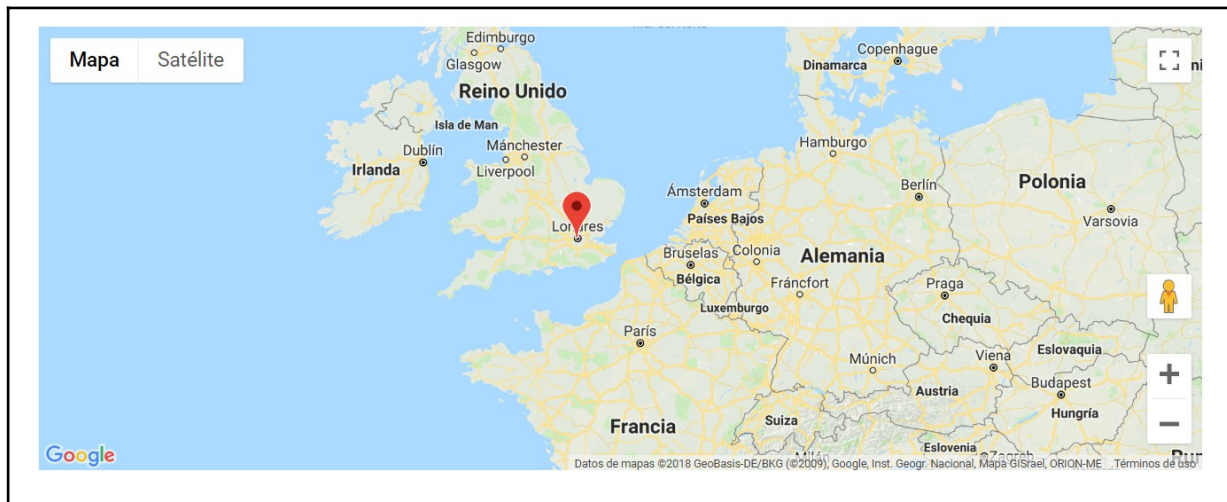# 04. GOOGLE MAPS Events.
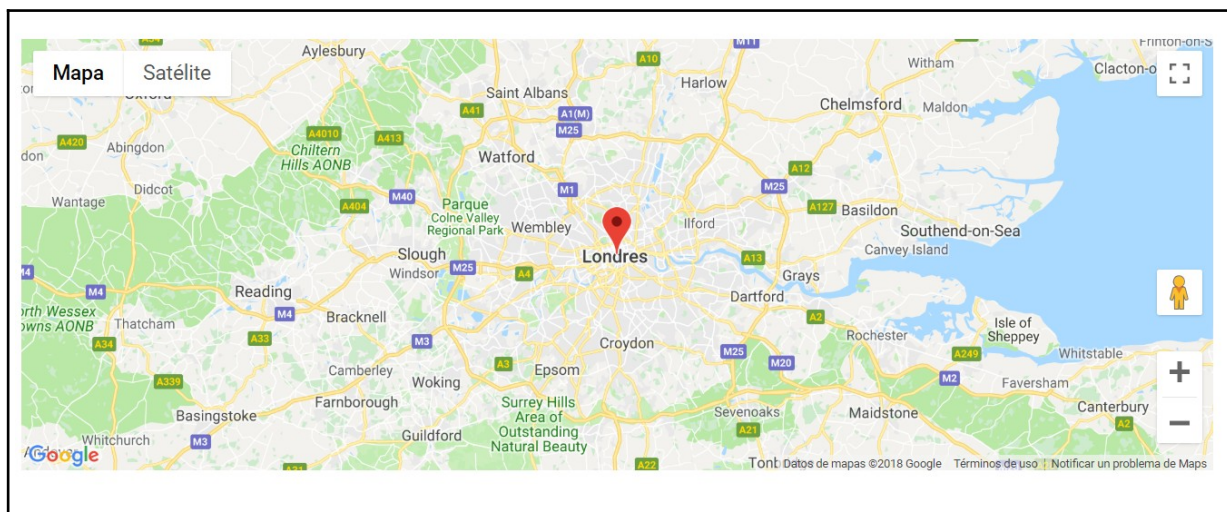
4.1. Google Maps Events

Click the marker to zoom - attach event handlers to Google maps.

Example: Before clicking on the marker.

Example: After clicking on the marker.

4.2. Google Maps Overlays

We still use the map from the previous page: a map centered on London, England.

Now we want to zoom when a user is clicking on the marker (We attach an event handler to a marker that zooms the map when clicked).

Example: Here is the added code:

```
// Zoom to 9 when clicking on marker
google.maps.event.addListener(marker,'click',function() {
  map.setZoom(9);
  map.setCenter(marker.getPosition());
});
```

We register for event notifications using the addListener() event handler. That method takes an object, an event to listen for, and a function to call when the specified event occurs.

4.3. Pan Back to Marker

Here, we save the zoom changes and pan the map back after 3 seconds:

Example:

```
google.maps.event.addListener(marker,'click',function() {
  var pos = map.getZoom();
  map.setZoom(9);
  map.setCenter(marker.getPosition());
  window.setTimeout(function() {map.setZoom(pos);},3000);
});
```

4.4. Open an InfoWindow When Clicking on The Marker

Click on the marker to show an infowindow with some text:

Example:

```
var infowindow = new google.maps.InfoWindow({
```

```
content:"Hello World!"
});

google.maps.event.addListener(marker, 'click', function() {
  infowindow.open(map,marker);
  });
```

4.5. Set Markers and Open InfoWindow for Each Marker

Run a function when the user clicks on the map.

The **placeMarker()** function places a marker where the user has clicked, and shows an infowindow with the latitudes and longitudes of the marker:

Example:

```
google.maps.event.addListener(map, 'click', function(event) {
  placeMarker(map, event.latLng);
  });

function placeMarker(map, location) {
  var marker = new google.maps.Marker({
    position: location,
    map: map
  });
  var infowindow = new google.maps.InfoWindow({
    content: 'Latitude: ' + location.lat() +
    '<br>Longitude: ' + location.lng()
  });
  infowindow.open(map,marker);
}
```