Design Document of E-Learning System

Student ID: 17301088

Name: 包天活

In assignment 1, I have completed basic layouts, navigation and functions of the E-Learning System App.

1. Layout Design

Based on the requirements, the app has some basic functionalities: looking in the list of courses and the detail of course, signing up, and searching the learning materials. In addition, I decide to add a home layout to showing some news, advertisements and personal information (include teachers and students) into the app when I observed the other learning app like MOOC.

So, I divide the app into three main part: home layout, course information layout and person layout. I use the bottom navigation to manage the navigation in general.
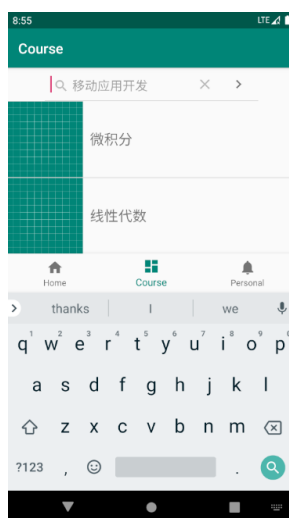
1) Home layout

This is the home layout, which is the entre of the app. It consists of several image to show the hot news and advertisements.

2) Course list layout

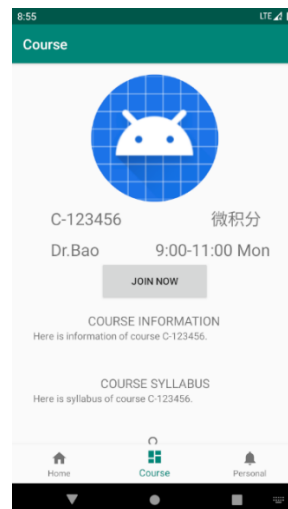This is the course list layout, which is the main part of the app.

● Search view

To implement searching learning materials, I create a class: Course to store the information of each course, and use array list to store all the courses. When the user to search some things, the app invoking the course list to get the courses' information to be searched and return the results.

● List view

The list view shows the courses' basic information, include picture and name. It allows the users to click each item(course) to look in the detail
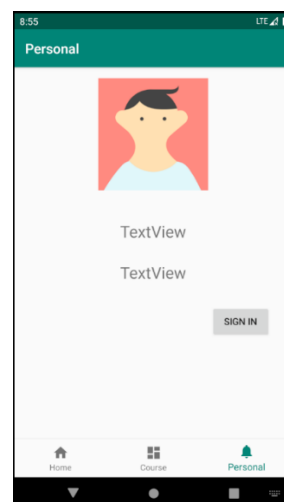
information of the course.

3) Course detail layout

This is course detail layout, which shows all the information of the course, include course's picture, id, name, teacher, calendar, more information and syllabus.

I add a "JOIN NEW" button to let the user to join the course to start the study and get materials of learning materials.
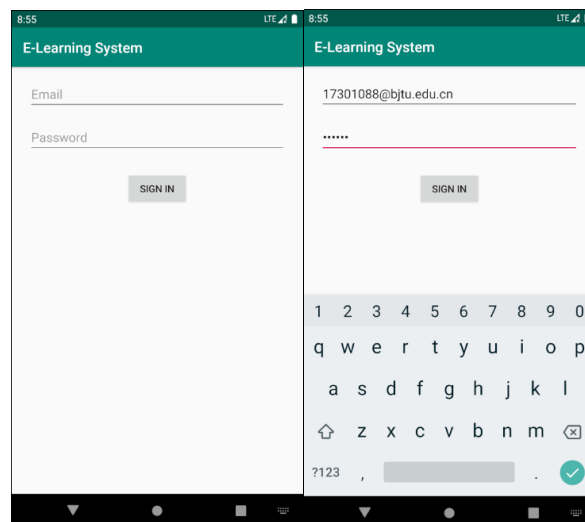
4) Person layout

This is person layout, which show user's information. In the app, I design two different users, teacher and student and the person layout is for both of them.

The user doesn't need to login in firstly. A visitor, who hasn't sign up yet, also can look in the home layout and course layout to get information. But the user can't join a course or get learning materials without signing up.

The "SIGN IN" button is in the right of the bottom of the layout.

5) Login layout

This is login layout. When user click the "SIGN UP" button, the app navigates to this layout. It makes the user to input the account(email) and the password.

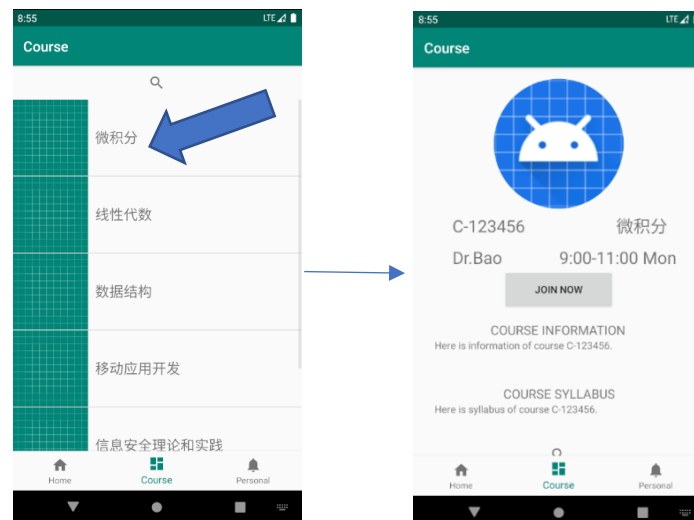If login in successfully, the app return to the home layout.

2. Navigation Design

● Bottom navigation bar

Bottom navigation bar is the main navigation component. The bottom navigation has three components, home layout, course layout and person layout. And there are some navigations in the different layout.

● From course list fragment to course's detail fragment

Course layout has course list fragment and course's detail fragment, and the course list fragment is showing firstly. When clicking the item, the app shows the course's detail information.

● Between main activity and login activity

The bottom navigation bar is in the main activity and the login function is designed in the login layout. In the person layout, user can click the "SIGN UP" button to go to the login layout. After successful login, the app goes back to the home layout.