

Uni Project Analysis Report.

1. Introduction

This project aims to develop a functional and user-friendly Calculator Web Application using HTML, CSS, and JavaScript.

The system allows users to perform basic arithmetic operations such as addition, subtraction, multiplication, and division.

Since the focus on the projects is on how to create and make projects we made the our project target simplicity and usability.

2. System Overview

The system consists of three main components:

- A display panel, where expressions and results are shown.
- Numeric buttons (0-9).
- Operator buttons including (+ - × ÷ . C =).

When a user presses a button, the value is added to the display.

When the equal (=) button is pressed, the expression is evaluated and the correct result is shown.

3. Functional Requirements:

1. The user shall be able to enter numeric values
2. The user shall be able to select mathematical operators
3. The system shall evaluate the expression entered by the user
4. The system shall display the result
5. The user shall be able to clear the screen using the C button

4. Non-Functional Requirements:

1. Usability:
The interface must be simple, readable, and easy for any user to understand.
2. Performance:
Calculations must be processed instantly without delay.
3. Reliability:
The system must not crash when invalid expressions are entered. Instead, it should display an error message.
4. Maintainability:
The code must be readable, modular, and easy to update in the future.

5. Use Case Description:

Use Case: Perform Calculation

Main Scenario:

1. User presses numeric buttons
2. User presses an operator
3. User continues building an expression
4. User presses = System evaluates the expression
5. System displays the result

Alternative Scenario:

- If user enters invalid expression → System displays "Error"