

Calculator

Project Report

Project Title: Calculator

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1. Introduction

This report details the development of a simple calculator application designed to perform basic arithmetic operations. The project aims to demonstrate fundamental programming concepts and provide a user-friendly interface for performing calculations. The calculator is built using HTML, CSS, and JavaScript.

2. Project Description

The calculator application includes the following features:

Basic Operations: Supports addition, subtraction, multiplication, and division.

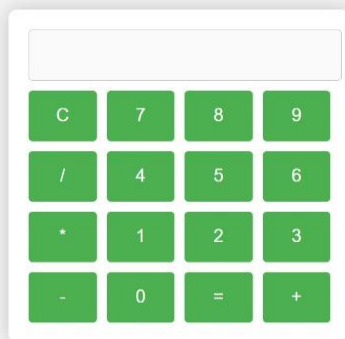
Clear Functionality: Allows users to reset the input.

Display: Shows the current input and the result of calculations.

The target audience includes anyone needing a simple tool for performing basic arithmetic calculations.

3. Architecture and Design

The calculator follows a client-side architecture, where all components are managed within a single HTML file and styled using CSS. The design is responsive, ensuring usability on various devices.



4. Development Process

The project followed a structured approach to development:

Methodology: Agile development, allowing for iterative improvements based on feedback.

Tools Used

Text Editor: Visual Studio Code

Version Control: Git for managing changes

Browser Developer Tools for debugging and testing

5. Implementation

Key features implemented in the project include:

- **HTML Structure:** Utilized semantic HTML for better accessibility.
- **CSS Styling:** Designed a clean and modern interface with clear buttons and a display area.
- **JavaScript Functionality:** Implemented logic for performing arithmetic operations.

6. Testing

The application was tested across various browsers (Chrome, Firefox) and devices (desktop, tablet, mobile) to ensure consistent performance. Testing methods included:

Functional Testing: Verified that all buttons and functions worked correctly.

Usability Testing: Gathered feedback from users regarding ease of use and interface clarity.

Visual Testing: Ensured the design appeared correctly across different screen sizes.

All identified issues were resolved, resulting in a smooth user experience.

7. Conclusion

The calculator project successfully achieved its goal of providing a simple, user-friendly tool for performing arithmetic calculations. Through this project, I gained valuable experience in web development, particularly in HTML, CSS, and JavaScript. Future enhancements could include more advanced mathematical functions and a better design for improved user interaction.