**Lab# 12: Navigation**

**Objectives:**

The objective of this lab is to develop android applications which find location in a map, static and dynamic maps and navigation in maps.

**Outline of this lab:**

1. Finding locations in maps.
2. Static and Dynamic maps
3. Navigation in a map.

**Activity Outcomes**

At the end of this lab, the student will be able to develop Android Applications for location finding in dynamic and static maps and navigating in the map.

**Navigation in maps:**

The following program draws the path from the given source to destination in the dynamic map. Review the program. Using the coordinates of the source and destination, the application contacts the google-map webpage and gets the xml file which contains the navigation information to travel between the source to destination. Using the xml file the path is drawn in the local map.

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**Task 3:** Write program to draw the navigation path from KAU to the city of Madina Al Munawara.

**Threads:** In Honeycomb and later versions of Android, in order to run a network based task, you should use services (threads or AsyncTask). If in any case, you want to test the application before introducing the services, the following could be done.

StrictMode.ThreadPolicy policy = new StrictMode.ThreadPolicy.Builder().permitAll().build();

StrictMode.setThreadPolicy(policy);