and post messages and suggestions for the existing incidents. After the user logins, the system forwards him/her to the main page as shown in Figure 1. In the main page existing road works are listed which are retrieved from Turkish Directorate of Highways. On the right hand side there is a field indicating the weather status in the local area and this is also retrieved from the Google Weather service.

A. User Registration

The module is designed and developed for user registration and login. The register in this app and can view the updates on the map and can know in advance the roadblocks and traffic in that area. The application also consist the admin login in which traffic department can use this to post the status of the traffic.

Figure 1: Login Module

B. Displaying Incidents

The incidents or traffic details are updated in the map based on the vehicle location if the vehicles are at the same location for some minutes then that location will be marked as congested with red circle or line. The user can set the home location so that the application will ignore. The application will be started only when there is a change in location for a continuous amount of time (i.e) when the vehicle is moving.

Figure 2: User Interface

C. Status Update By The Admin

The comments and the details about the roadblock or the traffic can be posted by the admin and the status of the incident can be changed by the admin.

2.2 IMPLEMENTATION ON ANDROID

The System is implemented using Android API 1.5 that supports from froyo version as the base version. The application is build in eclipse mars which comes with Android SDK (ADT Bundle).The minimum requirement to run android sdk is java JDK 7 or JDK 8.The data storage is done on the server with the help of XAMPP server tool,which is the product of apache tomcat.

At first user login is made and user can get update through intimations and can view incidents in the map which uses google API 1.3.The vehicles locations are collected through HTTP request with the help of GPS. f there is no change in the location. Then that location details (i.e)latitude and longitude will be sent to the server and will be updated in the map. For example if vehicles stand on the road for long time ,say for 20 minutes then that area's location is obtained as latitude=13.465 N and longitude =79.234 E. And then all users can view the updates or get intimations if their data connection is ON.

The status updates can only be given by the admin (Traffic police department).And can clear incident marks on the map if the traffic is clear.

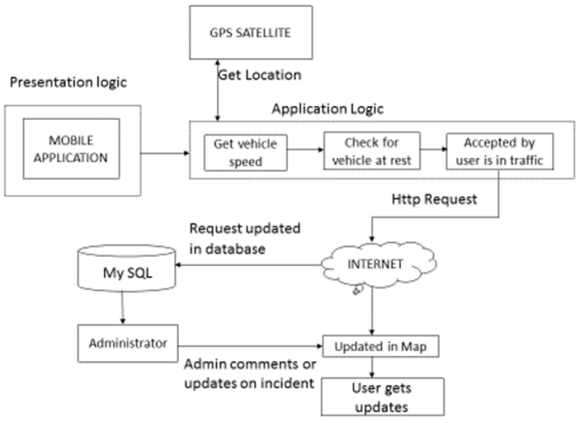

Figure 3: Architecture Diagram

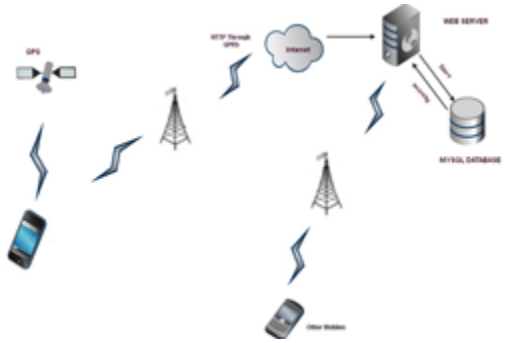

Figure 4: Architectural Diagram Pictorial Representation

III. RESULTS AND DISCUSSION

In order to evaluate our solution in terms of user acceptance, a survey was conducted among the potential users who have smart phones. The questionnaire used in the survey consists of two main parts. The first part of the survey contains the questions about demographic information of the participants (including age, gender, and occupation), daily time spent on the traffic, the tools they used for traffic and their satisfaction with the general traffic at their residence.

182 participants attended the evaluation study and completed the survey. Most of the participants (64.28%) were males and about one third (35.72%) were females. The age distribution was from 22 to 50 years old with an average of 28.84 and a standard deviation of 4.52. More than 90% of respondents were below 35 years of age.

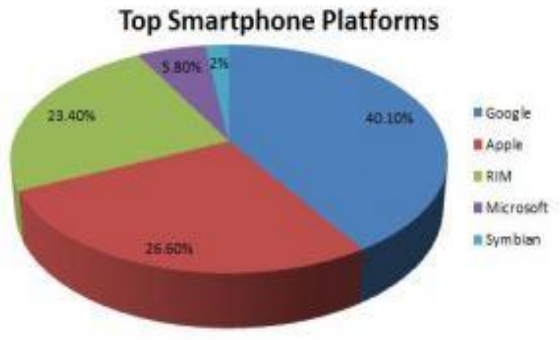

Figure 5: Smartphone Users

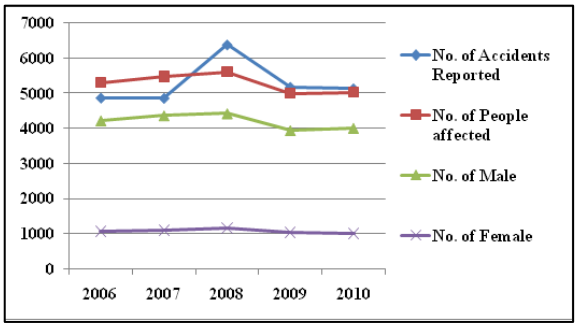

Figure 6: Traffic Reports in Chennai City By Traffic Police Department:

PROCESS IN THE APPLICATION

Our application uses GPS location as the main feature to extract location details.The following code explains how to get GPS location details.

```
public class GpsBasicsAndroidDemo extends
Activity implements LocationListener
{
private LocationManager locManager; @Override
protected void
onCreate(BundlesavedInstanceState)
  {
  super.onCreate(savedInstanceState);
  setContentView(R.layout.activity_gps_basics_
  android_example);
  locManager = (LocationManager)
  getSystemService(Context.LOCATION_SERVICE);
  {#link LocationListener} whose
  onLocationChanged(Location)
  locManager.requestLocationUpdates(
  LocationManager.GPS_PROVIDER,3000,
  10, this);
}
@Override

public void onLocationChanged(Location loc)
{
String strng = "Latitude:
"+loc.getLatitude()+"
Longitude: "+loc.getLongitude();

Toast.makeText(getBaseContext(), strng,
Toast.LENGTH_LONG).show();
}
@Override
public void onProviderDisabled(String
provider) {
Toast.makeText(getBaseContext(), "Gps turned
off ", Toast.LENGTH_LONG).show();
}

@Override
public void onProviderEnabled(String provider)
{
Toast.makeText(getBaseContext(), "Gps turned
on ", Toast.LENGTH_LONG).show();
}
  @Override
  public void onStatusChanged(String provider,
  int status, Bundle extras)
  {
}
}
```

Figure 7: View Module of Application

VIEW MODEL OF THE APPLICATION

The view model consists of the MapView in which the user can see the incidents on the road.

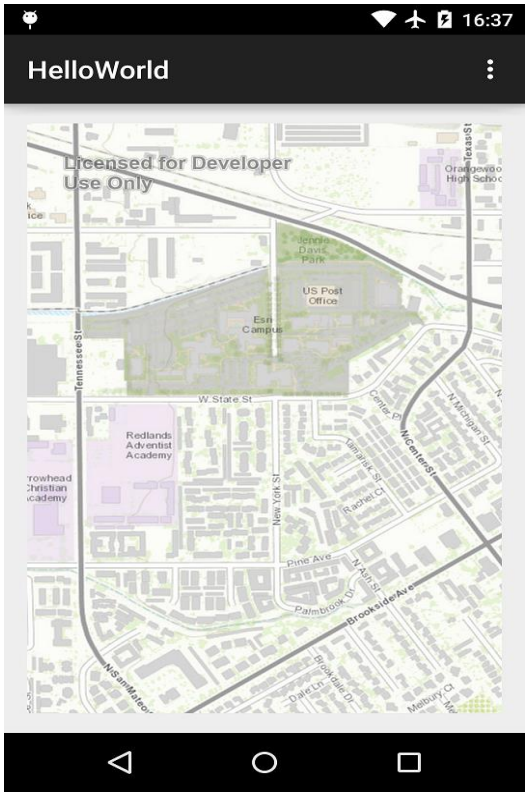

Figure 8: Map View of Application

IV. CONCLUSION

Urbanization and the number of vehicles are rapidly increasing in the largest cities and as a result of this, traffic congestion problems are still one of the most significant problems. Transportation infrastructure is mostly not enough to keep pace with this growth. In this study, a social traffic network system is implemented by integrating the social networking and web-service technology in order to overcome the traffic problem.

This Android Application helps user to get real time updates about traffic in their nearest location. This Application can be enchanced by monitoring vehicle speed and can get real time updates more effectively and with high efficiency.

V. REFERENCES

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