CS426- Mobile Device Application Development

Midterm Project

Class: APCS 2017

Date: June 14-17, 2019 (72 hours)

This is ***the midterm project*** of the course CS426 – Mobile Device Application Development. Students have ***72 hours*** (*from 12:00pm June 14, 2019 to 12:00pm (noon) June 17, 2018*) to finish this project.

- If any student has personal issues during this project, the student should notify the lecturer for his permission to extend the official deadline (only for that student).

Submission Guidelines:

- Submit your own project to Dropbox:
  - Dropbox link: https://www.dropbox.com/request/3ZQf4LJboApYuyRfqMh8
  - This link will be switched off at 12:00pm (noon) June 19, 2019.
- If you use gitlab to manage your source code:
  - Adding TA's account @dtle to your gitlab repository with "Reporter" role permission.
- Your project should include the following folders:
  - **Source**: all files of the source code of your project (including all required resources, extra libraries, toolkits, etc.)
  - **Document**: report on your project
  - **Demo:** demonstration video clips (if any).
  - **Misc:** other related materials (if any).
- You should compress all files of your solution into a single or multi-volume archive (*StudentID1-StudentID2*.*) and submit your solution online.
  - Resubmission: When you want to resubmit your project, you can add a suffix ("ver2" or "ver3") in your project filename.
- ***Late submission:***
  - If you submit your project during the following two days, your mark will be reduced by a further 10 percentage points per day.

Project Description

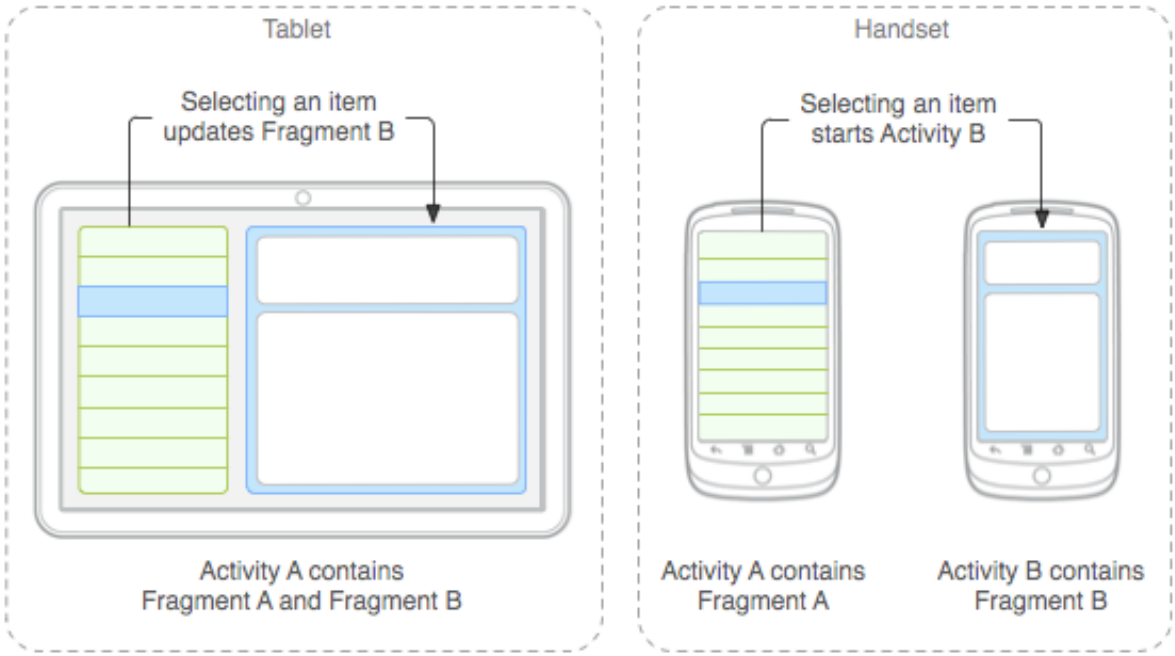
In this project, in spite of having the same topic in midterm project, each student can create his or her own application with different meanings and functions depending on his or her choice. Professor expects students to think carefully to choose your own specific subject which is suitable for your abilities. Especially, your subject must have real-life meaning which may come from your observation and awareness of problems that you interest in your daily life.

These functions mentioned below are only suggestions for students. Each student can propose your own functions that you think they are important and suitable for your application. Real functions are not limited in the suggestions list below, and students are not compelled to execute all these suggested functions.

Midterm project evaluation result is based on your attempt on your work (idea, technique, technology, interface…). Therefore, Professor hopes that students do not feel stressful when doing midterm project, but show all your abilities and knowledge that you learn and are able to implement to develop your application through this project. Each student should consider this project to be a challenge to train yourself and experience a real-life small-scale project.

The application should meet the following criteria:

1) Master/Detail Flow Activity (25 points): Create an Activity, which initially loads the RecyclerView fragment. When a row is clicked, your app should behave like the following:
   - On phones with a small screen, the fragment showing the details of the item will be loaded into the same activity, replacing the RecyclerView fragment. When the “back” button of the phone is clicked, the RecyclerView fragment will come back.
   - On tablets with a large screen or phones landscape mode, the fragment showing the details of the item will be loaded into the same activity, but both the RecyclerView fragment and the detail fragment will be shown side by side.



2) Connecting to the internet (25 points):
   - Getting data from the internet via public api (you can create your own api or simply host a json file online)
   - Caching the latest version of your data in case of no internet connection.
   - Loading and caching image from the internet.
3) Your application functions (50 points): There is no specific requirement for the purpose of the application. Here are some suggestion:
   - Adding or removing items from a list
   - Storing your application setting
   - Using maps
   - Make a phone call
   - Building customizable interface
   - Intelligent-processing algorithm on application
   - Support augmented reality when finding a place/location, guiding
   - Using sound in communicating; text-to-speech, speech-to-text
   - Allow user to share information, images, experience… on Facebook
   - Build a common server to supply services for application
   - Allow to share between users/group of users
4) The quality of your UI will be **bonus** in this project (+10 points).

Students actively choose functions, techniques, methods, or any solutions to build your own application. Please demonstrate your best knowledge and techniques that you learn, and your passion on developing your own applications.