



Google Maps ¿Where do you start?

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Date

What do you want to do?

- ❖ Plan a route
- ❖ Visualize features and arbitrary data on a map
- ❖ Visualize the intensity of data about population density, temperature, traffic congestion
- ❖ Visualize JSON / KML data on a map
- ❖ Draw polygons, rectangles, polylines, circles, markers, and info windows on a map

What do you want to do?

- ❖ Add an image to a map, as a overlay at a specified location
- ❖ Add stand-alone Street View panoramas
- ❖ Customize the look a map
- ❖ Show public transport routes on a map
- ❖ Get directions from origin to destination location

Which API do I need?



The API picker lists the most common things you may want to do on a map or with location-based data, and suggests the API that most suits your needs. For details about each API, follow the links to the related documentation.

 Type your keyword here to find the right API

What do you want to do?	Useful APIs:
Add a map to an Android mobile app. Decide whether you want to support map gestures for tilt, rotate, zoom and scroll. Have full control over the 3D camera with interactive tilt, bearing, zoom and pan.	Google Maps Android API v2
Add a map to an iOS mobile app. Decide whether you want to support map gestures for tilt, rotate, zoom and scroll. Have full control over the 3D camera with interactive tilt, bearing, zoom and pan.	Google Maps SDK for iOS
Retrieve an interactive map for display on a web	Google Maps Embed API (a web service)

API access

- ❖ All Maps API applications should load the Maps API using an API key. Using an API key enables you to monitor your application's Maps API usage, and ensures that Google can contact you about your application if necessary (Google Developers Doc).

- Overview
- Permissions
- APIs & auth
 - APIs
 - Credentials**
 - Consent screen
 - Push
- Monitoring
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 - Logs
 - Dashboards & alerts
- Source Code
- Deploy & Manage
- Compute
- Networking
- Storage
- Big Data
 - BigQuery ↗
 - Cloud Dataflow
 - Pub/Sub

OAuth

OAuth 2.0 allows users to share specific data with you (for example, contact lists) while keeping their usernames, passwords, and other information private.

[Learn more](#)[Create new Client ID](#)

Public API access

Use of this key does not require any user action or consent, does not grant access to any account information, and is not used for authorization.

[Learn more](#)[Create new Key](#)

No client IDs found.

API Access

Key for browser applications

API key	AlzaSyAGgZXM1elb5mQfAKZOjRHWd5ihJ90IFTY
Referrers	Any referrer allowed
Activation date	Oct 27, 2013, 5:59:00 AM
Activated by	lullyfe89@gmail.com (you)

[Edit allowed referrers](#)[Regenerate key](#)[Delete](#)

My First App

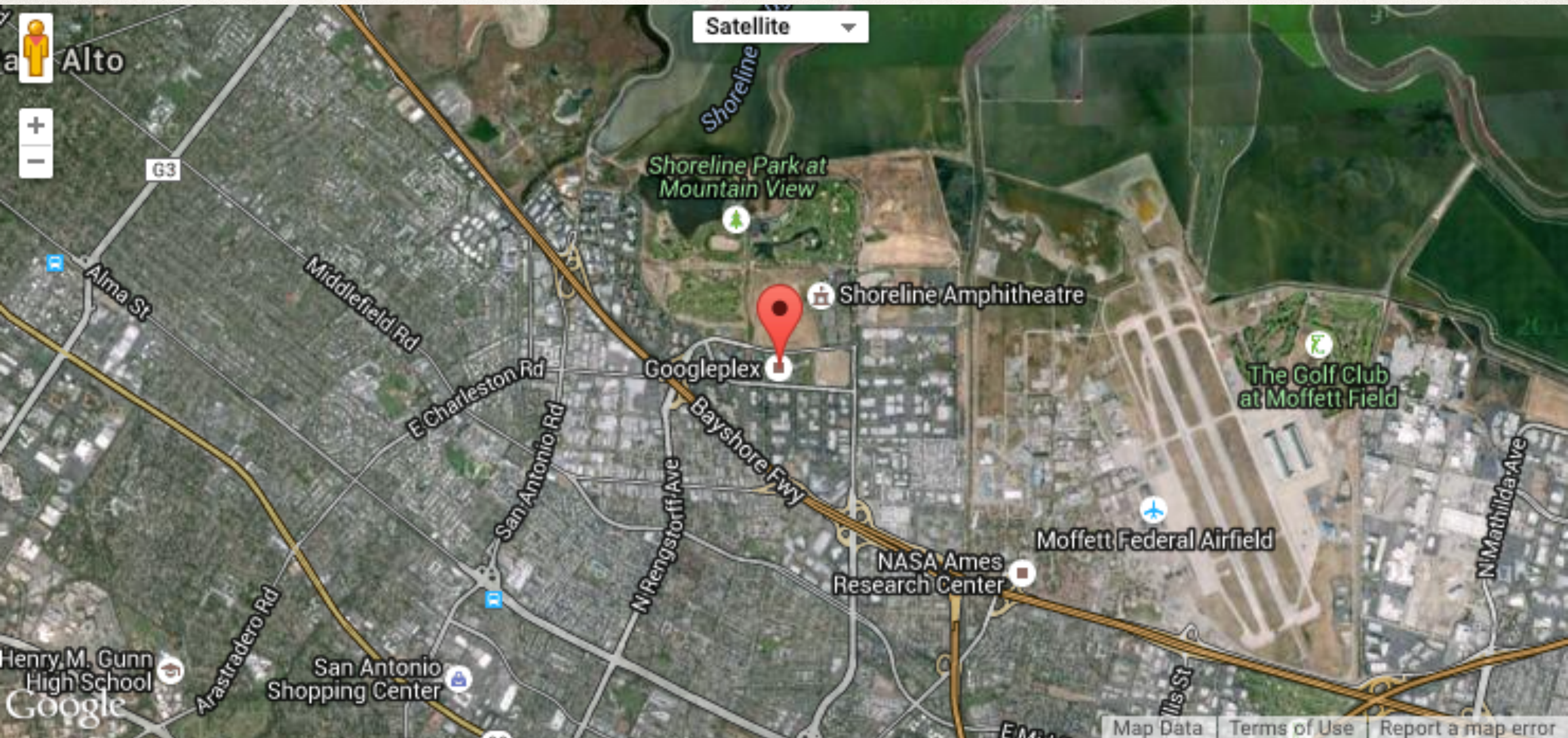
- ❖ We declare the application as HTML5 using the `<!DOCTYPE html>` declaration.
- ❖ We include the Maps API Javascript using a `script` tag
- ❖ We create a `div` element named “map-canvas” to hold the map
- ❖ We create a Javascript object literal to hold a number of map properties
- ❖ We create a Javascript “map” object, passing it the `div` element and the map properties
- ❖ We use an event listener to load the map after the page has loaded


```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <style type="text/css">
5       html, body, #map-canvas { height: 100%; margin: 0; padding: 0;}
6     </style>
7     <script type="text/javascript"
8       src="https://maps.googleapis.com/maps/api/js?key=AIzaSyA6gZ3811t65mQ1kK7gJmnd51h350217Y">
9     </script>
10    <script type="text/javascript">
11      function initialize() {
12        var mapOptions = {
13          center: { lat: 4.5833, lng: -74.0667},
14          zoom: 5
15        };
16
17        var map = new google.maps.Map(document.getElementById('map-canvas'),
18          mapOptions);
19
20        google.maps.event.addDomListener(window, 'load', initialize);
21      </script>
22    </head>
23    <body>
24      <div id="map-canvas"></div>
25    </body>
26  </html>
```

1. Cross-browser compliant
2. Incluimos el api de javascript
3. Incluimos la clave de navegador
4. Creamos las propiedades del mapa
5. Creamos el mapa
6. Creamos un contenedor donde vizualizar el mapa
7. Creamos un receptor de eventos

Google Map Types

- ❖ MapTypeId.ROADMAP
- ❖ MapTypeId.SATELLITE
- ❖ MapTypeId.HYBRID
- ❖ MapTypeId.TERRAIN



45 Perspective



Geocoding

- ❖ Geocoding is the process of converting addresses (*like* “Calle 32A # 69 C2”) into geographic coordinates (*like* latitude: 6.234921 y longitude: -75.591309), which you can use to place markers on a map, or position the map

Best Practices

- ❖ All Google Maps APIs is available over HTTPS, using HTTPS whenever possible
- ❖ Whenever possible, pre-geocode known addresses and store your results in a temporary cache of your own design