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| American University of SharjahCollege of Engineering Dept of Computer Science & Engg  P. O. Box 26666  Sharjah, UAE |  | Instructors: Dr. Tamer [Shanableh](javascript:detailw('detail.asp?ID=@00010457')) **Lab Instructor:** Ms. Praveena Kolli  **Office** EB2-126  **Phone**: 971-6-5152352  **e-mail**: [pkolli@aus.edu](mailto:pkolli@aus.edu)  **Semester**: Spring 2022 |

**CMP354L -** [**Mobile Application Development**](https://banner.aus.edu/axp3b21h/owa/bwckschd.p_disp_detail_sched?term_in=201410&crn_in=11136)

**Lab8**

**Topics:**

* Foreground Service
* Notifications
* Broadcast Receiver

**Exercise 1:**

Update Lab6 AirBus app with services and application

1. Include a **foreground** services to the app.
2. A notification will appear if there is any update.

**Note:** Please note that AirBus updates are not in short time intervals unlike newsreader app. So, to test the notification, replace the if-statement in the service that compares the feed milliseconds with “if (true)”.

Get the screenshot of both the notifications, one for foreground service that never gets cleared in the notification bar and other one for updated feed.

1. Add a BroadcastReceiver to the app that displays a message in logcat when phone starts. Also, start the service from Broadcast Receiver.

**Note**: On restarting the emulator if the broadcast does not work, then follow these steps (on your phone or emulator):

1. Go to settings
2. Select Apps
3. Locate your app
4. Click on Battery
5. Click on "Unrestricted"

Submit: java codes, manifest file, screenshots of the running app and logcat messages and APK.