<p style="text-align: center">User Manual</p>

The EasyPark android app is licensed under the MIT license
Please see the file COPYING in https://github.com/swethavs/EasyPark/blob/master/COPYING
for license terms

<u>Build Instructions:</u>
1. Make sure you have JDK 8 and eclipse Luna installed in your machine
2. Install the google play services and add it as a library to eclipse workspace.
3. Download the android code for EasyPark from
   https://github.com/swethavs/EasyPark/tree/master/EasyParkAndroidSourceCode and
   add it to work space
4. Reference google play services library in the project
5. Generate google maps API key and add it in the android.manifest file.
   You can refer this link for API key generation:

   http://code.tutsplus.com/tutorials/android-sdk-working-with-google-maps-application

6. Make sure you have installed the Android 5.1.1 with the API from Android SDK manager
7. Now, put your android mobile in debugging mode after enabling the location service and
   run the app.
8. If you wish to modify the PHP/MySQL code then you need to have XAMPP/WAMP
   server installed in your system. Follow the below steps
   a. Copy the PHP code in htdocs folder
   b. Import the SQL file in PHPMyAdmin console
   c. Run the SQL server and Apache web server
   d. Replace the website address in android code with your IP address
   e. Re-run the android app

<u>Pre-Requisites:</u>

1. Android device with location service enabled and internet connection
2. Your system with eclipse and JDK installed
3. Android plugin should be installed for Eclipse

<u>Screen Shots:</u>
 Refer to the ppt in GitHub:
https://github.com/swethavs/EasyPark/blob/master/EasyPark.pptx

API Request and Reply:

    1. Get Parking Lots:

URL:
http://easypark.net46.net/easypark/getparkinglotsdata.php

Sample Request:
latitude=45.5236118&longitude=-122.889051&isradius=true&radius=2.0&zipcode=0&fromtime=
1437692880000&endtime=1437696480000

Sample Response:

{"success":1,"parkinglots":[{"parkinglotsid":"1","address":"611 NW Garswodd Ter Beaverton
97006","miles":"0.00416591895179231","cost":"12","latitude":"45.5236201","longitude":"-122.88
89657"},{"parkinglotsid":"8","address":"612 NW Garswood Ter
Beaverton","miles":"0.0771588745646188","cost":"16","latitude":"45.5236201","longitude":"-122.
887456"}]}
<!-- Hosting24 Analytics Code -->
<script type="text/javascript" src="http://stats.hosting24.com/count.php"></script>
<!-- End Of Analytics Code -->

2. Get Parking Spots:

URL:
http://easypark.net46.net/easypark/getparkingspots.php

Sample Request:
individualparkinglotid=1&fromtime=1437708000000&endtime=1437711600000

Sample Response:

{"success":1,"parkingspots":[{"parkingspotsid":"1","parkingspotname":"Level 3:
C2"},{"parkingspotsid":"2","parkingspotname":"Level 2: B7"}]}
<!-- Hosting24 Analytics Code -->
<script type="text/javascript" src="http://stats.hosting24.com/count.php"></script>
<!-- End Of Analytics Code -->

3. Update Parking Spot:

URL:
http://easypark.net46.net/easypark/updateparkingspot.php

Sample Request:
individualparkinglotid=1&fromtime=1437708000000&endtime=1437711600000&parkingspotid=
1

Sample Response:
{"success":1,"parkingaddressarray":[{"parkingaddress":"611 NW Garswodd Ter Beaverton
97006","latitude":"45.5236201","longitude":"-122.8889657"}]}
<!-- Hosting24 Analytics Code -->
<script type="text/javascript" src="http://stats.hosting24.com/count.php"></script>
<!-- End Of Analytics Code -->

4. Free Parking Get Parking Lots:

URL:
http://easypark.net46.net/easypark/selectfreeparkinglots.php

Sample Request:
latitude=45.5235808&longitude=-122.8890029

Sample Response:
{"success":1,"freeparkinglots":[{"latitude":"45.523742","longitude":"-122.889676","nooflots":"5","
miles":"0.0344103453785116","time":"1439222460000","user":"hi","address":"20630 NW
Delamere Terrace\nHillsboro, OR
97006\nHillsboro\n"},{"latitude":"45.523419","longitude":"-122.889449","nooflots":"3","miles":"0.0
242999641521018","time":"1439174580000","user":"hi","address":"20614 NW Delamere
Terrace\nBeaverton, OR
97006\nBeaverton\n"},{"latitude":"45.524228","longitude":"-122.888683","nooflots":"65","miles":"
0.0472896867300036","time":"1439168700000","user":"hi","address":"649 NW Garswood
Terrace\nBeaverton, OR
97006\nBeaverton\n"},{"latitude":"45.523592","longitude":"-122.888702","nooflots":"9","miles":"0.
0145763123511702","time":"1439164560000","user":"hi","address":"20578 NW Brentford
Terrace\nHillsboro, OR
97006\nHillsboro\n"},{"latitude":"45.523812","longitude":"-122.888382","nooflots":"6","miles":"0.0

340140305455641","time":"1439164320000","user":"hi","address":"610 NW Garswood Terrace\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.523859","longitude":"-122.887389","nooflots":"9","miles":"0.0803991491153977","time":"1439163780000","user":"hi","address":"636 NW Adwick Dr\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.5235798","longitude":"-122.8890506","nooflots":"6","miles":"0.00230848051418883","time":"1439151780000","user":"hi","address":"611 NW Garswood Terrace\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.5235747","longitude":"-122.8890372","nooflots":"2","miles":"0.00171185470081542","time":"1439151720000","user":"hi","address":"611 NW Garswood Terrace\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.517223","longitude":"-122.870319","nooflots":"8","miles":"1.00482790674428","time":"1439078820000","user":"hi","address":"18775 SW Lisa Ct\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.5235721","longitude":"-122.8889703","nooflots":"36","miles":"0.00168752928881285","time":"1439077260000","user":"hi","address":"611 NW Garswood Terrace\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.539101","longitude":"-122.878786","nooflots":"10","miles":"1.18004966920175","time":"1439075340000","user":"hi","address":"2796 NW Palazza Way\nHillsboro, OR 97124\nHillsboro\n"},{"latitude":"45.523844","longitude":"-122.888122","nooflots":"9","miles":"0.0463259064066872","time":"1439074680000","user":"hi","address":"629 NW Adwick Dr\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.521935","longitude":"-122.886917","nooflots":"6","miles":"0.151969334096096","time":"1439074380000","user":"hi","address":"363-365 NW Gina Way\nBeaverton, OR 97006\nBeaverton\n"},{"latitude":"45.524424","longitude":"-122.893737","nooflots":"3","miles":"0.236290892276667","time":"1439073660000","user":"hi","address":"20960 NW Nick Way\nHillsboro, OR 97006\nHillsboro\n"},{"latitude":"45.5235808","longitude":"-122.8890029","nooflots":"1","miles":"0","time":"1438979460000","user":"swethavs","address":"611 NW Garswood Terrace\nBeaverton, OR 97006\nBeaverton\n"}]}

<!-- Hosting24 Analytics Code -->
<script type="text/javascript" src="http://stats.hosting24.com/count.php"></script>
<!-- End Of Analytics Code -->

5. **Insert Free Parking Lots:**

URL:
http://easypark.net46.net/easypark/insertfreeparkinglots.php

Sample Request:
latitude=45.5235808&longitude=-122.8890029&address=611+NW+Garswood+Terrace%0ABeaverton%2C+OR+97006%0ABeaverton%0A&nooflots=1&time=1438979460000&user=swethavs

Sample Response:

```
{"success":1}
<!-- Hosting24 Analytics Code -->
<script type="text/javascript" src="http://stats.hosting24.com/count.php"></script>
<!-- End Of Analytics Code -->
```

OTHER POSSIBLE RESPONSE:

1. ```
   {"success":0,"message":"Required field(s) is missing"}
   <!-- Hosting24 Analytics Code →
        <script type="text/javascript"
   src="http://stats.hosting24.com/count.php"></script>
   <!-- End Of Analytics Code →
   ```

2. ```
   {"success":0,"message":"No parkinglots found"}
   <!-- Hosting24 Analytics Code →
   <script type="text/javascript"
   src="http://stats.hosting24.com/count.php"></script>
   <!-- End Of Analytics Code -->
   ```