ARWayz-Campus Navigation System

Google Maps API for Outdoor Mapping

Calling google Maps API in android app

Step1 : Build in Flutter (Recommended for VS Code)

Flutter is **Google's own cross-platform framework**, and it integrates perfectly with **Google Maps APIs** and **AR (via ARCore plugins)**.

Requirements

Install:

- **VS Code**

- **Flutter SDK**

- **Android SDK** (through Android Studio or command line)

- **Dart extension** for VS Code

Step 2 : Add Google Maps Flutter Plugin

Open pubspec.yaml and add:

```
dependencies:
    flutter:
    sdk: flutter
    google_maps_flutter: ^2.6.1
    geolocator: ^12.0.0

Then run:
    flutter pub get
```

Step 3 : Get a Google Maps API Key

Go to Google Cloud Console:
- Enable **Maps SDK for Android**
- Create an **API key**
Add it in your app's manifest (next step).

Step 4 :   Configure the Android Manifest

Open:
    android/app/src/main/AndroidManifest.xml
Add inside <application>:
    <meta-data
        android:name="com.google.android.geo.API_KEY"
        android:value="YOUR_API_KEY_HERE" />
Also make sure you have permissions:
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
    <uses-permission android:name="android.permission.INTERNET"/>

Step5   :   Import these files when adding Map APIs

import 'package:flutter/material.dart';
import 'package:google_maps_flutter/google_maps_flutter.dart';

Step 6 :   Run the App

Connect your Android phone → run:
    flutter run
You'll see your **Google Map** appear inside your Flutter app.