



HTML5

Geolocation API

Fundamentals

Week 1 – Full-Stack DPP Course



Welcome

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Part 1 Outline

- The HTML5 Geolocation API
- What is a location?
- Getting the location
- HTML5 navigator Object
- Understanding the code
- Google Maps
- Inserting maps to our website



Part 1 Learning Objectives

- Learners would have a good understanding of:
 - What is HTML5 Geolocation
 - Latitude and longitude
 - What is a location
 - How to get the location
 - Methods to determine your location
 - The core HTML5 Geolocation code syntax
 - How to integrate Google maps into a website



Geolocation

- Allows browser to retrieve geographic location of the user.

- **Latitude**
- **Longitude**
- **Height**
- **Speed**

HIGHLY ACCURATE

- Useful for
 - **Weather sites**
 - **Map sites**
 - **Traffic information**



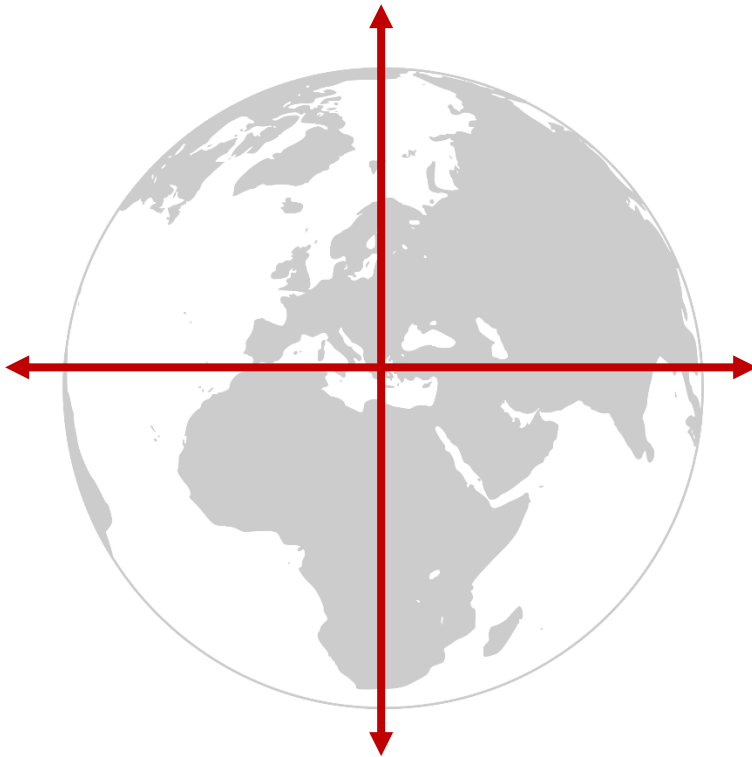
Security Warning

- User gets warning about location tracking.
 - Name of tracking site is displayed
 - Can't be bypassed
- User remains in control
 - The user can accept or deny access to location
 - User also have the power to decide, if the access to location is permanent or only once.



HTML5 Geolocation API

■ What is a location?



A LOCATION CONSISTS OF TWO PARTS:

A latitude: a distance north or south of the equator.

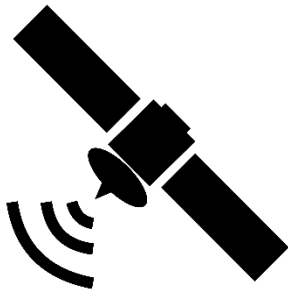
A longitude: a distance east or west of Greenwich, England.

When working with them using Geolocation we use the DECIMAL VERSION, e.g. 27.64, -192.65



HTML5 Geolocation API

■ Getting your location?



GPS –Uses
satellites



IP Address –
Uses the
browser



Wi-Fi–
Access points



**cell phone
triangulation**
– Cell towers

When you use Geolocation API to get a location the browser uses one of the 4 different methods to determined your location, also depending on the type of connection you have and the technology available on the device you are using.



HTML5 Geolocation API

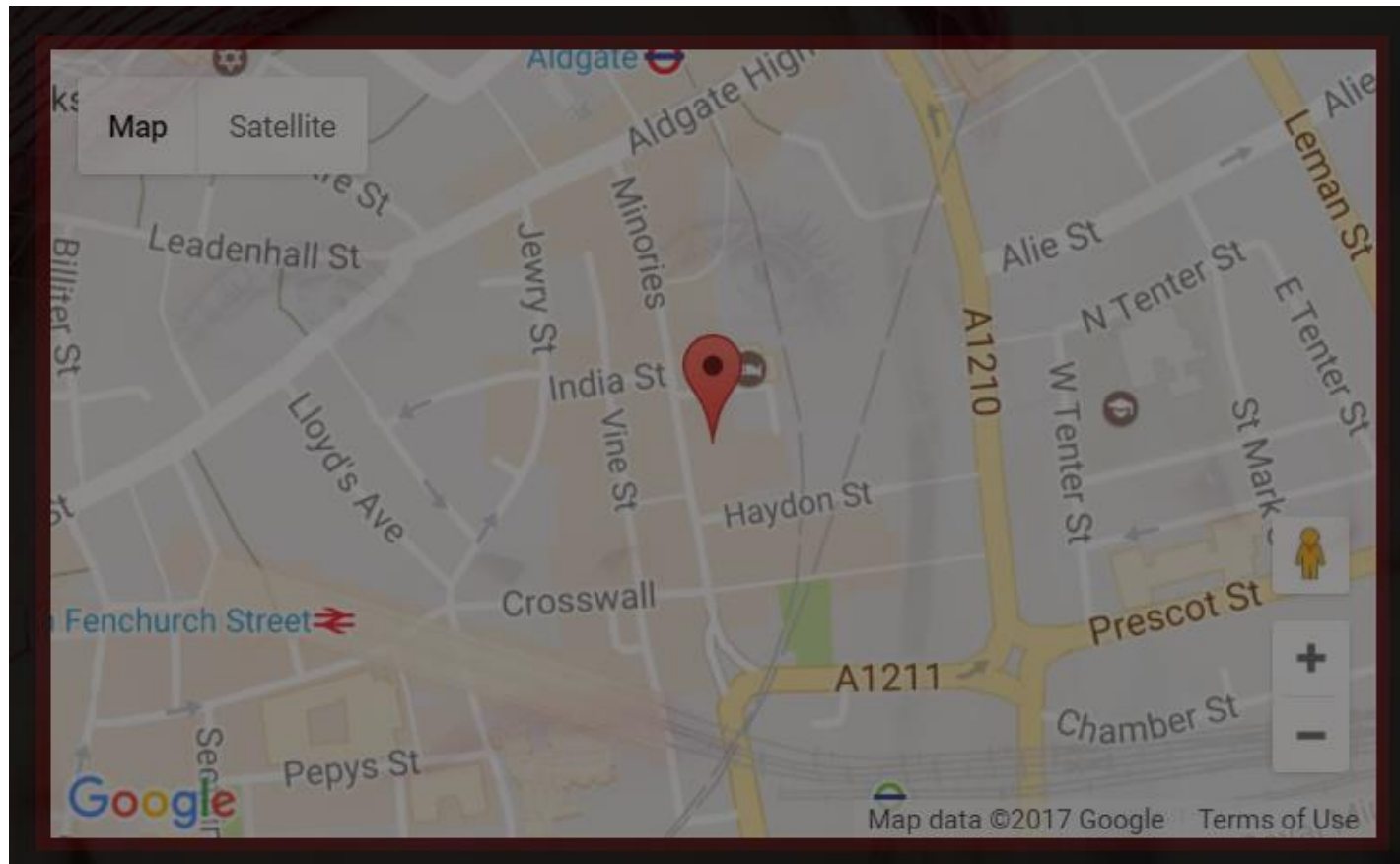
■ Using a Simple Example

```
■ function displayLocation(position) {  
■     var latitude = position.coords.latitude;  
■     var longitude = position.coords.longitude;  
■  
■     var pLocation = document.getElementById("location");  
■     pLocation.innerHTML += latitude + ", " + longitude + "<br>";  
■ }  
■  
■ window.onload = function() {  
■     if(navigator.geolocation) {  
■         navigator.geolocation.getCurrentPosition(displayLocation);  
■     } else {  
■         alert("Sorry, this browser doesn't support Geolocation!");  
■     }  
■ }
```



HTML5 Geolocation API

Adding Google Map into our website



Resources

- Sample code from the case study
- Use the links below to view Geolocation examples, sample code and video tutorial.

[w3schools](#)

[Geolocation MDN](#)

[Google Maps](#)

[Pluralsight Tutorial](#)



Download Files

Login into your VLE, look for HTML5 and CSS3 folder.
Inside the folder click on HTML5 Geolocation API.

or

Access my GitHub account and download the
HTML5 Geolocation API folder.

GitHub Account

