

```
# Install Libraries  
  
!pip install geopandas  
!pip install folium  
!pip install ipyleaflet
```

 [Show hidden output](#)

```
# Import Libraries  
import geopandas as gpd  
import folium  
import ipyleaflet  
import matplotlib.pyplot as plt  
import pandas as pd  
import numpy as np  
import seaborn as sns
```



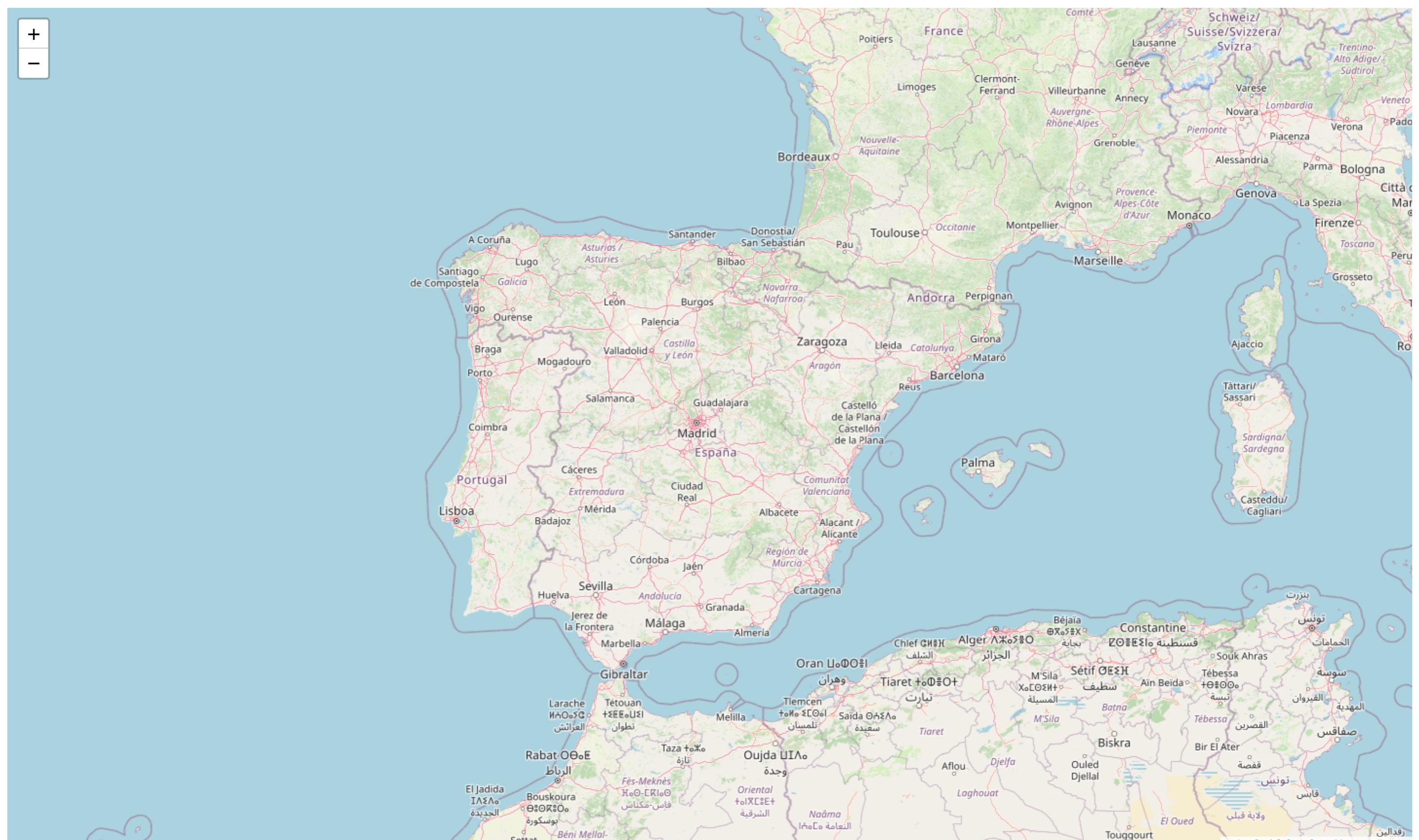
Map Using Folium

```
Map = folium.Map(location=[0, 0], zoom_start= 4)  
Map
```

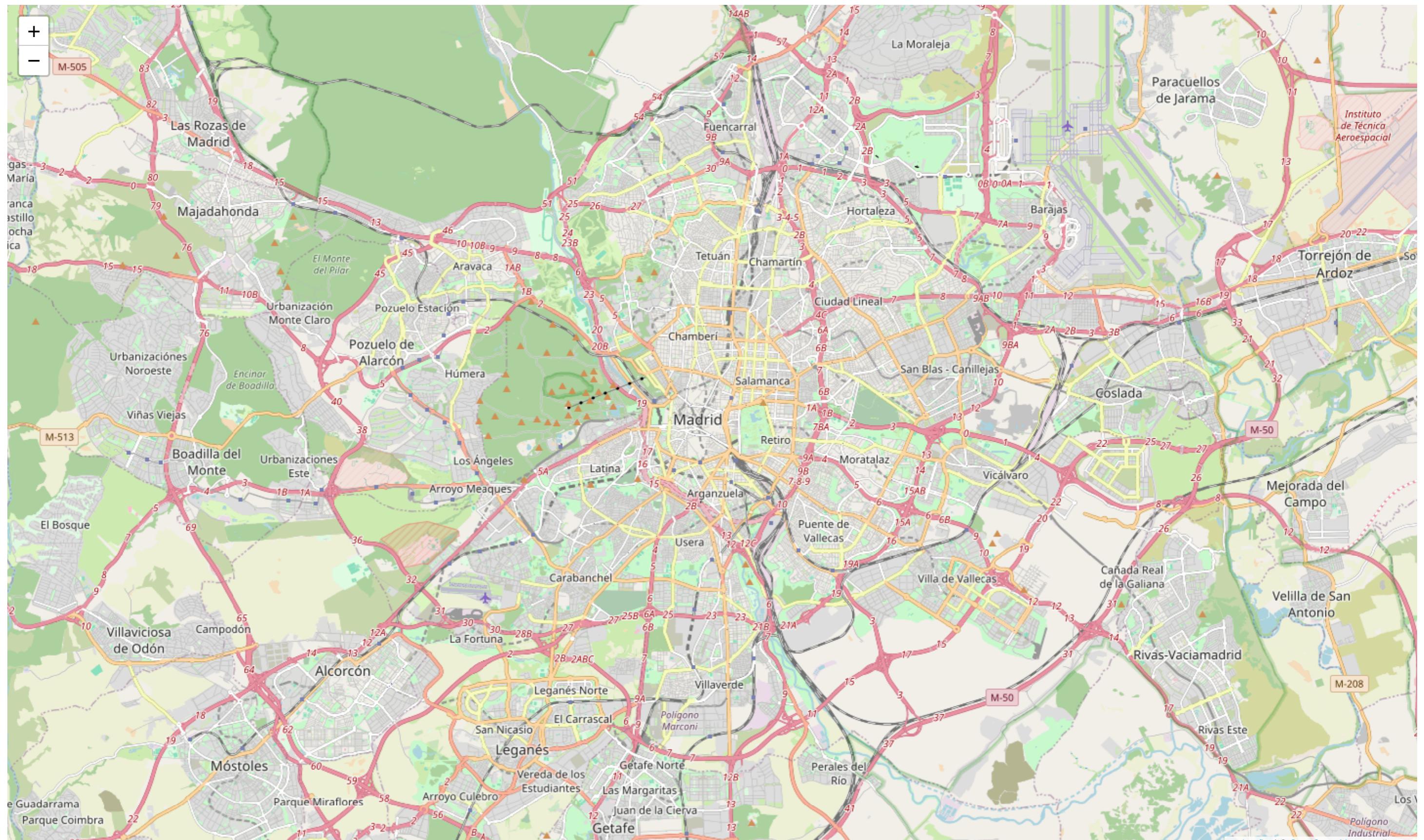


```
def create_map(location, zoom_start=10):
    map_object = folium.Map(location=location, zoom_start=zoom_start)
    return map_object

# Define Specific Location (Add '-' before Longitude)
spainMap = create_map(location=[40.4637, -3.7492], zoom_start=6)
spainMap
```



```
madridMap = create_map(location=[40.4168, -3.7038], zoom_start=12)  
madridMap
```

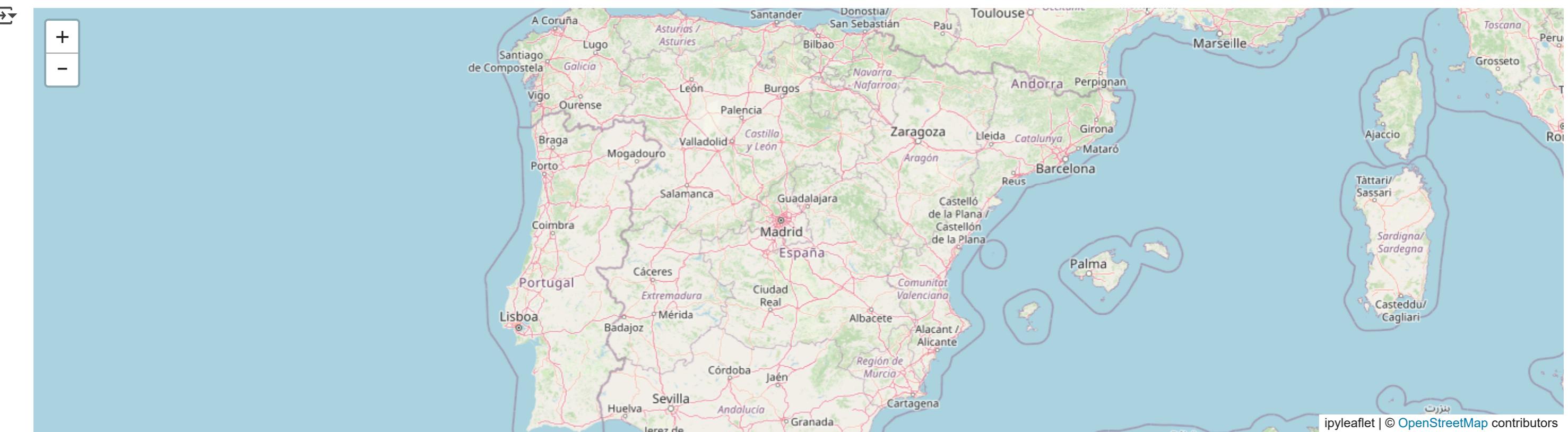


```
# Save Map to HTML File
spainMap.save("Spain_Map.html")
madridMap.save("Madrid_Map.html")
```

Map Using ipyleaflet

```
from ipyleaflet import Map, basemaps

Map = Map(center=(40.4168, -3.7038), zoom=6, basemap=basemaps.OpenStreetMap.Mapnik)
Map
```



Map Using TopoLayer

A "topolayer map," or topographic map, is a type of map that uses contour lines to represent the elevation and shape of the Earth's surface, allowing users to visualize three-dimensional terrain on a two-dimensional map.

```
from ipyleaflet import Map, TileLayer, basemaps
from ipyleaflet import Map, TileLayer, basemaps

Map = Map(center=(40.4168, -3.7038), zoom=5, basemap=basemaps.OpenStreetMap.Mapnik)
topoLayer = TileLayer(url='https://{s}.tile.opentopomap.org/{z}/{x}/{y}.png', name='OpenTopoMap', attribution = "Map Data: © <a href='https://opentopomap.org'>OpenTopoMap</a> contributors")
Map.add_layer(topoLayer)
Map
```



```
# Add Scale Control to The Map
from ipyleaflet import Map, ScaleControl

Map = Map(center=(40.4168, -3.7038), zoom=5, basemap=basemaps.OpenStreetMap.Mapnik)
Map.add_control(ScaleControl(position='bottomleft'))
Map
```

