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**TITLE OF THE PROJECT**

“Location based nereby places”

**NAME OF GUIDE NAME OF STUDENT**

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**ACKNOWLEDGEMENT**

I would like to express my special thanks of gratitude to Mrs. Anshul Tikoo who gave me the golden opportunity to do this wonderful project on the topic “Location based nereby places – mobile application”, which also helped me in doing a lot of Research and i came to know about so many new things I am really thankful to them.

Secondly i would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

Thanking you,

Somesh Saxena

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Roll No – 45

Batch - 2014-2018

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**Abstract /Executive Summary**

I am Persuing Btech in computer science stream , an in-house-trainig with the aim to improve my technical abilities in computer science.

My topic for this in-house-training was to learn how to create an application in android, to track users current location and display nereby places as according.

My role was of an android application developer. Under this role, I was to work alone developing one applications which could be run on an android phone. The domain chosen by my group was location development nereby places app.For the first two weeks, we were made to learn/ master the coding techniques of application development relevant to our assigned work. During this period, we were assisted a lot by our mentors at the firm. After that, we were assigned the actual application to be developed for the next four weeks.The reason for choosing android application development is that the field providesa lot of scope to grow. Android Development tools are open source and hence an individual can flourish as an android programmer upto full extent. Another reason is that the field is relatively new in the industry and the trends show that there is aheavy need of android programmers in the market

This in-house-training allowed me to increase my knowledge in mobile app development.

**Introduction**

As part of my University, in the 5th semester a in-house-training is required. This is the option I chose when the opportunity was given to me to be able to develop a application. I was under the tutelage of Mrs. Anshul Tikoo, who offered me as project to do an android application. Android is an operating system for mobile devices.

This project was conducted in two stages: the first is to familiarize myself with the development in android (development tools, coding instructions, setting up the display). During this first step I tried to do a Task Killer, because there is not task manager under android. For the second part of my project, I needed a topic that can be useful and accessible for me because of my low skills in Mobility. My guide proposed the idea of a mobile application to help through this project .

I intend to have completed the application once my internship ended, because there was lack of time to

finish my application,and so the graphics are quite neglected, and I would like to add support for the

geolocation in certain situations, but all this will detailed in the section on my application.

**Development Services provided to Clients**

The company’s integrated consulting in information technology, website development,

graphicdesigning and printing solutions and all other kinds of possible business solutions providing

capabilities to bring continuity and consistency to the client’s strategic programs.

**WEBSITE DEVELOPMENT SERVICES:**

 IT Consulting, Information Risk Management, Infrastructure Services, IT Process and ServiceManagement, IT Strategy and Governance, Master Data Management, PerformanceEngineering Solutions, Quality Assurance, Testing and Training.Website Development, including website design, Custom CMS website development, SearchEngine Optimization, website maintenance, portal, Ecommerce Solution with latest technologyweb 2.0, open source development (Oscommerce, Magento, Zencart, X-cart, CS-cart, Joomla,Drupal, Word Press).CMS website- We offer Web Content management services that help organizations todistribute and manage information faster and more efficiently.Our customized websitecontent management solution helps companies to enjoy uncomplicated management of theirwebsites and other crucial online content with reduced time and effort.E-commerce- E-commerce web solutions enable the distribution, buying, selling, marketing,and servicing of products or services over the Internet and help to reduce costs while reachinga wider market.

**SOFTWARE DEVELOPMENT SERVICES:**

We provide single permanent solution in software delivery to secondary assignments throughgraphic designers and information systems technicians. Software Development is acollaborative effort in proper unison concluding through proper efforts. Services are providedas per client's requirements and budget to the best of our efforts.Thinking differently, Providing Services Efficiently, Cutting down Cost, Increase the Salesthrough various Promotional Techniques, and Make Revenue Grow are some of our qualitieson which clients grow.

**MOBILE DEVELOPMENT SERVICES:**

The number of ways, your business can utilize the power of a mobile phone are many for thiswe provide services in Android Development as well as in windows mobile Development.And here we come into the role, you can utilize our services like Android SolutionsDevelopment as well as windows mobile development.

**My Role As An TRAINEE :**

I was absorbed in the mobile development services. My role was of an android application developer. Under this role, I was to work alone developing one applications which could be run on an android phone. The domain chosen by my group was location development nereby places app.For the first two weeks, we were made to learn/ master the coding techniques of application development relevant to our assigned work. During this period, we were assisted a lot by our mentors at the firm. After that, we were assigned the actual application to be developed for the next four weeks.The reason for choosing android application development is that the field providesa lot of scope to grow. Android Development tools are open source and hence an individual can flourish as an android programmer upto full extent. Another reason is that the field is relatively new in the industry and the trends show that there is aheavy need of android programmers in the market. Yet, another reason is that the programmer can easily put up his/her product in the android app market and can earn a good deal of supportive income.

**Project Realization**

**Softwares Required:**

The following softwares are required before a programmer can start developing applications for android:

1. HTML5

2. Cordova

3. Brackets

4. CSS

5. JavaScript

6.Bootstrap

7.Jquery Mobile

8.Java Development Kit.

All the above mentioned softwares are open source and available on trusted websites. Once all of the above are installed, we run the Cordova Emulator, which is a virtual android device to test the applications developed right on the desktop.

**Google Maps API’s**

Google Maps API lets you customize maps, and the information on maps.

An API is a set of methods and tools that can be used for building software applications.

1. **Load the Google API :**

The Google Maps API is a JavaScript library. It can be added to a web page with a <script> tag:

<script src="http://maps.googleapis.com/maps/api/js"></script>

1. **Set Map Properties :**

var mapProp = {

  center:new google.maps.LatLng(51.508742, -0.120850),

  zoom: 7,

  mapTypeId: google.maps.MapTypeId.ROADMAP

};

The **center** property specifies where to center the map. Create a **LatLng** object to center the map on a specific point. Pass the coordinates in the order: latitude, longitude.

The **zoom** property specifies the zoom level for the map. zoom: 0 shows a map of the Earth fully zoomed out. Higher zoom levels zoom in at a higher resolution.

The **mapTypeId** property specifies the map type to display. The following map types are supported:

* ROADMAP (normal, default 2D map)
* SATELLITE (photographic map)
* HYBRID (photographic map + roads and city names)

TERRAIN (map with mountains, rivers, etc.)

1. **Create a Map Container :**

Create a <div> element to hold the map. Use CSS to size the element:

<div id="googleMap" style="width:500px;height:380px;"></div>

1. **Create a Map Object :**

var map=new google.maps.Map(document.getElementById("googleMap"), mapProp);

The code above creates a new map inside the <div> element with id="googleMap", using the parameters that are passed (mapProp).

1. **Add an Event Listener to Load the Map :**

Add a DOM listener that will execute the initialize() function on window load (when the page is loaded):

google.maps.event.addDomListener(window, 'load', initialize);

**Asynchronously Loading :**

It is also possible to load the Google Maps API on demand.

The example below uses window.onload to load the Google Maps API after the page has fully loaded.

The loadScript() function creates the Google Maps API <script> tag. In addition, the callback=initialize parameter is added to the end of the URL to execute the initialize() function after the API is fully loaded.

**Google API Key :**

Google allows your web site to call any Google API, many thousand times per day.

If you plan for heavier traffic, you should get a free API key from Google.

Go to [https://console.developers.google.com](https://code.google.com/apis/console/) to get a free key.

Google Maps expects to find the API key in the **key** parameter when loading an API:

<script src="http://maps.googleapis.com/maps/api/js?**key=YOUR\_KEY**"></script>

**Google Maps – Overlays :**

Overlays are objects on the map that are bound to latitude/longitude coordinates.

Google Maps has several types of overlays:

* Marker - Single locations on a map. Markers can also display custom icon images
* Polyline - Series of straight lines on a map
* Polygon - Series of straight lines on a map, and the shape is "closed"
* Circle and Rectangle
* Info Windows - Displays content within a popup balloon on top of a map
* Custom overlays

**Google Maps - Add a Marker :**

The Marker constructor creates a marker. (Note that the position property must be set for the marker to display).

Add the marker to the map by using the setMap() method:

var marker=new google.maps.Marker({

  position:myCenter,

  });

marker.setMap(map);

**Technologies Used**

**HTML5 :**

HTML is a **markup** language for **describing** web documents (web pages).

* HTML stands for **H**yper **T**ext **M**arkup **L**anguage
* A markup language is a set of **markup tags**
* HTML documents are described by **HTML tags**
* Each HTML tag **describes** different document content
* The **<!DOCTYPE html>** declaration defines this document to be HTML5
* The text between **<html>** and **</html>** describes an HTML document
* The text between **<head>** and **</head>** provides information about the document
* The text between **<title>** and **</title>** provides a title for the document
* The text between **<body>** and **</body>** describes the visible page content
* The text between **<h1>** and **</h1>** describes a heading
* The text between **<p>** and **</p>** describes a paragraph

**CSS :**

**CSS** stands for **C**ascading **S**tyle **S**heets.

CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**.

CSS **saves a lot of work**. It can control the layout of multiple web pages all at once.

CSS can be added to HTML elements in 3 ways:

* **Inline** - by using the style attribute in HTML elements
* **Internal** - by using a <style> element in the <head> section
* **External** - by using an external CSS file

**JAVASCRIPT :**

The **<script>** tag is used to define a client-side script (JavaScript).

The <script> element either contains scripting statements, or it points to an external script file through the **src** attribute.

Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.

**BOOTSTRAP :**

Responsive Web Design makes your web page look good on all devices (desktops, tablets, and phones).

Responsive Web Design is about using CSS and HTML to resize, hide, shrink, enlarge, or move the content to make it look good on any screen.

**JQUERY-MOBILE :**

jQuery Mobile is built on top of the jQuery library, which makes it easy to learn if you already know jQuery.

It uses HTML5, CSS3, JavaScript and AJAX to accomplish its work for laying out pages with minimal scripting.

**Code Extract**

**This is the HTML5 coding :**

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="utf-8">

<meta name="viewport" content="initial-scale=1.0, user-scalable=no">

<link rel="stylesheet" type="text/css" href="css/index.css" />

<link rel="stylesheet" type="text/css" href="css/bootstrap.min.css" />

<link rel="stylesheet" type="text/css" href="css/jquery.mobile-1.4.5.css" />

<link rel="stylesheet" href="css/bootstrap.min.css">

<script src="js/jquery.min.js"></script>

<script src="js/jquery.mobile-1.4.5.min.js"></script>

<script type="text/javascript" src="js/index.js"></script>

<script async defer src="https://maps.googleapis.com/maps/api/js?key=AIzaSyA1A0iUVcZi6F4sg5hwlPFBAlGPCA0RvFE&libraries=places">

</script>

<!-- <script type="text/javascript" src="http://maps.googleapis.com/maps/api/js?libraries=places&sensor=false"></script> -->

<script src="js/index.js"></script>

<script type="text/javascript">

$(document).ready(function() {

$('.statsButtonmain').on('click', function() {

var q = $(this).children("li").attr("data-id");

localStorage.setItem("data-id", q);

// window.location.href="index.html#mapPage";

$.mobile.changePage('#mapPage', {

transition: 'none'

});

});

});

</script>

</head>

<body>

<div data-role="page" id="home">

<ul class="home-ul">

<div data-role="content">

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="atm"><label class="lab-classes">ATM</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="hospital"><label class="lab-classes">HOSPITAL</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="banks"><label class="lab-classes">BANKS</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="cafe"><label class="lab-classes">CAFE</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="art\_gallery"><label class="lab-classes">ART GALLERY</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="police"><label class="lab-classes">POLICE</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="food"><label class="lab-classes">FOOD</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

<div>

<a href="#" class="statsButtonmain">

<li class="home-leftlist" data-id="bar"><label class="lab-classes">BAR</label><br><img src="img/loc.png" class="img-class1"></li>

</a>

</div>

</div>

</ul>

</div>

<div data-role="page" id="mapPage">

<div data-role="content">

<div class="statsButtonmainTwo">

<div id="gmap\_canvas"></div>

</div>

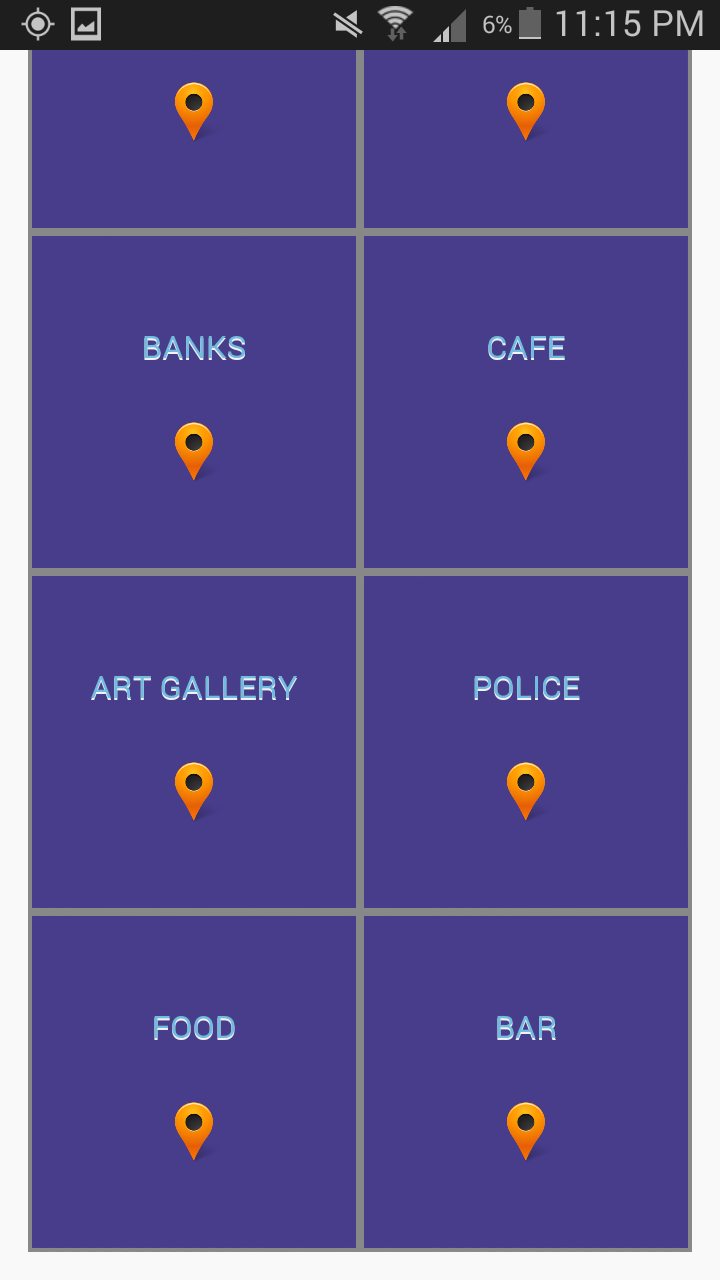
</div>

</div>

</body>

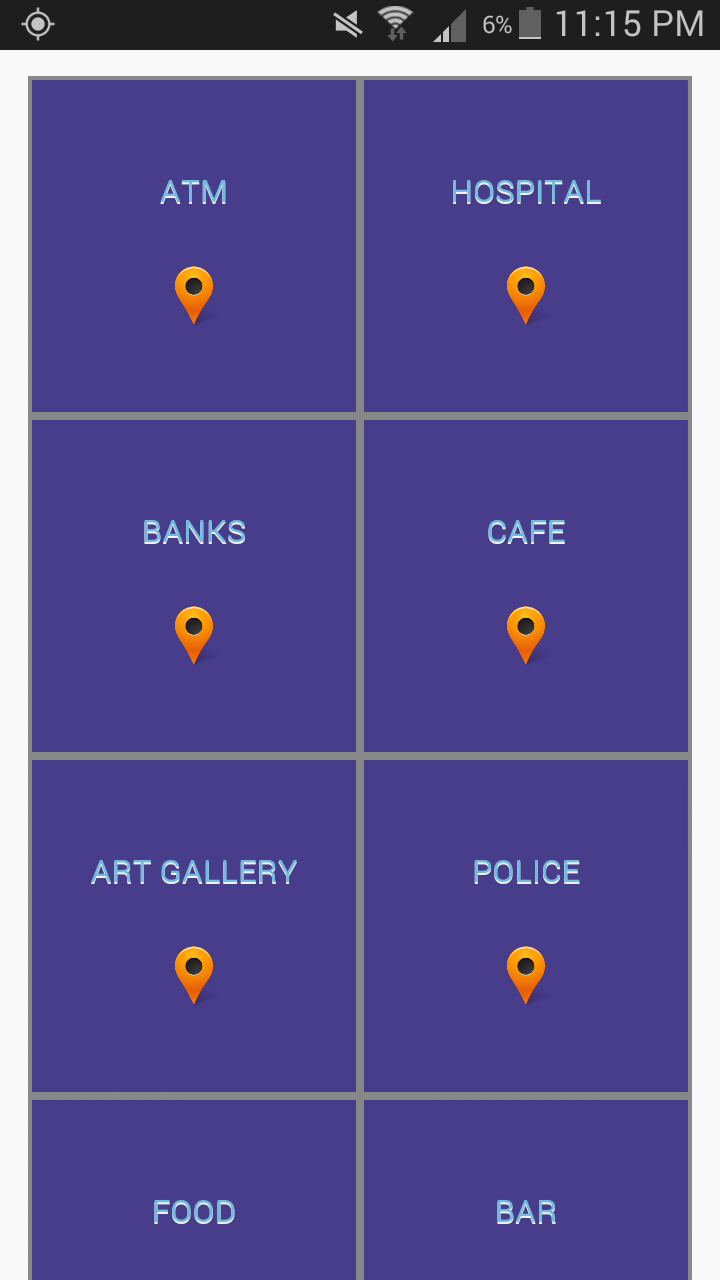
</html>

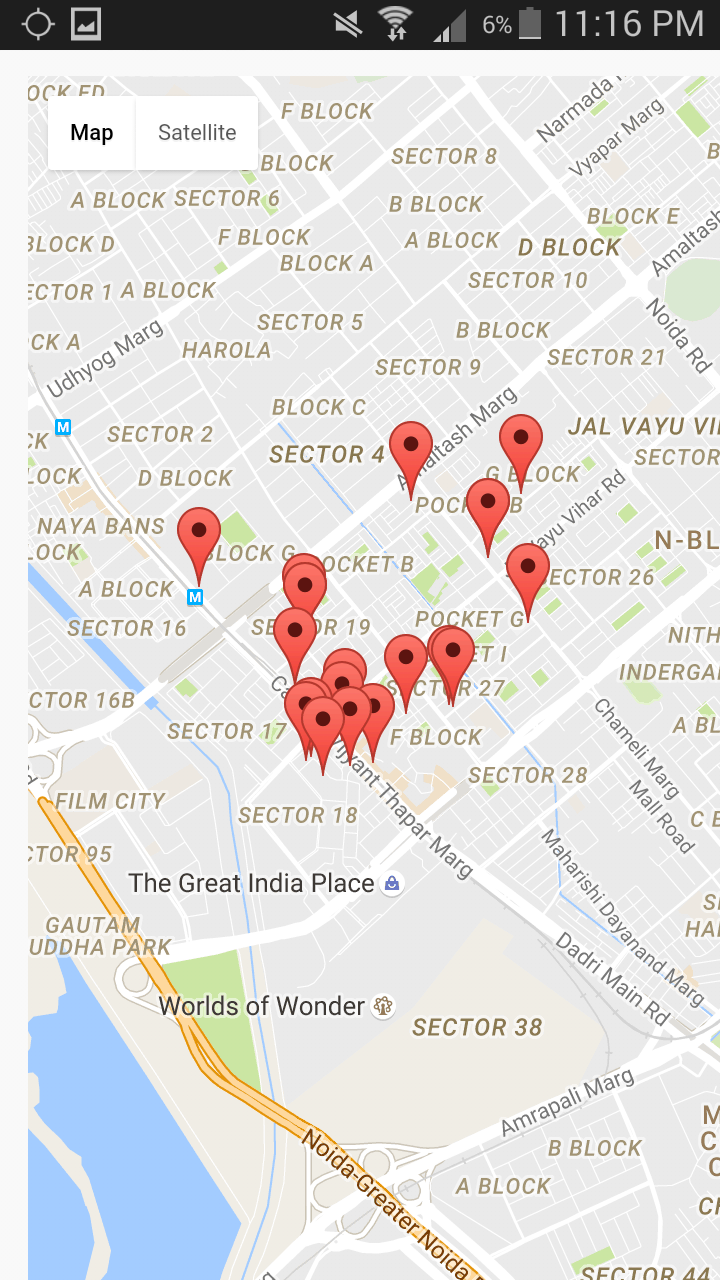
**Screenshots**

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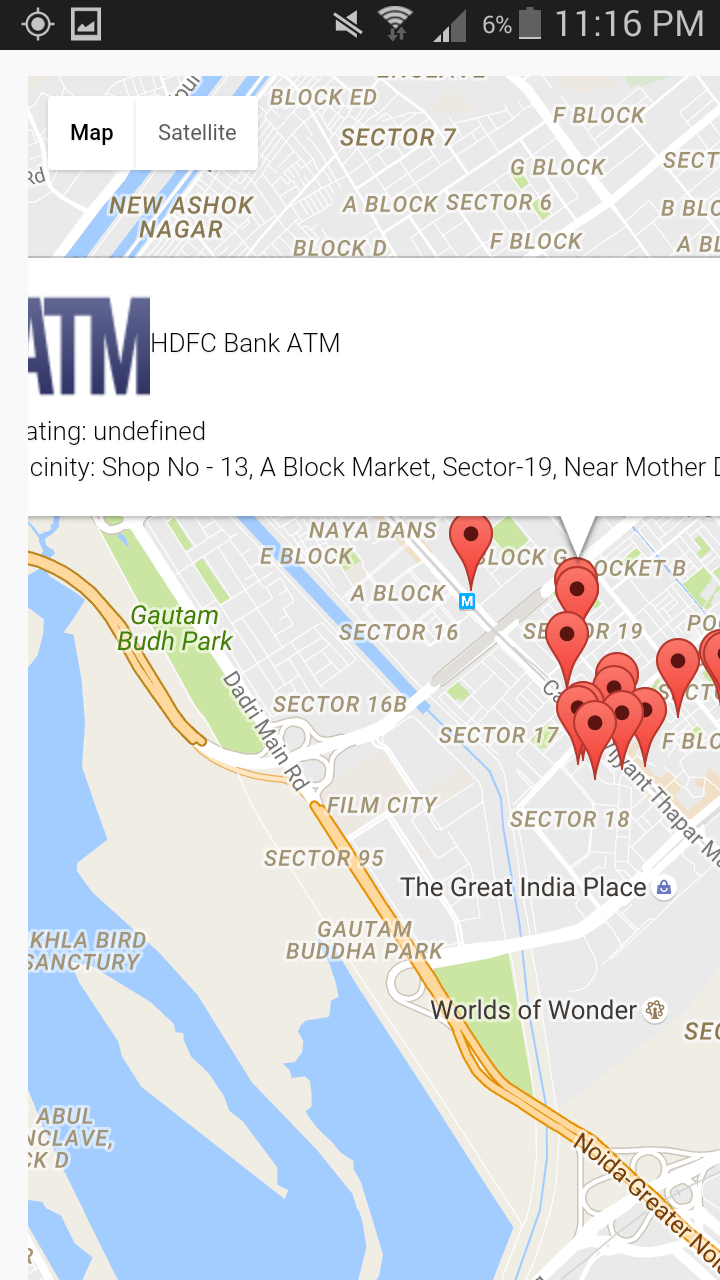
This is my home screen. You can view on any tab by simply clicking on it.

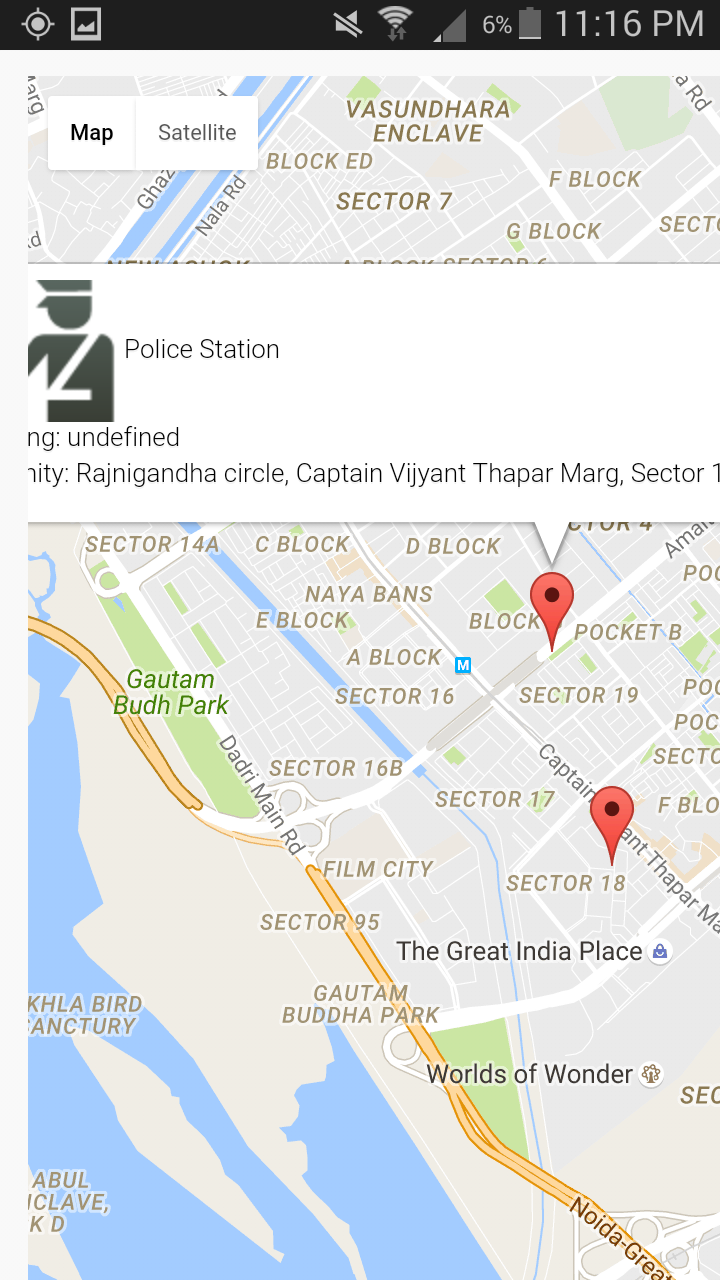
Like you want to see BANKS near you just click the “BANKS” box and it will be showed in next maps page.

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This is my second page . After clicking on the desired box you will be navigated to this screen. In this screenshot the available places are marked up with RED pointers.

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**Reference/ Bibliography:**

Mrs. Anshul Tikoo– (Guide)

Ms. Supriya Pandey – (T.C.S.)

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