

CPRE 388 – Embedded Systems II: Mobile Platforms
FALL 2017, HOMEWORK 5
100 Points

Date Assigned – Nov 6, 2017

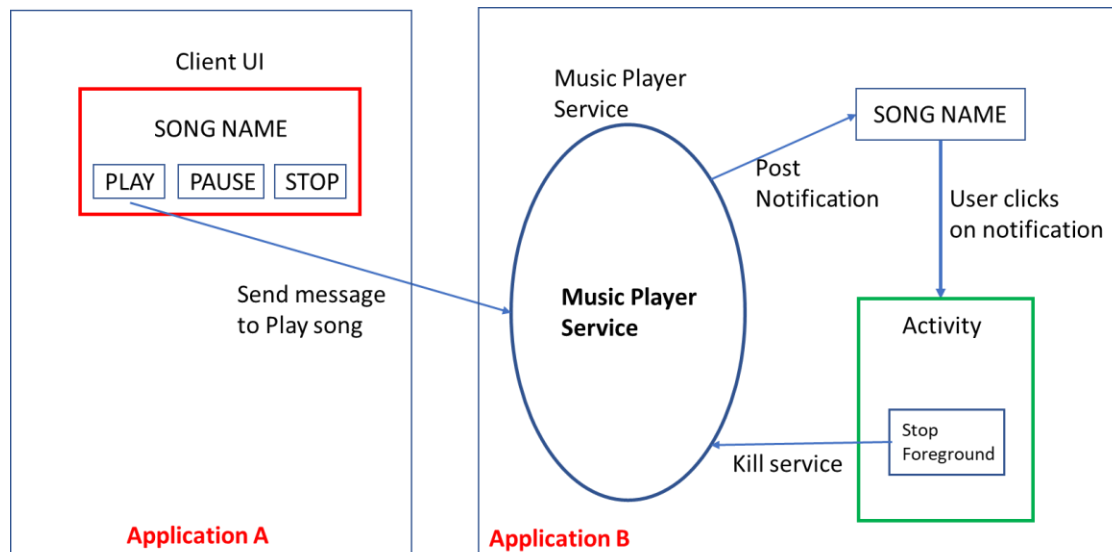
Date Due – Nov 27, 2017, 11.00 PM

Submission – Through Blackboard ONLY as typed WORD or PDF for theory questions. Please write in your own words if you use one of the resources below. Do not cut and paste from any website or pdf document. Upload zipped project folder for coding exercise. Individual work only. Do not share code.

The below are only basic specifications. You are free to improve the app with creative additions.

1. You will design music player using a client-server model of bound service.
 - a. The music player object should be created (instantiated) in a service component and started as a foreground service. Remember to use a worker thread to play the song so that UI thread is not blocked.
 - b. Post a notification with the song name. Use a pending intent with the notification to invoke an activity which allows the user to remove the music player service from the foreground and stop the service.
 - c. Design a client UI (activity in another application) for connecting to the music player service and playing a song file.

The figure below shows the interactions between the various components.



References

<https://developer.android.com/guide/components/services.html>
<https://developer.android.com/guide/components/bound-services.html>
<https://developer.android.com/guide/topics/media/mediaplayer.html>