

G Cloud 15 - Google Maps Service Definition

Google Maps Platform is an online web and mobile mapping service. Google Maps are used by businesses to pinpoint and search for locations. Google Maps are used to provide routing, distances and directions. Google Maps provide Google Places data and geocoding capability. Google Maps provides Environmental APIs.

The Google Maps web services are a collection of APIs, providing geographic data for your maps applications. This guide serves only to define the main web services with a definition for each API service located below. For more information contact Geo.me.

MAPS

- Maps JavaScript API
- Maps SDK for Android
- Maps SDK for iOS
- Navigation SDK
- Map Tiles API
- Datasets API
- Elevation API

ROUTES

- Routes API
- Roads API
- Directions API
- Distance Matrix API

PLACES

- Places API
- Geocoding API
- Geolocation API
- Time Zone API

ENVIRONMENT

- Air Quality API
 - Pollen API
 - Solar API
-

MAPS

Maps JavaScript API

Customise maps with your own content and imagery for display on web pages and mobile devices. The Maps JavaScript API features four basic map types (roadmap, satellite, hybrid, and terrain) which you can modify using layers and styles, controls and events, and various services and libraries.

Maps SDK for Android

With the Maps SDK for Android, add maps to your Android app using Google Maps data, map displays, and map gesture responses. You can also provide additional information for map locations and support user interaction by adding markers, polygons, and overlays to your map.

Maps SDK for iOS

With the Maps SDK for iOS, you can add maps based on Google Maps data to your application. The SDK automatically handles access to the Google Maps servers, map display,

and response to user gestures such as clicks and drags. You can also add markers, polylines, ground overlays and info windows to your map. These objects provide additional information for map locations, and allow user interaction with the map.

Navigation SDK

The Navigation SDK provides turn-by-turn navigation experiences within Android and iOS applications. It offers real-time routing, voice guidance, and traffic-aware directions - enabling businesses to build custom navigation solutions for delivery, logistics, ride-sharing and field service applications.

Map Tiles API

The Map Tiles API provides direct access to Google's map tiles, enabling you to display Google Maps imagery in your own mapping applications. It supports 2D and photorealistic 3D tiles, allowing for integration with third-party rendering engines and custom visualisation tools.

Datasets API

The Datasets API allows you to upload, manage and style your own geospatial data for use with Google Maps Platform. You can visualise large datasets on maps without needing to manage complex infrastructure - ideal for displaying custom boundaries, locations or geographic information specific to your business.

Elevation API

The Elevation API provides elevation data for all locations on the surface of the earth, including depth locations on the ocean floor (which return negative values).

ROUTES

Routes API

The Routes API is a service that accepts an HTTPS request and returns either the ideal route between two locations, or distances and travel times for a matrix of routes between different origin and destination locations.

Roads API

The Roads API is a service that accepts HTTPS requests with latitude/longitude coordinates for one or more points on a map. It uses these points to find nearby road segments and returns a Place ID along with metadata such as the nearest road segment and speed limits.

Directions API

The Directions API is a service that calculates directions between locations. You can search for directions for several modes of transportation, including transit, driving, walking, or cycling.

Distance Matrix API

The Distance Matrix API is a service that provides travel distance and time for a matrix of origins and destinations, based on the recommended route between start and end points.

PLACES

Places API

The Places API acquires data from the same database used by Google Maps. Places features more than 100 million businesses and points of interest that are updated frequently through owner-verified listings and user-moderated contributions. It returns formatted location data and imagery about establishments, geographic locations, or prominent points of interest.

- **Place Search** - Return a list of places based on a user's location or search string.
- **Place Details** - Return detailed information about a specific place, including user reviews.
- **Add Places** - Supplement data in Google's Places database with data from your application.

Geocoding API

The Geocoding API is a service that provides geocoding and reverse geocoding of addresses.

- **Geocoding** is the process of converting addresses (like a street address) into geographic coordinates (like latitude and longitude), which you can use to place markers on a map, or position the map.
- **Reverse geocoding** is the process of converting geographic coordinates into a human-readable address. The Geocoding API's reverse geocoding service also lets you find the address for a given place ID.

Geolocation API

The Geolocation API returns a location and accuracy radius based on information about cell towers and WiFi nodes that a mobile client can detect.

Time Zone API

The Time Zone API provides time offset data for locations on the surface of the earth. You request the time zone information for a specific latitude/longitude pair and date. The API returns the name of that time zone, the time offset and the daylight savings offset.

ENVIRONMENT

Air Quality API

The Air Quality API lets you request air quality data for a specific location, including over 70 air quality indexes (AQIs), pollutants, and health recommendations. It covers over 100 countries with a resolution of 500 x 500 metres.

Pollen API

The Pollen API lets you request pollen data for a specific location. Pollen data includes regional plant species and pollen types, as well as pollen index and health recommendations. The Pollen API covers over 65 countries with a resolution of 1 x 1 kilometre.

Solar API

The Solar API is a service focused on helping accelerate solar and energy system installations. The Solar API makes detailed rooftop data based on Google's expansive mapping and computing resources available to help estimate renewable rooftop solar energy potential and savings.

For more information about any of these APIs contact [Geo.me](https://geo.me)



Google Cloud
Partner

