

Project Documentation

Project Title:

All-in-One Calculator

Project Overview:

The All-in-One Calculator project is designed to provide users with a comprehensive suite of calculators to simplify various mathematical, geometrical, financial, and health-related calculations. The objective is to create a single platform for users to solve diverse problems efficiently without switching between different tools. This project focuses on user-friendliness, performance, and modularity to handle a wide range of calculations seamlessly.

Team Details:

Team Name: Web 02

| Name | Email | Contact | Role |
|---------------|----------------------------|------------|----------------------|
| Ritu (TL) | ritujha0520@gmail.com | 9868575203 | Front-End Developer |
| Ashish Kumar | ashishkr8802@gmail.com | 8920143166 | Front-End Developer |
| Amir Hussain | amirhussainremba@gmail.com | 9334015417 | Back-End Developer |
| Archit Banait | archit.7537@gmail.com | 9545157537 | Back-End Developer |
| Tanmita Roy | tanmitaroy0112@gmail.com | 6370306165 | Full-Stack Developer |

Project Technologies:

Frontend:

- HTML5
- CSS3
- JavaScript

Backend:

- Node.js
- Express.js
- EJS

Database:

- MongoDB

Other Tools & Frameworks:

Git & GitHub (Version Control) Postman (API Testing)

Project Setup:

Prerequisites:

Need to have a node environment in the system

Can install nodemon after installing npm for live server updates

Install Dependencies: npm install

How to access the Webpage:

Download the Zip File

Extract all the Files in the folder

Run the index.js file in the src folder using command “node src/index.js” or “nodemon src/index.js”

Testing the APIs: Use Postman or your browser to test various calculator routes by navigating to their respective endpoints.

Project Resources / References: Google, Entire team of Web 02

Key Features:

-Navigation Bar: Includes links to the home page, sign-in, and sign-up options.

-Categories Section: Features multiple calculator categories like Financial, Scientific, Health, Geometry, and Conversions

-Carousel: Highlights featured calculators with a visually appealing slider.

-About Section: Provides an overview of the application's purpose.

-Review Section: Displays user testimonials.

-Calculator Categories

1.Financial Calculators: Simple and Compound Interest, Salary, Retirement, and more.

2.Scientific Calculators: Handles advanced mathematical functions.

3.Conversion Calculators: Length, Currency, Time, etc.

4.Mathematics and Algebra: Complex numbers, inequalities, factorization.

5.Geometry Calculators: For shapes like triangles, circles, cones.

6.Health and Fitness: BMI, BMR, Calorie, Ideal Weight.

-Authentication

Sign-In Page: Allows users to log in using email/password or Google.

Sign-Up Page: Supports account creation with a secure and user-friendly interface.

-Responsive Design

Ensures usability on devices of all sizes.

Features like dropdown menus, animations, and responsive grids enhance the user experience.

-Styling and Interactivity CSS: Used for an aesthetic and responsive layout.

JavaScript adds dynamic features like expanding dropdowns, interactive calculators, and form validation.