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Assignment 4

Title : Sensors for building smart applications.

Problem Statement : Sensors for building smart applications : use any sensors on device to add rich location & motion capabilities to your app. from GPS on network location & motion capabilities to your accelatation, gyroscope etc.

Theory :

The application 'Advanced GPS location finder' to identify hospital location & ATM location. It offers below services.

→ Retrieves user's current location.
→ Once user is near the location, location will be searching nearst places can be viewed.
→ User can edit / delete / update / enable / disable nearest places.

Moaule Description : Google Map & Searching location, UI, Database & Google places Search.

1. Google Map & Searching Location :

It displays google map on your device with options, google Map & Searching locations is the main module of this application.

2. Google places Search -

Google provides word wide Search options for google places by using google Search, to

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find each & every google map locations in world.

3. User Interface:
It is important thing in android applications. UI here is designed by using Android XML for user interfaces & easy to handle application, many of the user interface designs are used in this applications.

4. SQLite Database: It search location details in android for feature Reference.

* Motion Sensors in Android Studio:
Sensor's architecture vary by sensor type.
→ Gravity, linear acceleration, rotation vector, counter, step are either S/W or H/W based.
→ Accelerometer & gyroscope sensors are always Hardware Based.

```
SensorManager = (SensorManager) getSystemService ( context,
                                        SENSOR_SERVICE);
Sensor = SensorManager.getDefaultSensor( Sensor,
                                        TYPE_LINEAR_ACCELERATION);
```

Conclusion

In this ~~adjust~~ assignment I have learnt
- how to use location capabilities in Android.
- how to use motion sensors in Android.