



Assignment No. 02

Submitted By:

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BS (SE) Section: A

Submitted To:

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Dated: 09th June 2020

**Department of Computer Science,
IQRA National University, Peshawar Pakistan**

MAJOR SESSIONAL ASSIGNMENT

Deadline: 10- June -2020 (5 pm)

Submit document having following tasks

1. Draw detailed USECASE DIAGRAM of your FYP Project along with description
2. Draw detailed ACTIVITY DIAGRAMS of your FYP Project along with description
3. Draw detailed CLASS DIAGRAMS of your FYP Project along with description
4. Draw detailed SEQUENCE DIAGRAMS of your FYP Project along with description
5. Draw detailed STATE CHART DIAGRAM of your FYP Project along with description

People may have different work at different places. They may forget to keep track of all the work which is associated at different places. So we proposed a system where user will be reminded about his work at certain place where the work is associated with. This system tracks the user location with the help of GPS. System retrieves the user's current geographical coordinates, with the help of this system tracks user's current location. To use this system, user must register by filling up the details required by the system. User must enter the user id and password in order to login to the system. User must enter the task by specifying the location name and work at particular place. System will provide task id to the user. User can enter multiple tasks. After entering the task details user will get the map in which the task location will be circled and he will get to know the distance between his current location and the task location. Once the user clicks the start option user will get notification as he reaches near to the task location. Notification stops only when the user clicks the finish option in the system and system will not show the completed task. This application also works even when user does some other task in his mobile phone. System will continuously check the location of the user and gives notification to the user as user reaches task location. This system helps the user to set, reset, disable, edit and set duration of the alarms as he wishes. This system also helps to check the task location on the map how far he is from the current location.

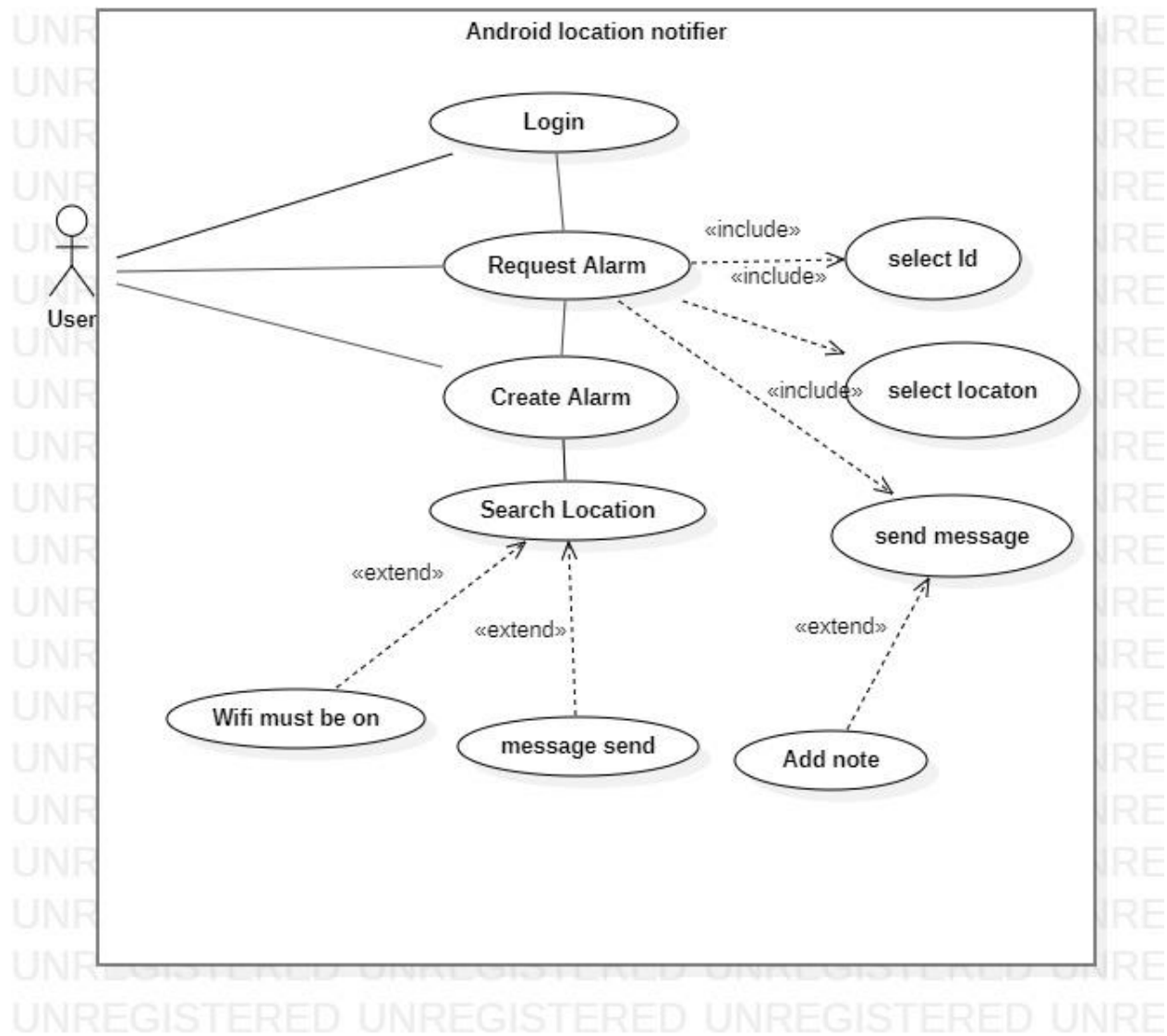
Advantages

- The android alarm can be associated with a reminder message.
- As the user reaches the destined location, the alarm rings and even the associated message flashes on your mobile screen.
- The user may set, reset, disable, edit and set duration of the alarms as he wishes.
- User may view the destined locations on a map to check how far he is from the desired location.

Disadvantages

- User can use this application only with android mobile phone.
- User must start the task by clicking start option. if user forget to do so, system won't provide him with the notification

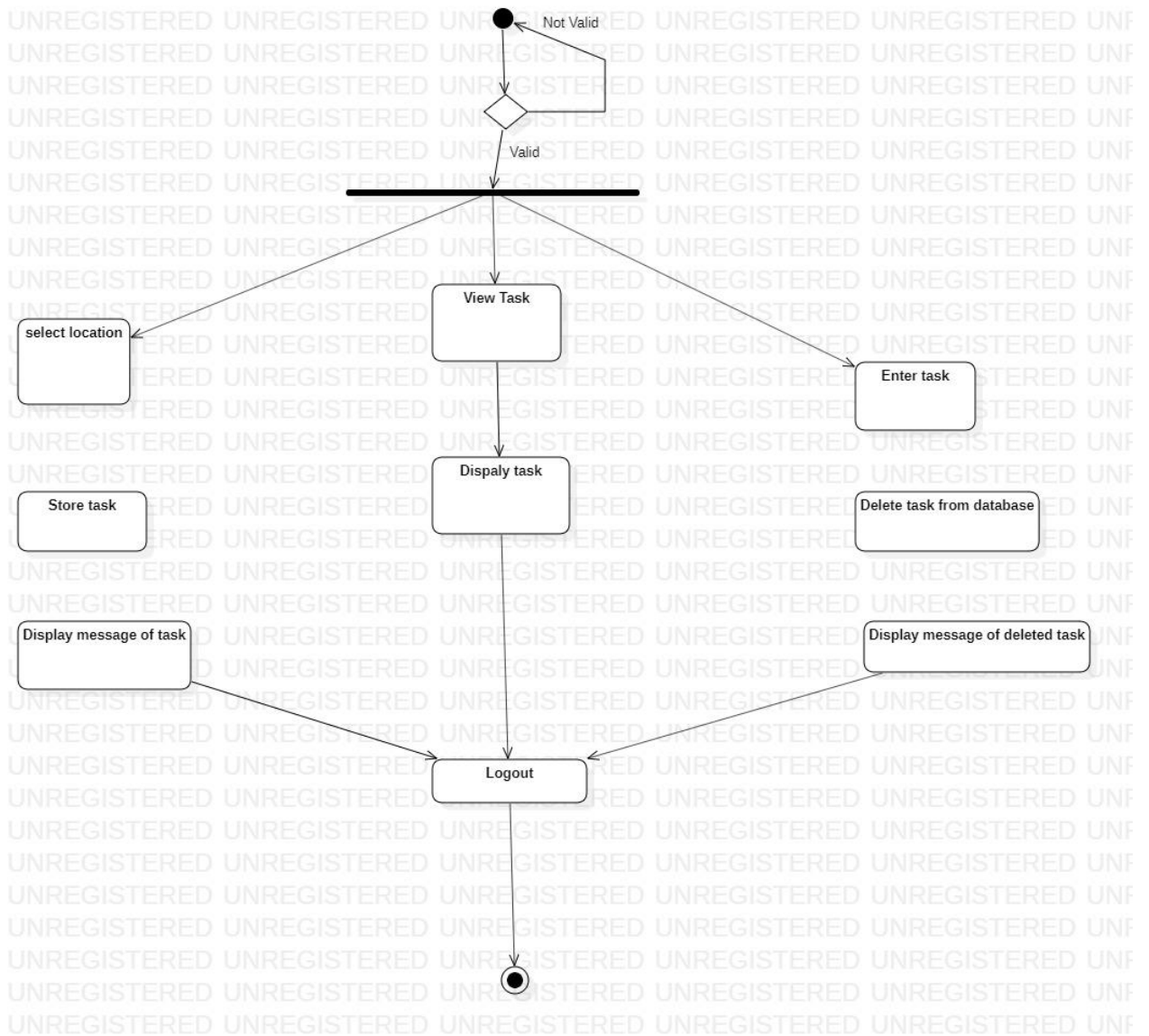
USE CASE DIAGRAM:



EXPLANATION:

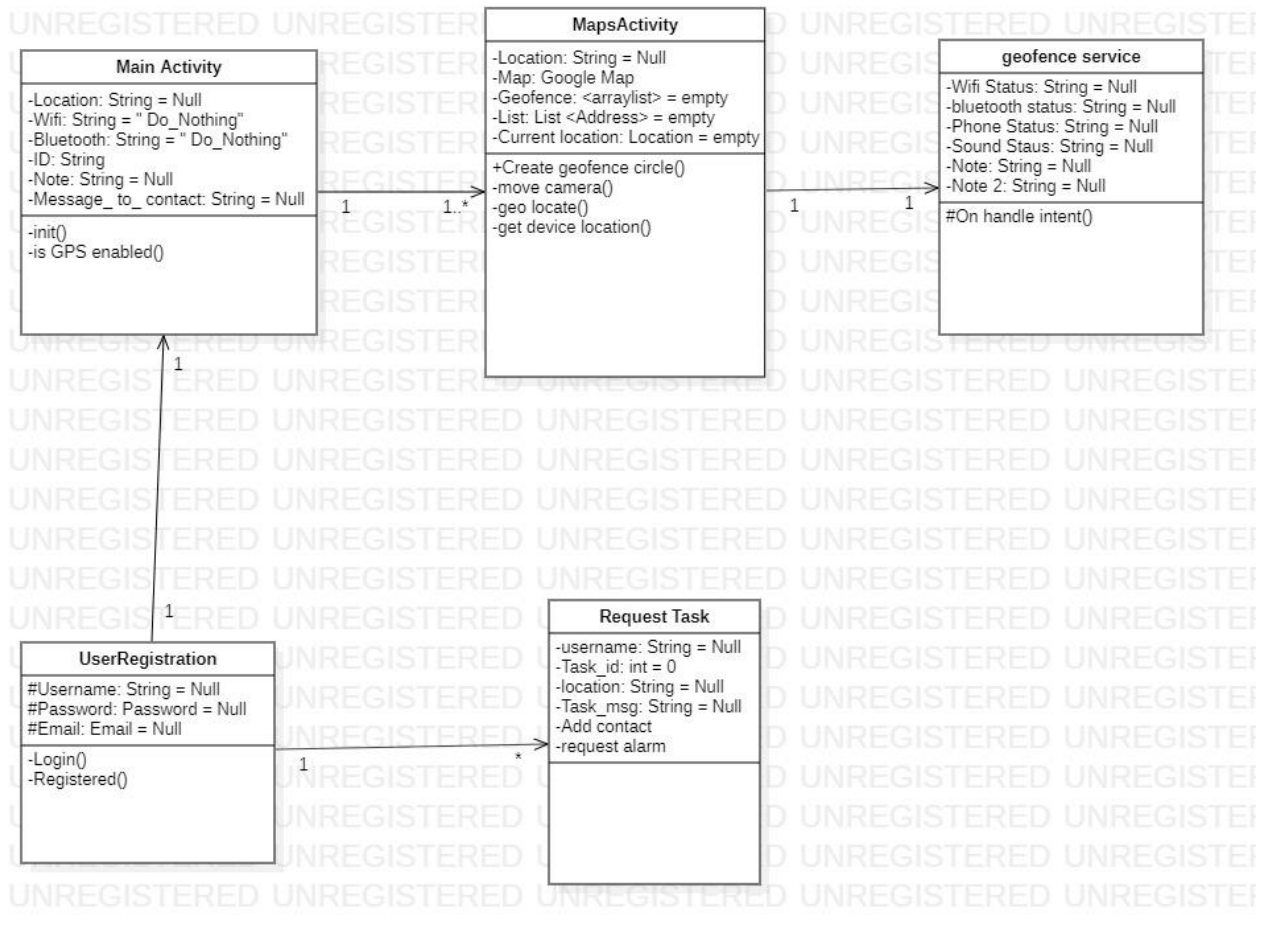
- User can login with username or password
- User can request a task from one of his id's in the application. User needs to enter the location name from where he or she wants his task to be done and a note about what task he or she wants from that location.

ACTIVITY DIAGRAM:



EXPLANATION: After logging in user can either set a task for himself, by selecting a location, adding a note and id for task completion message. User can also set a number of additional functionality to the location such as to turn wifi on or off.

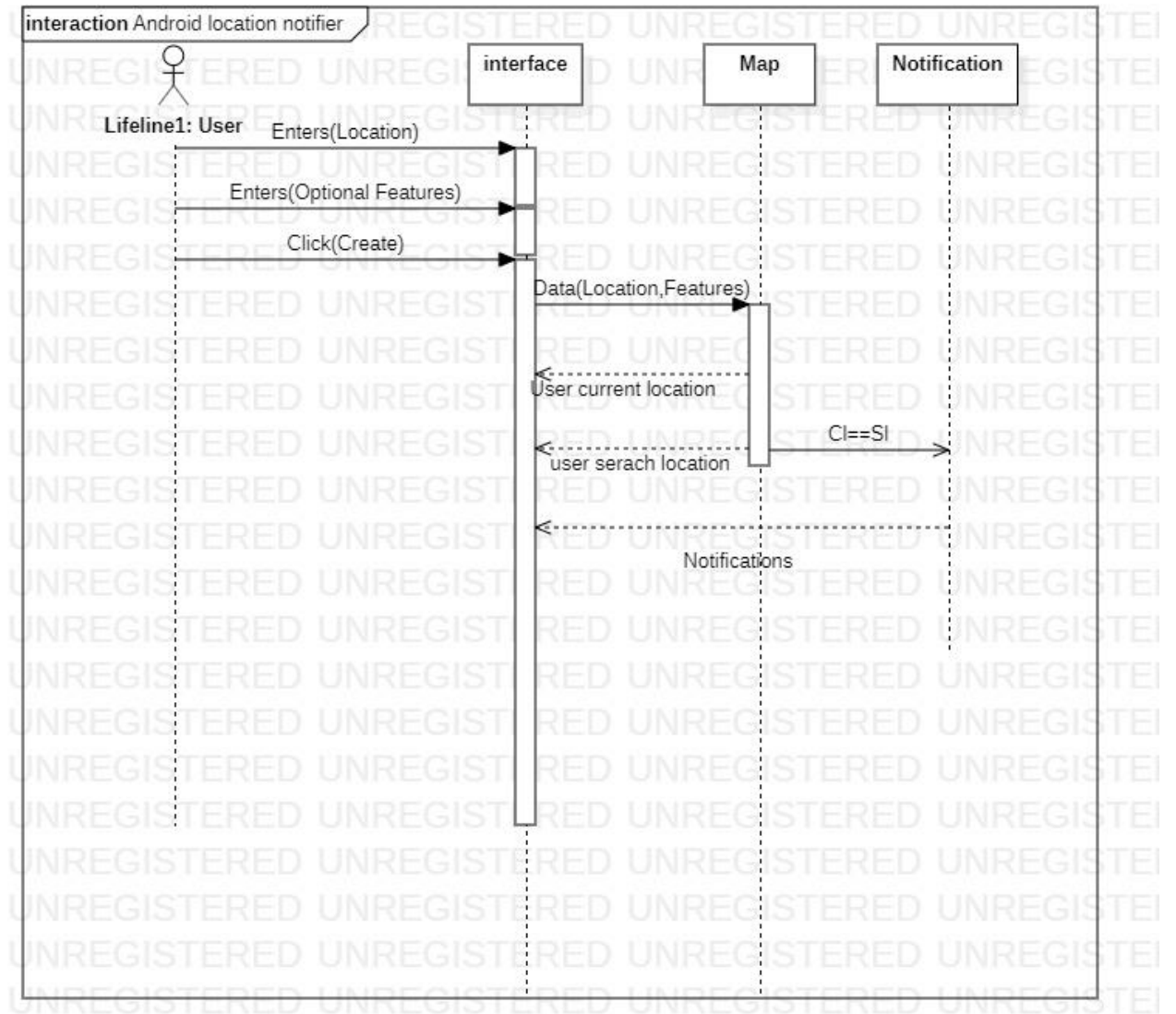
CLASS DIAGRAM:



EXPLANATION: Alnot.l the code for registration and login is in user registration class, user will enter his email and password, and this will be checked by the login function and see if it exists in the database or not. Similarly the registered function will add things user entered into the database.

Main activity class checks if device GPS is enabled and request the user to enable it if its not. Then user need to enter a location name and extra functionality and clicks create. All of this data is forwarded to Maps Activity class which gets the device current location and build the circle on the searched location and moves the camera to the searched location. Now the class that checks whether or not the user has enter the Geo-Fence is checked by the Geo-Fence service class. If user has entered then it performs the additional functionality that the user has selected as well as giving the notification.

SEQUENCE DIAGRAM:



EXPLANATION: The sequence diagram explains the functionality of the application which is a location alarm/notification.

User enters a location, along with optional feature, the location is searched in google database and circle is displayed on the searched location on google maps as well as the user current location. Once user enters the circle (current location is near/equal to searched location) a notification is displayed to the user. Which user can dismiss normally or by selecting task completed.

cl= Current Location

sl= Searched Location.

STATE CHART DIAGRAM:

