Assignment - VII

Title :- Design a mobile app using Google map & GPS to trace the location.

Problem statement :-

Design a mobile app using Google maps & GPS to trace the location

Objection :- To implement mobile app to trace the location

Outcome :- students will be able to implement mobile app using google maps & GPS to trace the location

S/W & H/W package :- 64 bit Fedora OS
Andraid studio

Theory :-

Google maps is web-based service that provides detailed information about geographical regions & sites around the world. In addition to conventional road maps, google maps offers serial &

& sattelite views of many places. In some cities, Google maps offer street views, comprising photograph taken from vehicles.

- With google maps installed on your device you can view street & satelite maps of the whole world. Not only this, but it can be used to plot routes, find local places, socialize with people around you & 'walk' along the roads with google street view.
- Google maps is incredibly easy to use on an android ~~studio~~ device. It automatically detects your current location & displays it on the screen.
- You can move around by holding your fingers & dragging the screen & zoom in & out by pinching your fingers.
- The app allows you to save maps offlin & manage them from an easy-to-acce list.
- It shows you the total walking time of the trip by bus/train.
- Turn by turn navigation shows you distance & estimated arrival time & gives you acess to alternate routes & features lane assistance.

Google map Android Manifest file :-

We have to add the permission along with the google map API key in android manifest.

Permission :-

1) ACCESS_FINE_LOCATION → GPS location.
2) ACCESS_COARSE_LOCATION → permission for network provider location.

Syntax :-

```
<user permission android:name="android:
permission:permission-type" />
<!---- Google API KEY ----->
<meta data
    android:name="package_path"
    android:value="GOOGLE API KEY"
/>
```

Customizing Google maps :-

1. Adding marker using addmarker() in google map Android manifest.

```
add marker(Google map Android Manifest
().position(0) title("My loc");
```

2. Enable / disable zoom
google map. set uisitthings(). set zoom
geustures enabled (true);

3. To get current location → get my location

4. Zoon a particular area → map, move Camera
(CameraUpdate, up)

Test Cases :-

Sr. No.	Test case	Output	Expected o/p	Result
1	On Opening application & clicking main activity button	maps loads & shows devices current location	— " —	Success
2	Search "Pune" in search Edit Text	camera moves to the location of "pune" & red marker is placed	— " —	Success
3	on clicking the GPS icon	recenters the camera to device current location, shown with "blue" dot	— " —	Success

Conclusion :-

Thus, after successfully completing this assignment, students should be able to understand & implement mobile app to trace location.