator should be capable of performing basic arithmetic operations: addition, subtraction, multiplication, and division.
- Ensure that the calculator follows the correct order of operations (e.g., BODMAS/BIDMAS).

Input Handling:

- Handle user input accurately. Ensure that the calculator responds to button clicks and keyboard input.

Error Handling:

- Implement error handling to handle cases like division by zero or other mathematical errors.

Extra Challenges (Optional): You can enhance your calculator by adding more advanced features, such as square root, percentage calculations, or memory functions (M+, M-, MR, MC).

Submission Guidelines:

Create a directory or GitHub repository for your project.

Include an HTML file for the calculator's structure, a CSS file for styling, and a JavaScript file for functionality.

Provide clear comments in your code to explain its functionality.

Write a README file that describes how to use your calculator and any additional features you've added.

Test your calculator thoroughly and ensure it works as expected.

Assessment Criteria: Your project will be evaluated based on the following criteria:

- **Functionality:** Does the calculator perform arithmetic operations correctly?
- **User Interface:** Is the interface user-friendly and visually appealing?
- **Code Quality:** Is the code well-structured, and are best practices followed?
- **Error Handling:** Does the calculator handle errors gracefully?
- **Extra Features (if included):** Do the additional features work as expected?