## FREE eBook

# LEARNING leaflet

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## **Chapter 1: Getting started with leaflet**

#### Remarks

Leaflet

Leaflet is an open-source JavaScript library for creating interactive maps.

### Versions

Version	Release Date
1.0.3	2017-01-23
1.0.2	2016-11-21
1.0.1	2016-09-30
1.0	2016-09-27
0.7	2013-11-18
0.6	2013-06-26
0.5	2013-01-17
0.4	2012-07-30
0.3	2012-02-13
0.2	2011-06-17
0.1	2011-05-16

## Examples

Implementing Leaflet.js with HTML and JavaScript

To use Leaflet, load its stylesheet and JavaScript file to your page:

```
<link rel="stylesheet" href="/css/leaflet.css" /> <script src="/js/leaflet.js"></script>
```

These resources can be downloaded from a variety of locations such as Leaflet's homepage or the Leaflet Github repository, or you can directly use CDN as,

```
<link rel="stylesheet" href="https://unpkg.com/leaflet@1.0.3/dist/leaflet.css" />
<script src="https://unpkg.com/leaflet@1.0.3/dist/leaflet.js" ></script>
```

You need a container for your map. It is common for developers to use a div with an id of "map" for this. Make sure to give your map div a height as well or the map might not show up.

<div id="map" style="height: 200px;"></div>

Initializing the map is done by creating a map object using the Leaflet.map(mapContainerId) method. In the below example, a latitude and longitude are set as a default with a default zoom level of 13.

```
var map = L.map('map').setView([42.35, -71.08], 13);
```

This creates our empty map, we should now provide a tile layer to act as our base map. A tilelayer is a service that provides map images in tiles, small images that are accessed by x, y and z parameters in a particular order (see below).

A tile layer URL might look like this, where  $\{s\}$ ,  $\{z\}$ ,  $\{x\}$  and  $\{y\}$  are placeholders that Leaflet will automatically change during operation:

```
"http://{s}.domain.com/foo/{z}/{x}/{y}.png"
```

We can now add our tilelayer, along with attribution info and maximum possible zoom level, and add it to the map:

```
L.tileLayer('http://tiles.mapc.org/basemap/{z}/{x}/{y}.png',
{
    attribution: 'Tiles by <a href="http://mapc.org">MAPC</a>, Data by <a
href="http://mass.gov/mgis">MassGIS</a>',
maxZoom: 17,
minZoom: 5
}).addTo(map);
```

**Note:** Map initialization and loading the tile layer need to occur after the inclusion of <code>leaflet.js</code> and the map container <code>div</code> element.

**Leaflet Quick Start** 

```
<!DOCTYPE html>
<html>
<head>
    <title>My Leaflet Map</title>
    <link rel="stylesheet" href="//unpkg.com/leaflet@1.0.2/dist/leaflet.css" />
    <style type="text/css">
    #map {
```

```
height: 500px;
                             }
                   </style>
          </head>
         <body>
                   <div id="map"></div>
                   <script src="//unpkg.com/leaflet@1.0.2/dist/leaflet.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></scr
                   <script>
                           var map = L.map('map').setView([51.505, -0.09], 13);
                             L.tileLayer('http://{s}.tile.osm.org/{z}/{x}/{y}.png', {
                                              attribution: '© <a href="http://osm.org/copyright">OpenStreetMap</a>
contributors'
                           }).addTo(map);
                            L.marker([51.5, -0.09]).addTo(map)
                                                 .bindPopup('A pretty CSS3 popup.<br> Easily customizable.')
                                                  .openPopup();
                   </script>
         </body>
</html>
```

Read Getting started with leaflet online: https://riptutorial.com/leaflet/topic/2000/getting-startedwith-leaflet



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