# Demo: Using Geolocation API in web apps.

Skills Network

**Effort:** 20 minutes

You have learnt a lot about web development by now. Time for some action.

## Learning Objectives

1. Understand what Geolocation API is.
2. Identify how Geolocation API identifies the current location.
3. Find your current location.
4. See your current location on the map.
5. Figure out how far the Statue of Liberty is from your current location.

## What is Geolocation API?

Most smartphones today have a GPS (Global Positioning System) receiver built-in. Using the GPS, they can tell your exact location. Needless to say, a GPS is a useful feature. Imagine the advantages a web page has if it can identify a user's current location without any sophisticated hardware.

HTML5 has many cool APIs (Application Programming Interface). One of them is Geolocation. Using this API, a web developer can find the location of a user by writing just a few lines of code. Before the days of this API, finding their location was a difficult task.

If a web browser can find out someone's current location, it would be of great utility in many scenarios. For example, when you order food online, the food delivery company expects you to type in your address. If your browser can identify your current location, you can automatically find and select your current location.

## Using Geolocation API

Using an API makes it easy to use its functionalities, while not requiring a lot of work on your end. For the Geolocation API, all you need to do is call its methods as needed. For example, if we want to get the current position of a user, we can do:

```
1
```

```
navigator.geolocation.getCurrentPosition(displayPosition)
```

Copied!

The Geolocation API aldo has other available functionalities, such as tracking a user's location every time he/she moves, and can be found on the official documentation. As a web developer, it will be important to know how to use APIs in order to write more efficient code, and to make your job easier.

## How Geolocation API identifies the current location.

The Geolocation API uses variety of sources to find out your current location. Usually Geolocation API will try to determine the position using one of these methods.

**GPS (Global Positioning System)** If your device has any GPS capabilities, the current position is identified using the satellite signal.

**Mobile Network Location**
If you are browsing the internet using a mobile phone or a wireless modem, your location is tracked using the location of the nearest cell phone towers.

**WiFi Positioning System**
If you are using a WiFi, then the Wi-Fi positioning system is used.

**IP Address Location** If none of the above is a possibility, location is detected based on the nearest Public IP Address. The accuracy of IP based location may not be very accurate. It can be used to identify the city, region or country.

## Find your current location

Let us see the Geolocation API in action. When you click on the link below, it will take you to a web page that has implemented Geolocation API. All you need to do is to click a button. The API will get into action and find your location in less than a second.

Depending on your browser and settings, the browser may ask you for permission to **know your location**, make sure you click "Allow" or "Yes".

<button style = "background-color:lightblue;margin:5px;border-radius:5px;padding:5px;">Find your location </button>

## See your current location on a map

Latitude and longitude information are just numbers for most people. A better way to handle this information is to use it to display your location on a map. A lot of services like Google Maps and Bing Maps do the same. You can see that this demo uses Google maps.

## How far is the Statue of Liberty?

Using your current location, we can find out how far you are from the Statue of Liberty. Can't believe it? See it for yourself.

<button style = "background-color:lightblue;margin:5px;border-radius:5px;padding:5px;">Find out how far the Statue of Liberty is</button>

## Author(s)

**Ramesh Sannareddy**

### Other Contributor(s)

**Rav Ahuja**

**Michelle Saltoun**

## Changelog

| Date | Version | Changed by | Change Description |
|---|---|---|---|
| 2020-08-24 | 1.0 | Ramesh Sannareddy | Initial version created |
| 2022-07-18 | 1.1 | Michelle Saltoun | Text updated |