Tutorial 5

Battery, Broadcast Receiver, SharedPreferences

IS3261

Due date: 4th Oct 2018 (Thursday) 2359 hrs

Semester 1, AY18/19, School of Computing, National University of Singapore

---

IMPORTANT:

For this tutorial, you are supposed to submit your project file to IVLE.

Instruction for submission:

- *Submit your project in a **single zip file** to IVLE. Name your zip file using the following convention:*

  StudentNumber_yourName_Tut#.zip

  For example, if your student number is A1234567B, and your name is Chow Yuen Fatt, for this tutorial, your file name should be A1234567B_ChowYuenFatt_Tut5.zip

---

Battery, Broadcast Receivers, SharedPreferences

1. **Introduction**

   This tutorial will let you exercise the following:
   - use SharedPreferences
   - check battery status
   - use Broadcast Receivers

2. Requirements

Create a project with the Launching Activity that looks like Fig.1(a).

When the button "SAVE TIME STAMP AND BATTERY STATUS" is pressed, the following processes happened:

- Battery status is checked
- Get the time stamp in seconds (note: **minSdkVersion is 21**)
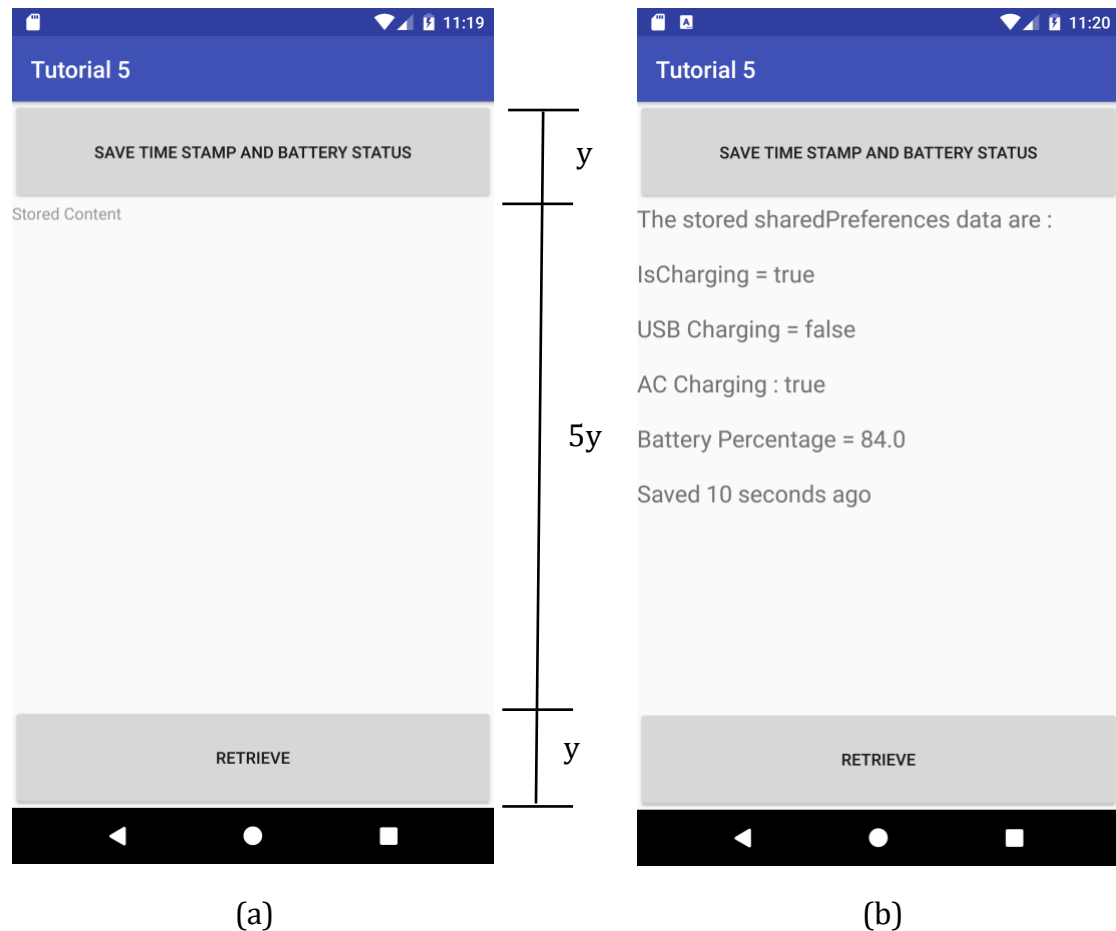- Save the time stamp and battery status using SharedPreferences

(a)   (b)

Fig.1 (a) The Launching Activity. "Stored Content" is shown as a hint. Pressing the "SAVE TIME STAMP AND BATTERY STATUS" button will get the time stamp, query the battery status, and store them using SharedPreferences. (b) After pressing the "RETRIEVE" button, the SharedPreferences will be read and the battery status displayed along with information on when the batter was saved (i.e. how many seconds ago was it saved).

When the Button "RETRIEVE" is pressed, the stored data in SharedPreferences are read. The status of the battery and the time lag between saving and retrieving the SharedPreferences will be displayed (Fig.1(b)).