



Homework 5, Distributed Applications Using Android

Network Programming, ID1212

1 Goal

- You can design, develop and deploy an Android app using the Android SDK.
- You can use Android SDK and IDE development tools.

2 Grading

The grading is as follows:

Not accepted Your work has not been accepted, and you have no score.

0 points Your work has been accepted.

1 point Your work has been accepted before or on due date.

2 points Your work has been accepted before or on due date. Also, it has an acceptable layered architecture and is well designed. This means it follows the guidelines of the lecture on architecture, and of the programming examples on the course web.

3 Auto-Generated Code and Copying

You must be able to explain and motivate every single part of your code. You are *not* allowed to copy entire files or classes from the example programs on the course web, even if you understand it and/or change it. However, you are allowed to write code which is very similar to the example programs on the course web. You are also allowed to use GUI builders and other tools that generate code.

4 Task, A Distributed Application Using The Android SDK

You shall develop a distributed application using the Android SDK, you may choose any scenario for the application. A suggestion is to choose one of the problems from homework one, for example the Hangman game.



Requirements on Your Program

All of the following requirements must be met in order for your solution to be accepted.

- Some part of the application (e.g. clients) must run on Android devices or emulators of such devices. Some part (e.g. a server) may, but is not required to, execute on a computer connected to the Internet. There must be some communication from/to the nodes of the application running on Android devices.
- The Android app must have a responsive user interface, which means it must be multithreaded. The user must be able to give commands, for example to quit the program, even if the client is waiting for a message from the server.
- The Android app must have a GUI for user interaction developed using UI Views in Android.
- The server, if there is a server, must be able to handle multiple clients playing concurrently, which means it must be multithreaded.
- The user interface must be informative. The current state of the program must be clear to the user, and the user must understand what to do next.

What is NOT Required of Your Program

Below is an explanation of things that do not affect your score.

- There is no requirement on the complexity of the GUI.
- You are free to choose how the Android app communicates, but you are strongly recommended to use sockets.