

Web Cartography

Leaflet Basics





Goals

Learn to create **web maps** with Leaflet.

Learn to read and **understand** the docs.

</> Libraries

- ⦿ Third party
- ⦿ Make coding easier
- ⦿ Open-source?
- ⦿ Docs!

Leaflet

- <http://leafletjs.com>
- v1.2.0
- Extensible
- Lightweight
- Clean API
- Easy to understand
- Proj4 support
- No basemap included
- Raster, vector

</> L.*

- create a new empty web page
- link **assets** mentioned at <http://leafletjs.com/examples/quick-start/>
- create a **div#map** and set its width and height

L.Map

```
const map = L.map("divId").setView([lat, lon], zoom);
```

</> Raster: L.tileLayer

```
const url =  
“https://cartodb-basemaps-{s}.global.ssl.fastly.net/light_all/{z}/{x}/{y}.png”;  
const carto = L.tileLayer(url);  
map.addLayer(carto);
```

</> UI: L.marker

```
const center = L.marker(map.getCenter());  
center.bindPopup("I'm the center of your map");  
map.addLayer(center);
```

</> Vector: L.path

- L.Polyline
- L.Polygon
- L.Rectangle
- L.Circle
- L.CircleMarker

</> Vector: L.polyline

```
const line = L.polyline([[0, 0], [10, 10], [0, 10]]);  
map.addLayer(line);  
map.fitBounds(line.getBounds());
```

</> Other: L.layerGroup

```
const lg = L.layerGroup([center, line]);
```

```
map.removeLayer(center);
```

```
map.removeLayer(line);
```

```
map.addLayer(lg);
```

Controls: **L.control.layers**

```
const baseLayers = {  
  "Carto": carto  
};  
  
const overlays = {  
  "Vectors": lg  
};  
  
map.addControl(L.control.layers(baseLayers, overlays));
```

Exercise

- Set max and min zoom of the map
- Try to add a new WMS layer to the map
- Try to ask for user's location and center the map accordingly
- Try to change the polyline default style



Tips

Vladimir Agafonkin on GitHub <https://github.com/mourner>



Feel free to ask

anytime, anywhere, anyhow

zimmicz@gmail.com

357484@mail.muni.cz

@zimmicz