

INTRODUCTION:

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- UNIVERSITY ROLL NUMBER : 2300290120232
- Branch: Computer Science
- Year: 2
- SECTION :D

Project Report: Calculator Application

1. Introduction

The Calculator application is designed as a simple tool for performing basic arithmetic calculations. The primary goal is to offer a convenient way to carry out everyday calculations, such as addition, subtraction, multiplication, and division. This project provides an easy-to-use calculator for quick calculations.

2. Objectives

The main objectives of the Calculator project are:

- To create a functional, user-friendly calculator with basic arithmetic operations.
- To ensure the calculator is easy to use and displays results accurately.

3. Scope of the Project

This project's scope includes:

- Implementing core arithmetic functions: **addition, subtraction, multiplication, and division.**
- Designing a clean, simple user interface with clearly labelled buttons.

4. Methodology

The project was developed using a **Step-by-Step approach**:

1. **Define Requirements:** Identified the core functions for a basic calculator.
2. **Design and Layout:** Created a simple UI layout with buttons for numbers and operations.
3. **Implementation:** Developed the arithmetic functions and linked them to the UI.
4. **Testing:** Tested each function for accuracy.

5. Design & Implementation

- **Technology:** The calculator was developed using **HTML, CSS, and JavaScript** for a web version or **Python** for a desktop version.
- **Features:**

- Basic arithmetic operations: addition, subtraction, multiplication, and division.
- Simple UI with buttons for each number and operation.
- **Error Handling:** Basic error messages for invalid operations, like division by zero.

6. Testing

- **Function Testing:** Each arithmetic function was tested to ensure it provides correct results.
- **Usability Testing:** Conducted testing to ensure the buttons are easy to use, and the layout is intuitive and user friendly.

7. Challenges Faced

- **Division by Zero:** Handled errors for division by zero to prevent crashes.
- **User Interface:** Ensured buttons are clear and appropriately spaced.

8. Conclusion

The Calculator application is a functional, simple tool for basic arithmetic. It's easy to use and accurate, making it a useful everyday tool. Future versions may include additional functions like square root and percentage calculations.