

DMIT2503 – Advanced Web Concepts

Google Maps JavaScript API V3 – Basic Map

API Key

To use your Google Maps API, you should first obtain an API Key from your Google account. As long as you stay within the limits, it is free.

For our purposes, we will try to utilize the API anonymously, but will have less performance than if we use individual API keys. If this becomes a problem for anyone, then please obtain an API key.

- Visit the APIs Console at <https://code.google.com/apis/console> and log in with your Google Account.
- Click the **Services** link from the left-hand menu, and then activate the **Google Maps API v3** service.
- Once the service has been activated, your API key is available from the **API Access** page, in the **Simple API Access** section.

Include the API

```
<script type="text/javascript"
src="http://maps.google.com/maps/api/js?sensor=false"></script>
```

Core Map Script:

```
<script type="text/javascript">
function initialize() {
var mapOptions = {
  center: new google.maps.LatLng(53.543564,-113.490452),
  mapTypeId: google.maps.MapTypeId.SATELLITE // ROADMAP, TERRAIN, SATELLITE, HYBRID
}; // end options
var map = new google.maps.Map(document.getElementById("map_canvas"), mapOptions);

} // end initialize
```

Calling the Function

In order to call this function when the page is loaded, we use the onload event handler added to the <body> tag.

```
<body onload="initialize()">
```

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Markup:

```
<div id="map_canvas"></div>
```

CSS:

Use CSS to layout your map size, placement, and alignment.

For our purposes, we'll use more of a desktop layout, but you may refer to Google Maps guide for their mobile suggestions (really simple 100% of viewport).

```
#map_canvas {  
    height: 480px;  
    width: 640px;  
    margin-left: auto;  
    margin-right: auto;  
}
```

Map Options:

Center:

To get latitude and longitude, go to maps.google.ca.

- Move map to your desired location.
- Right-click and select *What's Here*
- In the info box at the top left, you should see the latitude and longitude.

You can now use those coordinates for centering your map, plotting markers, drawing overlays, etc.
`center: new google.maps.LatLng(53.543564,-113.490452),`

Zoom:

Zoom: from 0 to ~21 (maximum zoom level varies depending on the resolution of the map you are viewing).

mapTypeId:

`mapTypeId: google.maps.MapTypeId.SATELLITE`

- ROADMAP
- TERRAIN
- SATELLITE
- HYBRID