iOS calculator with Ionic framework

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Development Setup

Objective: Build a functional calculator with a mobile-friendly UI
IDE: Visual Studio Code
Dependencies:
- ionic CLI(npm install -g @ionic/cli)
- Capacitor (npm install @capacitor/cli)

Tools: Xcode

Project Initialization

Create Ionic Angular project:
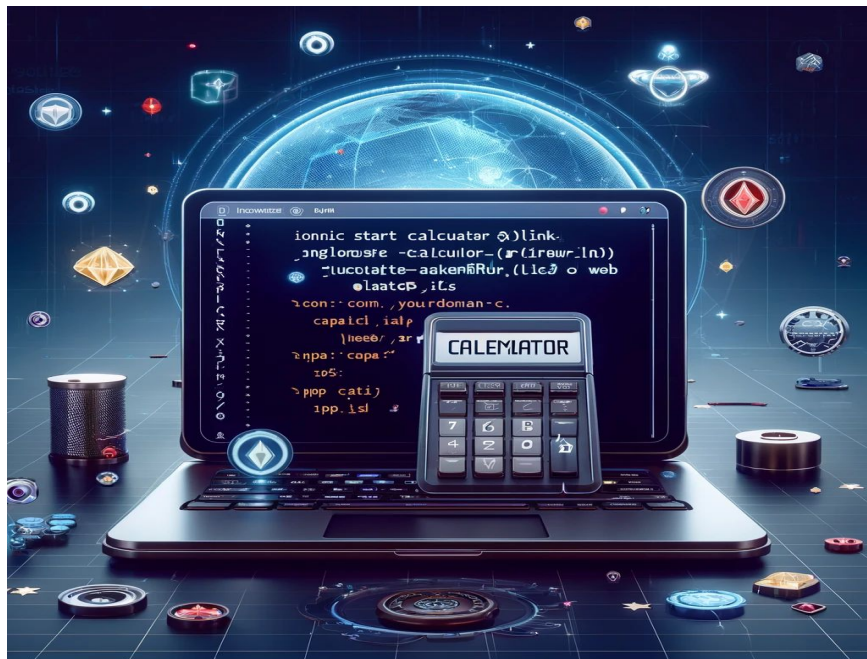- ionic start calculator blank - - type = angular

Initialized Capacitor:
- npx cap init Calculator
  "com.yourdomain.calculator" -
  -web-dir=www

Add the iOS platform:
- npx cap add ios

Configured capacitor with plugins:
- capacitor.config.json

Development work

UI Development Built:

- ion-header, ion-content, ion-button

Logic Implementation Managed in:

- home.page.ts

Testing & Debugging:

- Browser: ionic serve
- iOS: npx cap copy ios, open App.xcworkspace
- In production: ionic build –prod

Calculator UI Features

UI Elements:

- Display area for operations
- Button with standard calculator layout
- Color for the application and operation buttons

Functionality:

- Basic arithmetic operations
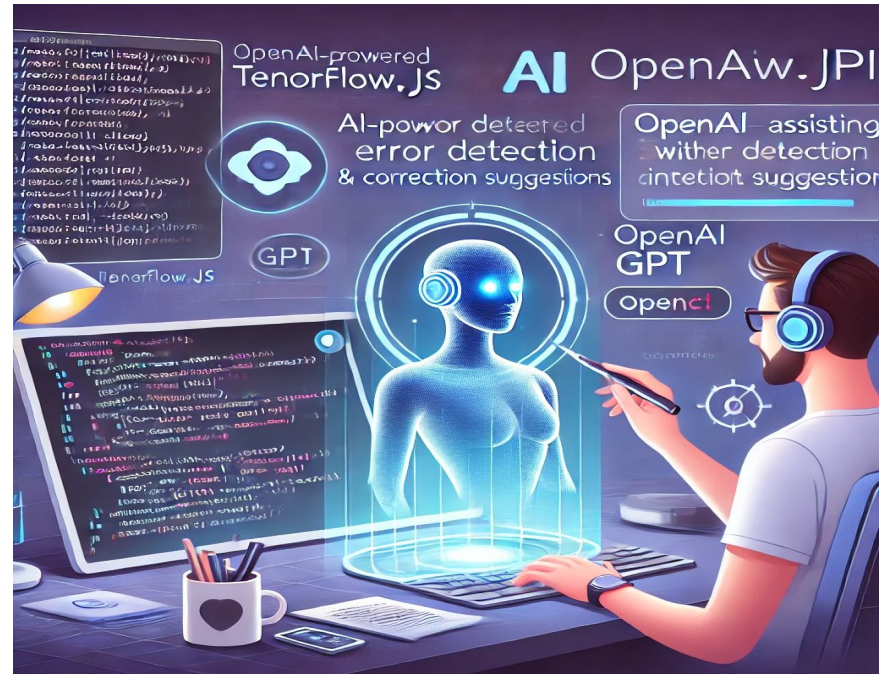- Proper number formatting

Lesson Learned

- Working with Ionic and angular development and components
- Capacitor plugins simplified native functionality
- Debugging challenges with different challenges on the calculator
- Deployment process that understand the integration of iOS in Xcode.

Future AI Integration

- AI idea is to provide AI-powered error correction
- Tools i would use: TensorFlow.js
- How to do it:
    - I probably use open AI's GPT API to help correct errors in input. AI can suggest the correct format when it is a mistake.

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Github link

https://github.com/Santimuri367/CalculatorIS322/tree/main