



Angular 8/7 | Add Google Maps With Location Search In Angular 2 Plus Applications Using Angular Google Maps Module (@Agm/Core) Easily

🕒 Last updated on February 16, 2020 👤 Jolly.Exe

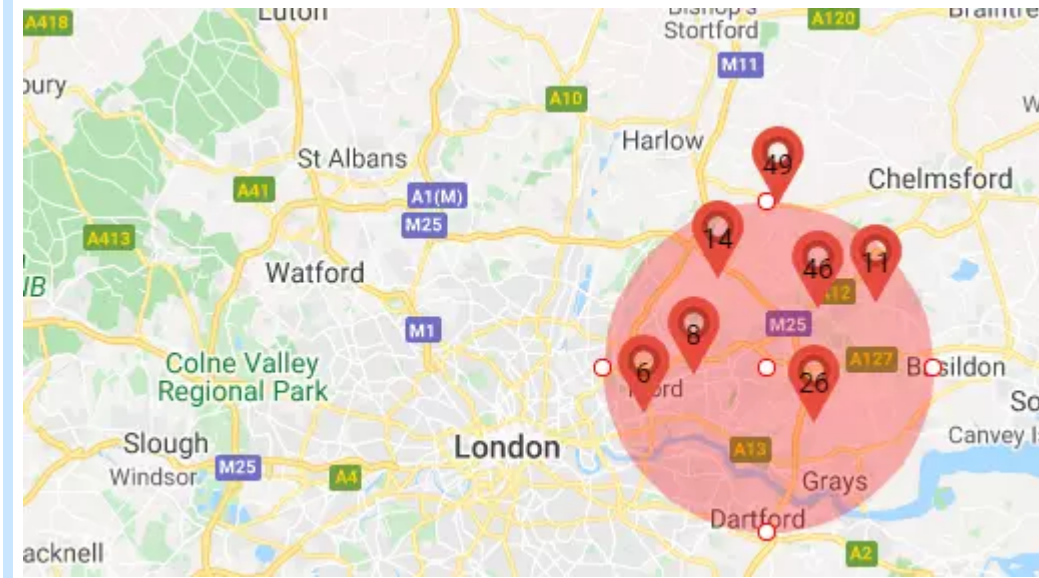
Supported from Angular 2 to latest version 8

Google maps are used in many applications as a location with visible maps plays an important role to make information more user-friendly. Embedded Maps can display markers of location or enable visual selection of address or show geographical location reviews etc.

In this post, we will add **Google Maps in an Angular project** using Angular Google Maps module. Adding/ Embedding Google Maps in an Angular project becomes very easy by using this module. Here we will explain step by step tutorial to make it even more easy with a new sample Angular project using latest CLI current version **7.3.8**

Let's get mapped 😊

Check: Angular Google Maps With Radius Circle And Markers



Check working demo [here](#)

Create a new Angular project. You can update Angular CLI by running following npm command

```
$ npm install -g @angular/cli
```

```
$ ng new AngularGoogleMaps
```

```
$ cd AngularGoogleMaps
```

Install Angular Google Maps

Run following NPM command to install AGM in project

```
$ npm install @agm/core --save
```

Next, open **app.module.ts** then import **AgmCoreModule** then add in imports array

```
import { BrowserModule } from '@angular/platform-browser';
import { NgModule } from '@angular/core';

import { AppComponent } from './app.component';

import { AgmCoreModule } from '@agm/core';

@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule,
    AgmCoreModule.forRoot({
      apiKey: 'AIzaSyAzSnXXXXXXXXXXXXXXXXXSZGGWU',
      libraries: ['places']
    })
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

Note: Replace apiKey with your API key. Check here on [How to get Google API key?](#)

Add AGM template in App component to show basic Google Map with the current location. To get current coordinates like **Longitude & Latitude**, we will use **geolocation service** in the navigator.

```
<!-- app.component.html -->
<agm-map
```

```
[latitude]="latitude"
[longitude]="longitude"
[zoom]="zoom" >
  <agm-marker
    [latitude]="latitude"
    [longitude]="longitude"></agm-marker>
</agm-map>
```

Here we will call **setCurrentLocation()** method to set AGM with Latitude & Longitude.

[zoom] property can be used to zoom up to any level.

```
//app.component.ts
```

```
import { Component, OnInit } from '@angular/core';
@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent implements OnInit {
  title: string = 'AGM project';
  latitude: number;
  longitude: number;
  zoom: number;

  ngOnInit() {
    this.setCurrentLocation();
  }

  // Get Current Location Coordinates
  private setCurrentLocation() {
    if ('geolocation' in navigator) {
      navigator.geolocation.getCurrentPosition((position) => {
        this.latitude = position.coords.latitude;
        this.longitude = position.coords.longitude;
        this.zoom = 15;
      });
    }
  }
}
```

```
    });  
  }  
}
```

Add Map height in **app.component.css**

```
agm-map {  
  height: 300px;  
}
```

Note: Map height is required. Without it, the map will not be visible with 0 height.

That's it now you have a basic Google Map working in Angular application. Next, we will add a search bar to search for locations from Google API. Then a Draggable Marker to get current location address.

Add Location/ Places Search Bar

Next, we will install **GoogleMaps** types library

```
$ npm install @types/googlemaps --save-dev
```

Next, open file **tsconfig.app.json** already available at the root, now add *"googlemaps"* in types array as shown below

```
{
```

```
"extends": "../tsconfig.json",
"compilerOptions": {
  "outDir": "../out-tsc/app",
  "types": [
    "googlemaps"
  ],
},
"exclude": [
  "test.ts",
  "**/*.spec.ts"
]
}
```

Make Sure You Have Enabled Three Types Of API's Services On Your Key.

Maps JavaScript API (Show Map), **Places API** (Places search results) & **Geocoding API** (Convert Lat & Long to address)

In **app.component.html** we will now add a search bar with address and Latitude & Longitude information.

The marker is now draggable so that user can drag it to the desired location.

[markerDraggable] option is set to true.

(dragEnd) the event will fire to get the address of current drop.

```
<!-- app.component.html -->
<div class="container">
```

```
<h1>Angular Google Maps with Places Search Example</h1>
```

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```

<div class="form-group">
  <label>Enter address</label>
  <input type="text" class="form-control" (keydown.enter)="$event" />
</div>

<agm-map [latitude]="latitude" [longitude]="longitude" [zoom]="zoom">
  <agm-marker [latitude]="latitude" [longitude]="longitude" [map]="map"
    (dragEnd)="markerDragEnd($event)"></agm-marker>
</agm-map>

<h5>Address: {{address}}</h5>
<div>Latitude: {{latitude}}</div>
<div>Longitude: {{longitude}}</div>
</div>

```

In **app.component.ts** we will add Google map **Autocomplete** method to return address data set. **Geocoder** location service will return address based on provided Latitude & Longitude in the method **getAddress()**

```
//app.component.ts
```

```
import { Component, OnInit, ViewChild, ElementRef, NgZone } from '@angular/core';
import { MapsAPILoader, MouseEvent } from '@agm/core';
```

```

@Component({
  selector: 'app-root',
  templateUrl: './app.component.html',
  styleUrls: ['./app.component.css']
})
export class AppComponent implements OnInit {
  title: string = 'AGM project';
  latitude: number;
  longitude: number;
  zoom: number;
  address: string;
  private geoCoder;

  @ViewChild('search')

```

```
public searchElementRef: ElementRef;

constructor(
  private mapsAPILoader: MapsAPILoader,
  private ngZone: NgZone
) { }

ngOnInit() {
  //load Places Autocomplete
  this.mapsAPILoader.load().then(() => {
    this.setCurrentLocation();
    this.geoCoder = new google.maps.Geocoder;

    let autocomplete = new google.maps.places.Autocomplete(this,
      types: ["address"]
    });
    autocomplete.addListener("place_changed", () => {
      this.ngZone.run(() => {
        //get the place result
        let place: google.maps.places.PlaceResult = autocomplete

        //verify result
        if (place.geometry === undefined || place.geometry ===
          return;
        }

        //set latitude, longitude and zoom
        this.latitude = place.geometry.location.lat();
        this.longitude = place.geometry.location.lng();
        this.zoom = 12;
      });
    });
  });
}

// Get Current Location Coordinates
private setCurrentLocation() {
  if ('geolocation' in navigator) {
    navigator.geolocation.getCurrentPosition((position) => {
      this.latitude = position.coords.latitude;
      this.longitude = position.coords.longitude;
      this.zoom = 8;
    });
  }
}
```



```
        this.getAddress(this.latitude, this.longitude);
    });
}
}

markerDragEnd($event: MouseEvent) {
    console.log($event);
    this.latitude = $event.coords.lat;
    this.longitude = $event.coords.lng;
    this.getAddress(this.latitude, this.longitude);
}

getAddress(latitude, longitude) {
    this.geocoder.geocode({ 'location': { lat: latitude, lng: longitude } });
    console.log(results);
    console.log(status);
    if (status === 'OK') {
        if (results[0]) {
            this.zoom = 12;
            this.address = results[0].formatted_address;
        } else {
            window.alert('No results found');
        }
    } else {
        window.alert('Geocoder failed due to: ' + status);
    }
}

});
}
}
```

For making it look beautiful we have added bootstrap.css in **index.html**

```
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">
```

Check working demo [here](#)

That's it! Run application \$ ng serve --open to see a Google Map with Search Bar to search places. The marker can be dragged anywhere to get location address with coordinates.

Also Check

- [Ionic 4/5 Angular Google Maps with Places Search using @agm](#)
- [Angular Google Maps in Modal | Autocomplete & Select Location,...](#)
- [Show markers in draggable Radius on Angular Google Maps](#)
- [Ionic 4 | Add Google Maps JavaScript API, Geolocation and Geoco...](#)
- [Ionic 5 Geolocation Native Plugin Tutorial](#)
- [Ionic 3/4 | Adding Google Maps SDK Cordova Plugin in Ionic 4 Ap...](#)
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Farhan



Guest

my search bar is not functioning, help

^ 0 v

Reply

🕒 11 months ago ▲



Jolly.exe



Author

Hi Farhan, if you are getting an error in response from Google API, then make sure your API KEY is allowed three types of authentications for Places API, Geocoder API, and Google JS Maps API in Google Developer console as mentioned in the article above.

^ -5 v

Reply

🕒 11 months ago



Ahmad Deedat



Guest

i solved it by add (language: 'en',
libraries: ['geometry', 'places']) at app.module:

```
@NgModule({
  declarations: [...],
  imports: [...],
  AgmCoreModule.forRoot({
    clientId: "",
    //apiVersion: 'xxx', // optional
    //channel: 'yyy', // optional
    //apiKey: 'zzz', // optional
    language: 'en',
    libraries: ['geometry', 'places']
  })
},
```

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```
providers: [...],  
bootstrap: [...]  
})
```

^ 0 v

[Reply](#)

🕒 11 months ago ↗

**kuldeep****Guest**

i couldn't resolve , which
you did involve

^ 0 v

[Reply](#)

🕒 8 months ago

**bboy****Guest**

I also did not work in search.

^ 0 v

[Reply](#)

🕒 6 months ago

**mohamed****Guest**

the search bar dont work and get err in ts can not find name google

^ 1 v

[🗨 Reply](#)

🕒 10 months ago ↗

**Jolly.exe****Author**

Hi Mohamed, there is some change in code, I have updated code in file **app.module.ts**.
Please check the updated post.
Thanks for pointing out 😊

^ -17 v

[Reply](#)

🕒 10 months ago ↗

**Katlego Thabe****Guest**

Hi Jolly,

What a beautiful tutorial, however I'm getting the same error "TypeError:
Cannot read property 'maps' of undefined". Please tell where I can find the

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updated code in the file app.module.ts.

^ 0 v [Reply](#)

🕒 7 months ago



Jhorkman



Guest

@Jolly.exe, you forgotten to install "@types/googlemaps": "^3.30.4", in dev-dependencies instead add types in tsconfig file

^ 0 v [Reply](#)

🕒 7 months ago



James



Guest

How to make the search bar give suggestion on places rather than addresses?

^ 0 v [Reply](#)

🕒 10 months ago



Hiimanshu Arora



Guest

Hey...I am getting error Uncaught (in promise): TypeError: Cannot read property 'nativeElement' of undefined. Help

^ 0 v [Reply](#)

🕒 8 months ago



carlos



Guest

please sir to the uber animation example give animate MARKER ON GOOGLE MAP WITH CURRENT LOCATION in Angular google Maps

^ 0 v [Reply](#)

🕒 8 months ago



william



Guest

tengo un horror aqui :
@ViewChild('search')

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public searchElementRef: ElementRef;

y me dice esto al ejecutar ng serve -open

ERROR in src/app/home/map/map.component.ts(18,4): error TS2554: Expected 2 arguments, but got 1.

^ 0 v

Reply

8 months ago



Jolly.exe



Author

Try using @ViewChild('search', {static: false})

^ 1 v

Reply

8 months ago



zé zé zé



Guest

um não, muitos...

^ 0 v

Reply

4 months ago



vinoth kumar



Guest

how to calculate distance between two latitude and longitude points in angular 6

^ 0 v

Reply

8 months ago



Jolly.exe



Author

Hi Vinoth, you need to use Haversine Formula which takes two sets of Latitude and Longitude coordinates to give the distance on a flat surface. Try [this](#)

^ 0 v

Reply

8 months ago



mahesh

Guest

will this work in ios

^ 0 v

[Reply](#)

🕒 8 months ago

Jayden



Guest

Hi Jolly! I'm using this in ionic, and I get an error – cannot read property 'Autocomplete' of undefined.

^ 0 v

[Reply](#)

🕒 8 months ago

Johannes Winkler



Guest

Hey guys,
does anyone else had the problem of "core.js:7187 ERROR Error: Uncaught (in promise): TypeError: Cannot read property 'maps' of undefined"?
Currently I get this error and I have absolutely no Idea why.
The error is located in this line: `this.geoCoder = new google.maps.Geocoder;`
Is there a possibility to download the project?
Thank you in advance and all the best,
Johannes

^ 0 v

[Reply](#)

🕒 8 months ago

thedarkstrix



Guest

declare geoCoders in @Component
`geoCoder:any;`

^ 0 v

[Reply](#)

🕒 6 months ago


Lucas



Guest

google variable its not defined nowhere, thats the problem, why?

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 0  [Reply](#) 4 months ago

Guest

Gurmukh



Thanks, working great with Ionic 4

 0  [Reply](#) 7 months ago

Guest

Deependra



Hello,
markerDraggable not working. Please help.

Code-

 0  [Reply](#) 7 months ago

Guest

bboy



ERROR TypeError: Cannot read property 'nativeElement' of undefined
at BrowseSuppliersComponent.map


 0  [Reply](#) 6 months ago

Guest

Andrei



Great tutorial Jolly! Currently the address only changes based on the marker position on the map. How do you make the address change based on what's been typed in the search box? Any help much appreciated.

 1  [Reply](#) 6 months ago



Guest

Irfan Sabir .component.ts(32,27): error TS2304: Cannot find name 'google'.



.component.ts(34,30): error TS2304: Cannot find name 'google'.

.component.ts(40,22): error TS2503: Cannot find namespace 'google'.

^ 0 v

[Reply](#)

🕒 6 months ago



Irfan Sabir



Guest

Angular CLI: 7.3.9

Node: 8.12.0

OS: win32 x64

Angular: 7.0.3

^ 0 v

[Reply](#)

🕒 6 months ago



Mario



Guest

npm install @types/google-maps --save

```
import { google } from "google-maps";
```

```
declare var google : google;
```

```
@Component({  
  selector: 'app-store-add',  
  templateUrl: './store-add.component.html'  
})
```

^ 0 v

[Reply](#)

🕒 2 months ago



Guest

David Kihato



Hi. Great tutorial. Interesting enough everything is working including dragging marker but my search does not provide a drop down list of suggestions

^ 0 v

[Reply](#)

🕒 5 months ago

**David Kihato**

Guest

Actually I've noticed it's not working since I am placing it on a modal. How can one make it work in a modal?

^ -1 v

Reply

🕒 4 months ago

**David Kihato**

Guest

So I discovered the problem. Google autocomplete has a class .pac-container that has a z-index of 1000 whereas bootstrap modal has a z-index of 1050. To sort this out just set the following in your style.css

```
.pac-container {  
  z-index: 1052 !important; // Must be higher than z-index of bootstrap modal  
}
```

or you could check for the event of shown.bs.modal and set the z-index of .pac-container as follows

```
$('#your-modal').on('shown.bs.modal', () => {  
  $('.pac-container').css('z-index', 1055);  
});
```

^ 0 v

Reply

🕒 4 months ago

**zé zé zé**

Guest

ERROR Error: "Uncaught (in promise): TypeError: _this.searchElementRef is undefined"

^ 0 v

🗨 Reply

🕒 4 months ago

**zé zé zé**

Guest

error TS2304: Cannot find name 'google'

^ 0 v

🗨 Reply

🕒 4 months ago

**Raj**

Guest

not showing all locations

^ 2 v

[Reply](#)

🕒 4 months ago



kuldeep singh



Guest

Search bar is also not working, can anyone help me

^ 0 v

[Reply](#)

🕒 2 months ago



Diego Arredondo



Member

Hi! Works pretty well. Is there any way we can force the suggestions to be relatively close to the location?

^ 0 v

[Reply](#)

🕒 2 months ago



How to fix type error in Angular Google Maps? - TCup



[...] <https://www.freakyjolly.com/angular-7-6-add-google-maps-in-angular-2-plus-applications-using-angular…>; [...]

^ 0 v

[Reply](#)

🕒 1 month ago



Erick



Guest

Why do I get this problem:

./node_modules/@agm/core/fesm5/agm-core.js 4538:120-128

"export 'ɵɵinject' was not found in '@angular/core' ??

^ 0 v

[Reply](#)

🕒 1 month ago



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