CALCULATOR

Project Overview

The Scientific Calculator project is a web application that provides users with advanced mathematical functions in addition to basic arithmetic operations. The application is designed to handle trigonometric, logarithmic, exponential, and power functions. It is built using HTML, CSS, and JavaScript and leverages Bootstrap for a responsive and visually appealing interface.

Objectives

- Create a user-friendly interface for performing scientific calculations.
- Implement functionalities for basic arithmetic operations as well as advanced scientific functions.
- Ensure the application is responsive and works seamlessly across different devices and screen sizes.

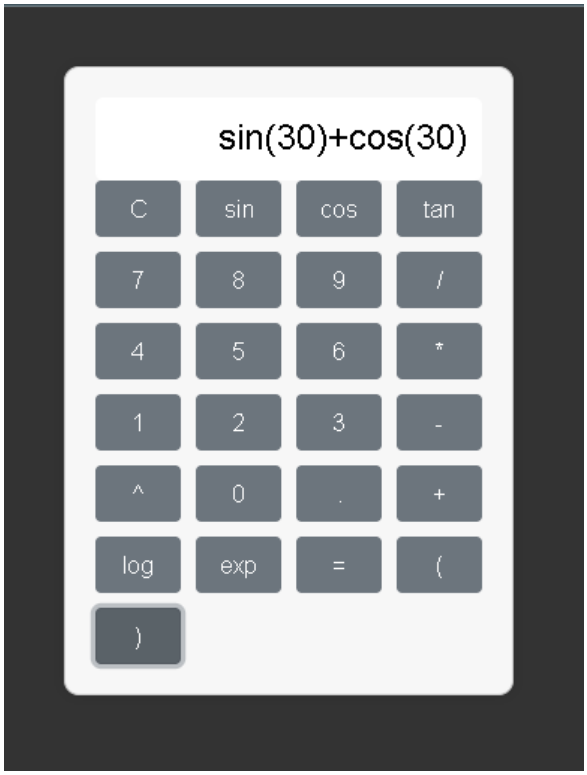
Tools and Technologies

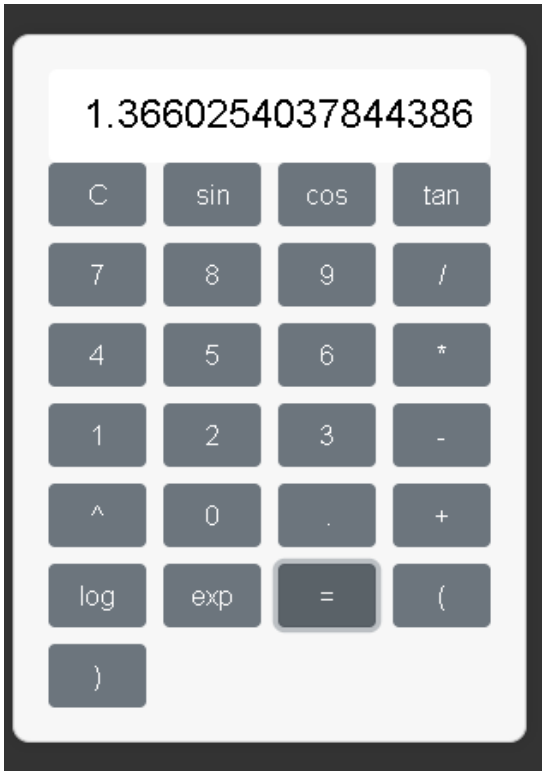
- **HTML**: Used for structuring the web page.
- **CSS**: Used for styling the web page and ensuring it is visually appealing.
- **JavaScript**: Used for adding interactivity and dynamic behavior to the application.
- **Bootstrap**: Used for creating a responsive layout and enhancing the UI with pre-designed components.

Features

- **Basic Arithmetic Operations**: Users can perform addition, subtraction, multiplication, and division.
- **Trigonometric Functions**: Functions such as sine, cosine, and tangent are available for angle calculations.
- **Logarithmic and Exponential Functions**: Users can perform logarithmic and exponential calculations.
- **Power Function**: The application supports calculations involving raising numbers to a power.
- **Clear and Reset**: Users can clear the input field to start a new calculation.
- **Result History**: The application keeps a console log of all calculations performed during the session.

Implementation





Testing

The application was tested on various devices and browsers to ensure compatibility and responsiveness. All mathematical functions and operations were tested to ensure they return accurate results.

Conclusion

The Scientific Calculator project successfully provides a comprehensive tool for performing both basic and advanced mathematical calculations. The project demonstrates the use of HTML, CSS, JavaScript, and Bootstrap to create a functional and visually appealing web application. Future improvements could include adding more advanced mathematical functions, a more detailed result history feature, and enhancing error handling.