

Project 5: Services, broadcast receivers, notifications

Grading:

- 20% - Use service to add and subtract eggs correctly
- 20% - Notifications correct
- 20% - Broadcast Receiver correct
- 20% - 'Subtract 1 Egg' button behaves correctly
- 20% - Everything else correct

I will test this application on a Nexus 7 running API 26.

Gradle:

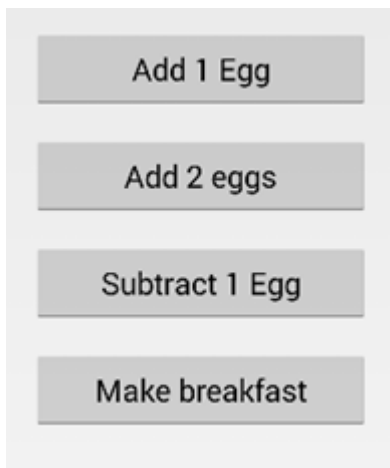
Please use the following gradle settings

```
compileSdkVersion 28  
targetSdkVersion 25
```

Description:

UI

Please create an activity that has 4 buttons;



Adding or subtracting eggs will invoke code that broadcast a message with the number of eggs to add (1,2 and -1 respectively. Notice that subtracting 1 is the same as adding a -1)

If you have no eggs available the Subtract 1 Egg button must be disabled (that is visible but grayed out)!

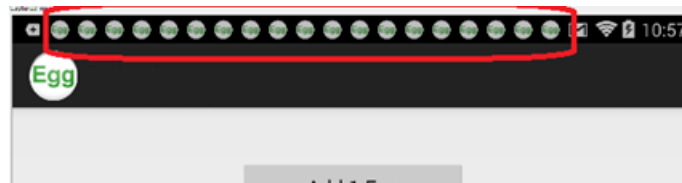
Clicking the Make breakfast button will invoke code that broadcast a message to make breakfast.

Broadcast Receiver (receives messages from UI)

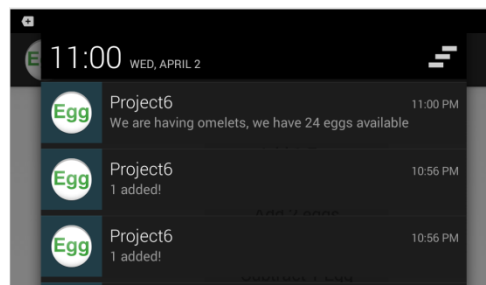
Please create a broadcast receiver whose purpose is to receive a broadcast intent that contains the number of eggs to add or to make breakfast. This receiver invokes a service with egg count information or with instructions to make breakfast.

Service

Please create a **service** that will track eggs and announce what's for breakfast. The service needs some sort of long term storage to keep track of the egg count. This means that the egg count must persist even if the application shuts down. The service is the only entity that will track eggs. Whenever eggs are added, the service must post a notification to the notification **describing the number of eggs available**. One notification will appear per button click (see circled in red below).



When you open the notification drawer (swipe down from top of device) you see the complete notification list;



The service will also respond to “Make Breakfast” commands by executing the following algorithm;

If 6 or more eggs available, it will subtract 6 from the total, store the new total and post a notification with verbiage similar to ‘We are having omelets, we have x eggs available.’ Where x is the number of eggs available after 6 are subtracted.

If less than 6, it will post a notification with verbiage similar to ‘We are having gruel, we have x eggs available.’

The number of eggs may not go negative. The service must close after it has finished its work, meaning after any add or Make Breakfast operation.