# INSTRUCTIONS

The Indoor Car Navigation System is based on Client-Server architecture model. It contains two seprate codebase for server and client.

**CNSServer:** The major objective of this module is allow services like downloading the map, providing route information and Saving the fingerprints. All the services from the server is exposed as Jax-WS webservices.

Classes:
ICNSController: It is an interface which contains all the service operations.
CNSController: The class implements the ICNSController controller and provides method implementation of all the operations.
PostGresDB: The class works as database pointer to CNSController. It contains methods to retrieve and save the data in postgreSql.

The code has been hosted in tomcat webserver.

**CNS:** This is an android based application. It contains only one Activity. It consumes services provided by the Server and provides a user friendly interface.

Classes:
MainActivity: Contains all the ui elements and functionalities needed to display on the UI.
com.example.cns.domains: This package contains all the required domain classes like Point, WifiAccessPoint, PointDistance, Direction enum etc.
com.example.testSoap.wcf: This package contains all the proxy classes which are used to call the Jax based web services from the android application. This proxy classes has been created using easywsdl.com tool.

In addition to above two project we have two more support projects.

**FingerPrints**: This is an android based application. This is used in offline phase to capture the fingerprints. This application provides an user interface to enter the (x,y,z) coordinates of a reference point and number of times to scan and Wi-Fi scan timeout.

**CNSGeoFence:** This is an android based application. This application provides google map interface and enables the user to create geo fence at any location with a specified radius. This has been used to create a geo fence around the parking with 80 m radius.

**Database Schema:** The file contains the scripts to create all the required tables and functions in postgresqk database.