

Project Report

I , Divya Sharma from **Atal Bihari Vajpayee Government Institute Of Engeneering and Technology Pragatinagar(Shimla ,HP,171202)** have done my 1 month internship organised by TEQIP-111 under the guidance of **Dr. Bhemarjuna Reddy Tmma** . I have been Mmentored by **Dr Digvijay** . I have completed my internship in Intelligent Transport System .

ABOUT TOPIC

- Intelligent Transportation System (ITS) applies advanced technologies of electronics, communications, computers, control and sensing and detecting in all kinds of transportation system in order to improve safety, efficiency and service, and traffic situation through transmitting real-time information
- I worked on the topic “Intelligent Transport System (ITS)”. The main objective is to find the relative distance, time and velocity of two respective coordinates and display on Maps.
- I have done the extraction of information on the dataset given.
- In extraction of data we have to find the initial and final latitudes and longitudes , average velocity ,total length and total time .
- Also i have learned the R language which is language and environment for statistical computing and graphics .
- I also worked on Google maps . I have written a code to access the Google maps with the help of lattitude and longitude using HTML and JavaScript.
- I also wrote a code to access multiple markers at a single map using java script .
- Also, I showed how to draw a line path between two respective coordinates.
- I have learned lots of things here and it is such a good opportunity to come here and explore yourself

Code: 1



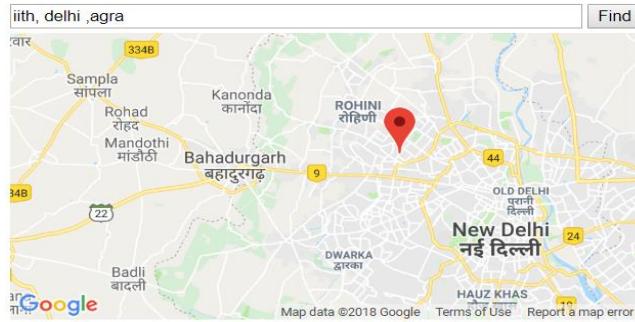
```
<html>
  <head>
    <style>
/* Always set the map height explicitly to define the size of the div
 * element that contains the map. */
      #map {
        height: 100%;
      }
/* Optional: Makes the sample page fill the window. */
      html, body {
        height: 100%;
        margin: 0;
        padding: 0;
      }
    </style>
  </head>
  <body>
    <div id="map"></div>
    <script>
      var map;
      function initMap() {
        map = new google.maps.Map(document.getElementById('map'), {
          zoom: 2,
          center: new google.maps.LatLng(2.8, -187.3),
          mapTypeId: 'terrain'
        });

        // Create a <script> tag and set the USGS URL as the source.
        var script = document.createElement('script');
        // This example uses a local copy of the GeoJSON stored at
        // http://earthquake.usgs.gov/earthquakes/feed/v1.0/summary/2.5_week.geojsonp
        script.src = 'https://developers.google.com/maps/documentation/javascript/examples/json/earthquake_GeoJSONP.js';
        document.getElementsByTagName('head')[0].appendChild(script);
      }

      // Loop through the results array and place a marker for each
      // set of coordinates.
      window.eqfeed_callback = function(results) {
        for (var i = 0; i < results.features.length; i++) {
          var coords = results.features[i].geometry.coordinates;
          var latLng = new google.maps.LatLng(coords[1], coords[0]);
          var marker = new google.maps.Marker({
            position: latLng,
            map: map
          });
        }
      }
    </script>
    <script async defer
      src="https://maps.googleapis.com/maps/api/js?key=AiZaSyCyDWJchEFo-KGe-thy1IsSOXdq9yW4JLU &callback=initMap ">
    </script>
  </body>
</html>
```

Code : 2

Geocoding Demo JavaScript:



```
var map;
var geocoder;
function InitializeMap() {

    var latlng = new google.maps.LatLng(-34.397, 150.644);
    var myOptions =
    {
        zoom: 10,
        center: latlng,
        mapTypeId: google.maps.MapTypeId.ROADMAP,
        disableDefaultUI: true
    };
    map = new google.maps.Map(document.getElementById("map"), myOptions);
}

function FindLocaiton() {
    geocoder = new google.maps.Geocoder();
    InitializeMap();

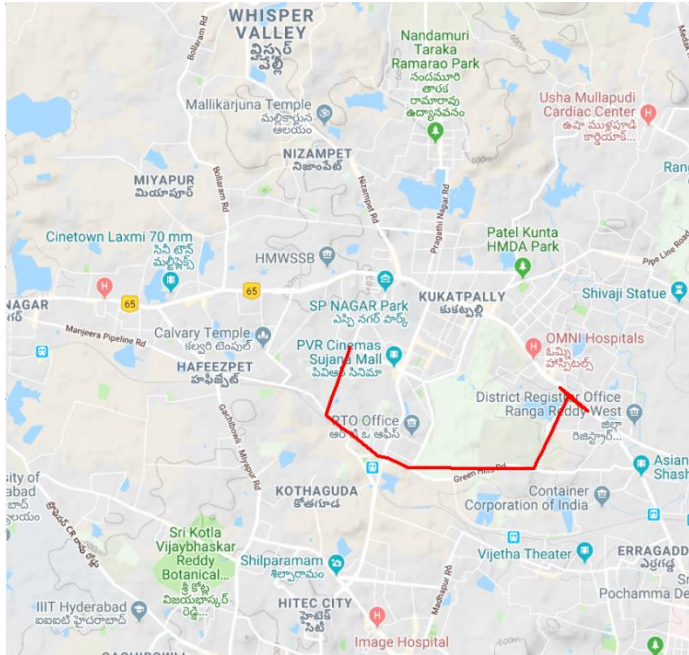
    var address = document.getElementById("addressinput").value;
    geocoder.geocode({ 'address': address }, function (results, status) {
        if (status == google.maps.GeocoderStatus.OK) {
            map.setCenter(results[0].geometry.location);
            var marker = new google.maps.Marker({
                map: map,
                position: results[0].geometry.location
            });
        }
        else {
            alert("Geocode was not successful for the following reason: " + status);
        }
    });
}

function Button1_onclick() {
    FindLocaiton();
}

window.onload = InitializeMap;

</script>
</head>
<body>
<h2>Geocoding Demo JavaScript: </h2>
<table>
<tr>
<td>
    <input id="addressinput" type="text" style="width: 447px" />
</td>
<td>
    <input id="Button1" type="button" value="Find" onclick="return Button1 onclick()" /></td>
</tr>
</table>
</body>
</html>
```

Code: 3



```
1 library(ggmap)
2
3 route_df <- route(from = "Hyderabad, Telangana 500085, India",
4                   to = "kukatpally, Hyderabad, Telangana 500072, India",
5                   structure = "route")
6
7 my_map <- get_map("Hyderabad, Telangana 500085, India", zoom = 13)
8
9 ggmap(my_map) +
10   geom_path(aes(x = lon, y = lat), color = "red", size = 1.5,
11            data = route_df, lineend = "round")
12
13 |
```