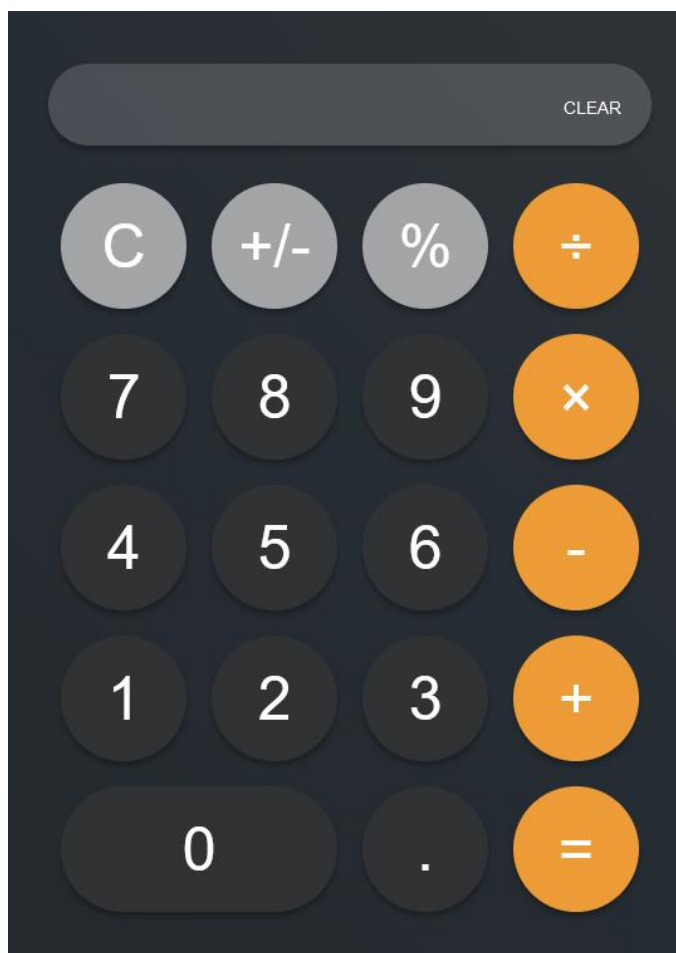


## Assignment #2

Project Name	Calculator
Repository	<a href="https://github.com/membaby/calculator">https://github.com/membaby/calculator</a>
WebApp URL	<a href="http://embaby.tech:6401/">http://embaby.tech:6401/</a>
Student Name	Mahmoud Tarek Mahmoud Embaby
Student ID	20011800
Supervisors	Dr. Khaled M. Nagi & Eng. Ismail Mamdouh Elyamany



## 1. Tech Stack:

- This project uses [Angular web framework](#). Angular is a TypeScript-based web application framework led by the Angular Team at Google.
- For backend (evaluating the results), the app uses [Spring boot framework](#).

## 2. Features:

TITLE	DESCRIPTION
AVAILABLE ON THE INTERNET	Users can access the calculator app from anywhere directly through the application URL: <a href="http://embaby.tech:6401">http://embaby.tech:6401</a>
EASY TO USE INTERFACE	The interface is simple to use, just like the iPhone calculator app!
SERVER-SIDE EVALUATION	Calculations are evaluated on the server-side (Spring boot) to ensure highest level of accuracy and the ability to solve complex equations.
IMMEDIATE RESULTS	The program is efficient, does not consume a lot of resources and is lightning fast.



### 3. Design Overview:

HTML is used to build the program interface, and [CSS](#) is responsible for the beauty!

## Main Window



### 4. Pre-Requisites:

- Java 17.0.2
- Spring boot 3.0.0 (Maven) with Spring Web dependencies
- Angular CLI: 15.0.1
- Node: 18.12.1
- Package Manager: npm 9.1.2
- lite-server package

### 5. Behind the Scenes:

When a user enters an input equation, presses ENTER or clicks on the "=" button, a GET request is sent to the backend with the equation to be evaluated. The backend receives the equation, evaluates it, and returns a JSON Response with the result or an error message. The front end process the returned Response and displays the result to the user.

