Assignment 8.

Title : App which uses Google Maps & GPS for tracking location.

Problem Statement :
    Design a mobile app using Google Maps & GPS to track the location.

Objective :
    To implement a mobile app to track the location and understand the basis of Google Maps & GPS.

S/W & H/W Requirements :
1) Linux / Windows
2) JDK
3) Android Studio.
4) Google Maps API Key.
5) Keyboard.
6) Monitor
7) Mouse.

Theory :
    Google Maps is a web based service that provides detailed information about geographical regions and sites around the world.
    In addition to conventional road maps, it aerial & satellite views of many places. Google Maps is an incredebly easy app to use. the app automatically detects the current location & displays it.
    The app allows us to save maps offline and manage them from an easy to access list.
    Turn by Turn Navigation shows us distance & estimated arrival time and gives us access to alternative routes and features lane assistance.

**Google Maps Layout:**

```
<Fragment
    android:id = "@+id/maps"
    android:layout_width = "match_parent"
    android:layout_height = "match_parent"/>
```

**Ask Permissions:-**

ActivityCompat.requestPermissions (this, new String[]{Manifest.permission. ACCESS_FINE_LOCATION}, PackageManager.PERMISSION_GRANTED);

**Get LatLng of current position.**

LatLng latlng = new(LatLng(location.getLatitude(), location.getLogitude());

**Set the marker.**

nMap.addMarker(new MarkerOptions().position(latlng).title("Location"));

nMap.moveCamera (CameraUpdateFactory.newLatLng (latlng));

**Conclusion:**

Learnt about locations and GPS using android app. Tracking current location using Google Maps API key successfully implemented.