

Assignment 2

Alarm Application

1. Use fragments to create the UI
 - a. A time picker to set the INPUT_TIME (in hours and minutes)
 - b. Button to start a service
 - c. Button to stop a service
2. Service:
 - a. On click of start service button.
 - b. Service continuously (interval of 10 seconds) checks the current time
 - c. When INPUT_TIME matches current time, music starts ringing. Show toast and log messages. Ringing continues for 10 seconds.
Music can be phone ringtone or any other hardcoded music.
 - d. Service automatically destroyed when ringing stops. Toast and log message to show "service stopped"
 - e. On click of stop service button, service should stop. If music was ringing, it should stop immediately.
 - f. Whenever service starts/stops appropriate toast and log message
 - g. The service will be a "started service" not "bound service"
 - h. The service should work even when the app is minimised.
3. Broadcast receiver:
 - a. Battery low, incoming call, power connected, battery okay
If any two of these above broadcasts are received, service should stop, and ringing should stop.
4. Bonus: Setting multiple (at least 2) alarms. UI to show list of alarm timings. If you are attempting this, you do not need to stop service when the ringing of the alarm stops (that is, 2.d. will not be applicable).

Rubric (15+2 bonus):

1. 2 marks for use of fragment, time picker
2. 1 mark for start service, and appropriate toast and log messages
3. 1 mark for stop service, and appropriate toast and log messages
4. 1 mark for alarm starting (only toast and log message) at the correct time, when the app is open on screen.
5. 2 marks for ringing(sound) of alarm and stopping after 10 seconds automatically.
6. 1 mark: In 1 minute (60 seconds) the alarm should ring only once, for a duration of 10 seconds.
7. 2 marks for service working when the app is minimised.
8. 2 marks for broadcast receiver (1 mark for each receiver) and associated stopping of service.
9. 2 marks for application does not crash, runs smoothly.
10. 1 marks viva on related topics.
11. 2 marks bonus.