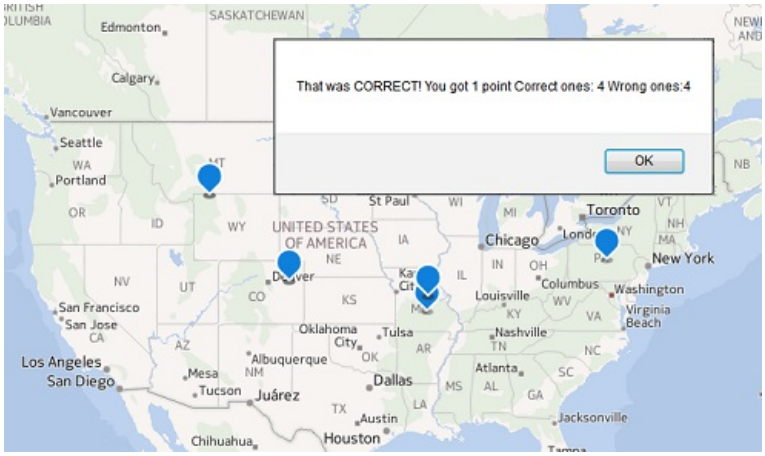
HERE Maps API - Find a USA state (simple game on map utilizing reverse geocoding)

A simple map game demonstrating how to used reverse geocoding in HERE Maps

Introduction

This simple game will introduce how to use the map Event listener for user map clicks, how to find the `geocoordinate` under the clicked mouse point and how to further use the coordinates to perform a `nokia.places.search.manager.reverseGeoCode()` search - all this in a form of a guessing game.



Feel free to modify and further implement your own version of this game.

Prerequisites

HERE Maps API supported web browser (basically any modern web browser)

The example assumes you have already added the HERE Maps to your web page as explained in the previous article HERE Maps API - Add Maps To Any Web Page

Important note about maps credentials

Nokia provides several services options within the Maps API offering. The service is free to use, but you must obtain and use authentication and authorization credentials to use the services. Please read the Location API Business Models and Usage Restrictions page to decide which business model best fits your needs. Authentication requires unique Maps API credentials, namely an AppId and a token. You can get these credentials free from the Nokia Developer API Registration page.

In the code example below is all required HTML and embedded JavaScript, a full functional application.

Game code

The JavaScript for the guessing game can be found below. Remember to add in your own AppId and Token to get it to work.

```
 var statesArray =
["Alabama","Alaska","Arizona","Arkansas","California","Colorado","Connecticut",
"Delaware","District of
Columbia","Florida","Georgia","Hawaii","Idaho","Illinois","Indiana","Iowa","Kansas",
"Kentucky","Louisiana","Maine","Maryland",  "Massachusetts","Michigan","Minnesota",
"Mississippi","Missouri","Montana","Nebraska","Nevada","New Hampshire","New Jersey","New
Mexico",
"New York","North Dakota","North Carolina","Ohio","Oklahoma","Oregon","Pennsylvania",
"Rhode Island",
"South Carolina","South
Dakota","Tennessee","Texas","Utah","Vermont","Virginia","Washington",
"West Virginia","Wisconsin","Wyoming"];
```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```
var right = 0;
var wrong = 0;

map.set("center",  new nokia.maps.geo.Coordinate(42.16, -100.16));
map.set("zoomLevel", 3);
map.set("baseMapType", nokia.maps.map.Display.SATELLITE_PLAIN);
select_random_state();
addClickEventListener(map);
```

```
function select_random_state(){
    randomnumber=Math.floor(Math.random()*50);
    $("#question").text('Find : ' +statesArray[randomnumber]);
}
```

```
function addClickEventListener(map){
 map.addListener("click",function (event){
  event.preventDefault();
  coordinate = map.pixelToGeo(event.displayX, event.displayY);
  map.objects.add(new nokia.maps.map.Marker(coordinate));
  nokia.places.search.manager.reverseGeoCode({
   latitude: coordinate.latitude,
   longitude: coordinate.longitude,
   onComplete: processResults
  })
 });
}
```

```
function processResults(data, requestStatus, requestId) {
 if (requestStatus == "OK" ) {
  if (data.location !== undefined){
   var state = data.location.address.state;

   if (statesArray[randomnumber] == state){
    map.objects.clear();
    select_random_state();
    $("#answer").text("Correct answer, that was:"  + state);
     right += 1;

   } else {
    $("#answer").text("That was:"  + state);
     wrong += 1;
   }
   $("#correct_answers").text("Correct:"  + right);
   $("#incorrect_answers").text("Wrong:"  + wrong);
  }
 }
}
```

A working example can be found at:

http://heremaps.github.io/examples/examples.html#find-an-american-state__index

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For more on the HERE Maps API

Please check out the HERE Maps API full documentation and API reference here:

- HERE Maps API

You may also access the interactive API explorer

- API explorer

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