Class Project: Android App Development
ITCS424 Wireless and Mobile Computing (2/2018)

Group members:

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Overview:

To calculate GPA for each student, the education department of the faculty has to sum up the multiplication of each grade of courses with their credit and then divided by the summation of credit of the courses enroll in the semester to get the GPA for that semester. Assume that there are 4 batches in the faculty, each batch has 200 students, there is a total of 800 students in the faculty that the education department has to calculate the GPA. Moreover, some students may enroll different courses from other students, some may enroll different amount of the courses, total credit of that semester of the student may differ from others, calculating mistake may occur.

The application that we want to create is a GPA calculator. To calculate the GPA for each student, first of all, each student has to sign in into their account to make the application know which score of whom will be shown. Students need to create an application account if they do not have yet. Then, they need to insert courses they have learned so far and their grade score to allow application has some values for calculating the GPA. Finally, the student who has signed in can manage the course lists and use a GPA calculator to calculate the GPA.

Objective:

1. To manage the course lists of the student.
2. To insert and/or remove the grade of each course
3. To calculate the GPA of the student

Application design:

1. Sign-in Page

   After the application is opened, the sign in page appears. There are 2 languages available for users to choose which language of the application they prefer. In order to move on thru the application, the user is required to sign in the account that he or she wants to access. If the user does not have an account yet, he or she has to sign up in order to use the application.

Sign-in Page (English-Thai)

2. Registration Page

      After the user tap "Register" button on the sign-in page, the application will pass to the registration page. In this page, users are required to enter their information such as their full name, username, password, email, phone number, and their program; either Bachelor Degree or Master in Cyber Security. Lastly, when users have typed all the required information, they have to tap "Register" button again to finish the registration process.

Registration Page (English-Thai)

3. Reset Password Page

      If the user has forgot the password for logging in to the account, he or she is not allowed to access the application. In order to access the application again, the user has to use the forget password feature that will send a link for reset password to the input email, which need to be the same email as the one use in registration process. Unless you are the account owner, your personal information will not be known by other people.
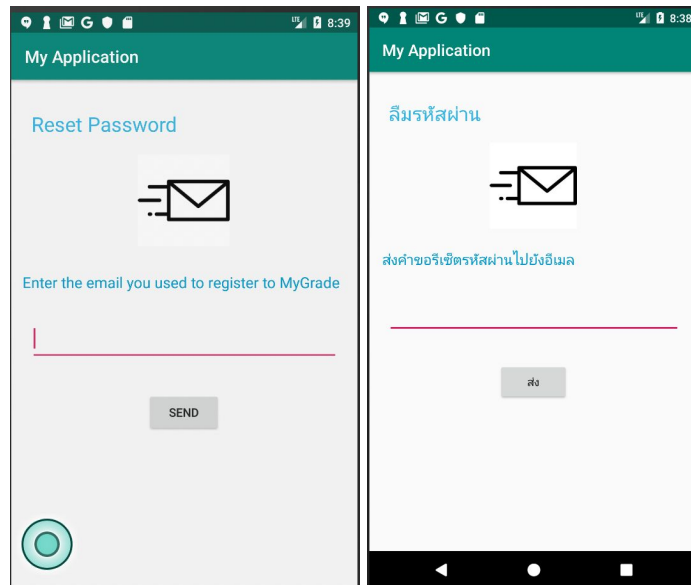
Reset Password Page in both language

System architecture:
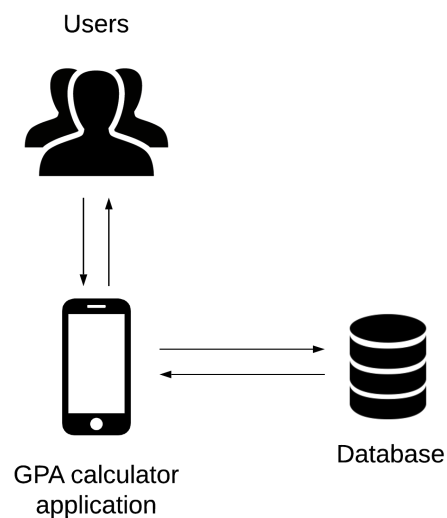
The system architecture of our group has three main parts including users, application, and database. Users are those people who is a student of the Faculty of Information and Communication Technology (ICT), Mahidol University; both Bachelor degree and Master degree in Cyber Security. The application that we create is a GPA calculator that will retrieve user's grades stored in the database, which was inputted by the user, calculate the grade, and show the result which is user's GPA. The database use for keep the various data such as user's name, user's identification number, user's registered course, user's grade, etc.
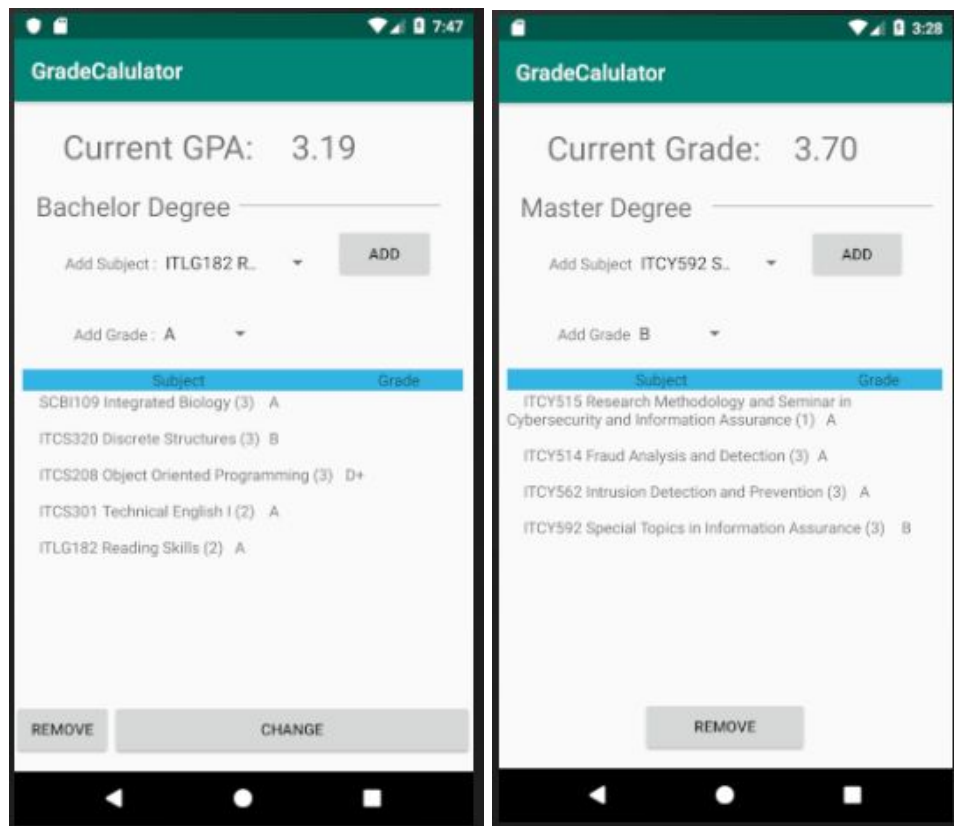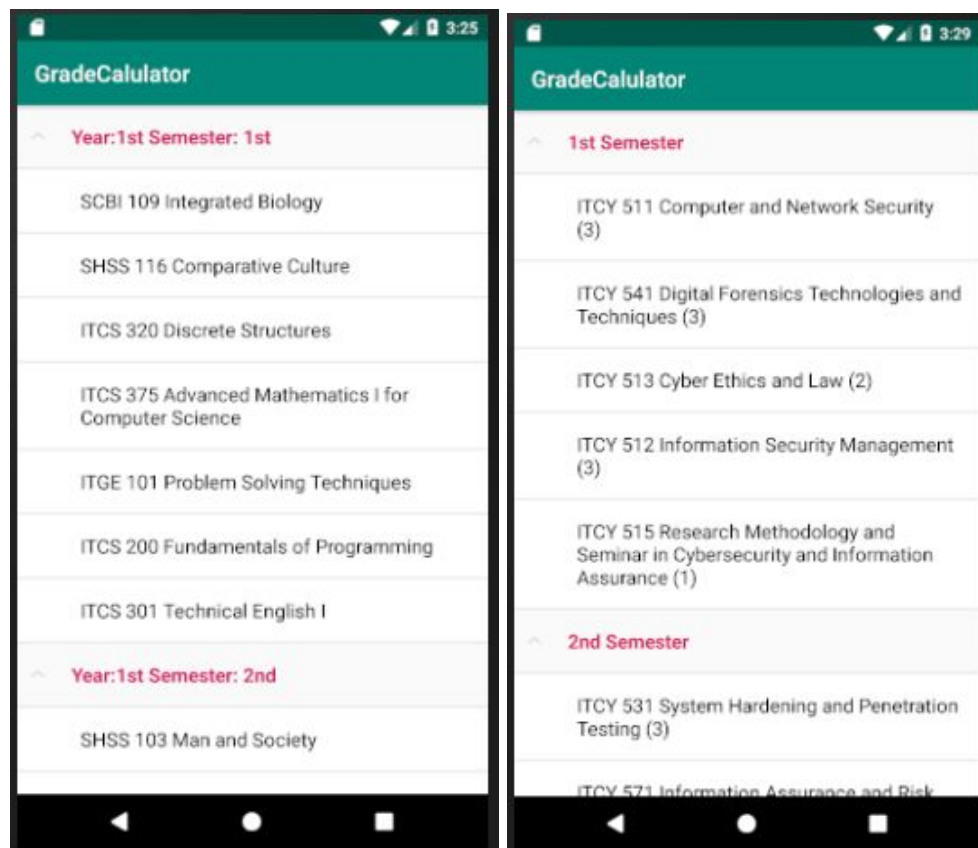
Screen Shot:
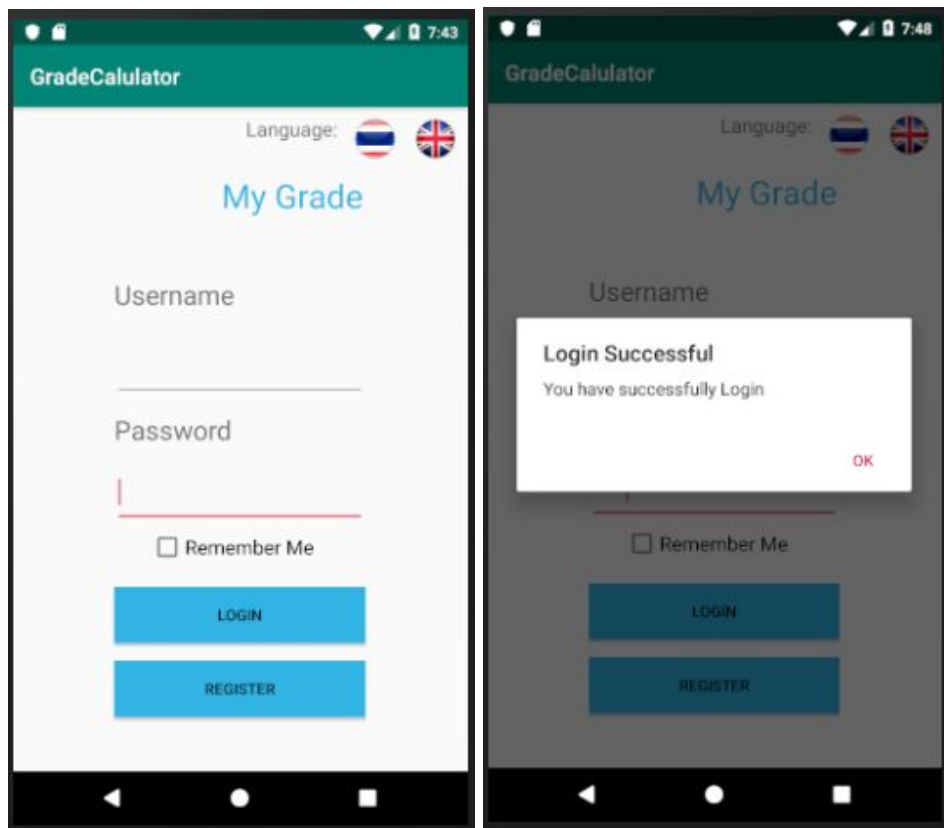
Sign-in Page
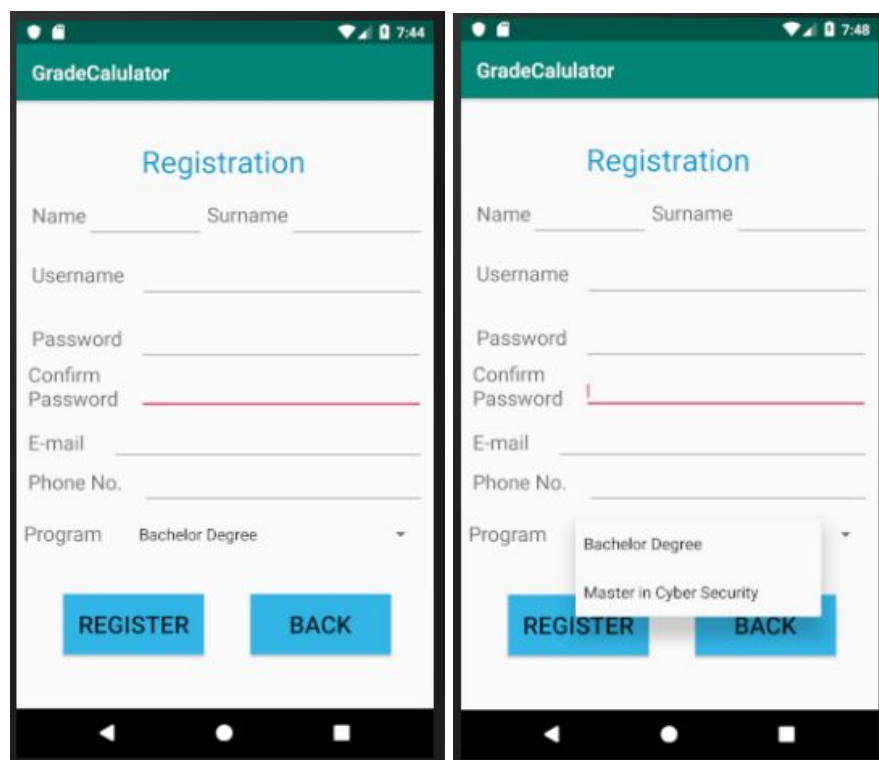
Registeration Page
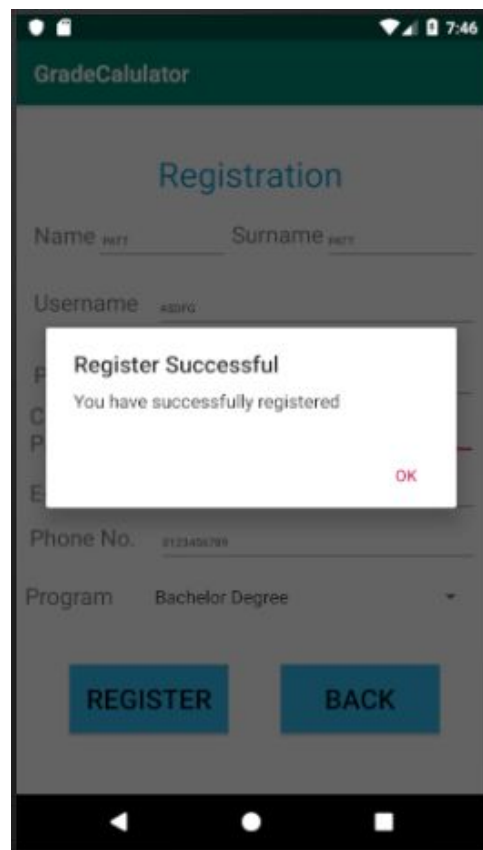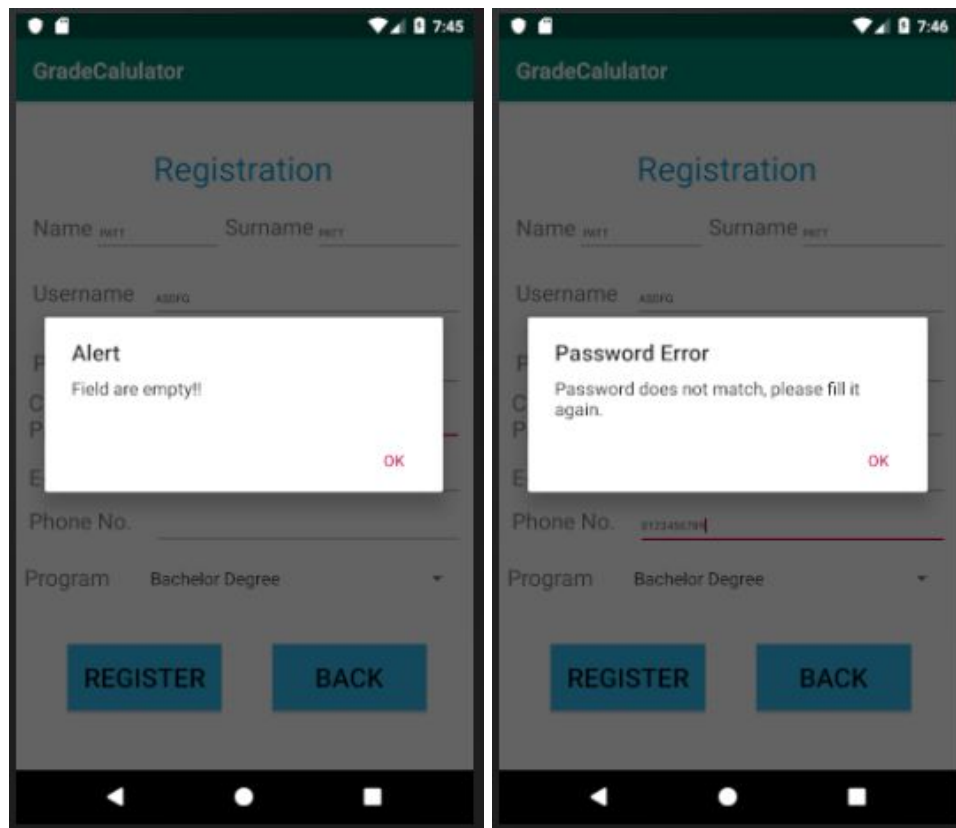
Dialog Notification

Grade Calculator Page(Bachelor Degree & Master Degree)

Subject List Page(Bachelor Degree & Master Degree)

Changed Language Page

Database Connection

In the database section, we decide to use SQLite for storing user's data. SQLite is a small database that store the data without using the server. Therefore, it is used in many program and installed on many portable device such as iphone and android for storing the data.

Username	Password	Email	Telephone No.	....
Nuwat	1234	Nuwat@hotmail.com	0123456789	....
Pasin	4321	Pasin@hotmail.com	0987654321	....
Wichayapat	5555	Wichayapat@hotmail.com	0789321456	....

As in our project, this is an example of the table created for the SQLite database consist of various attributes such as username, password, email, etc. After a new user register for the application, SQLite has stored the input data into the table.

Feature
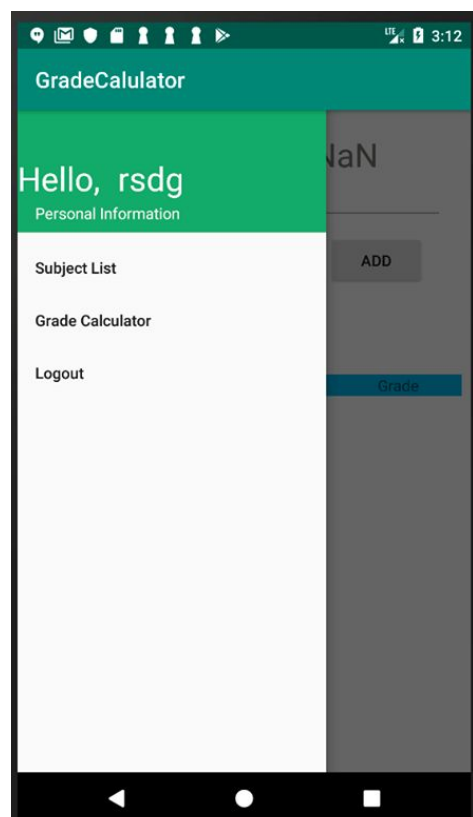
Nav Bar Feature

Snipper Feature
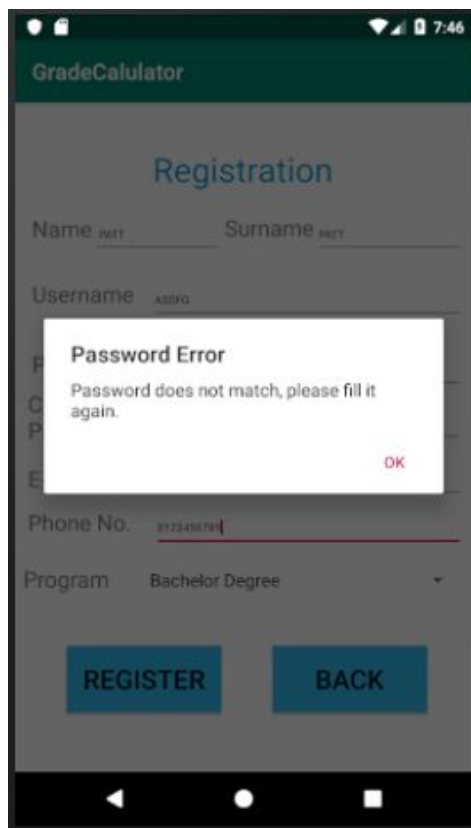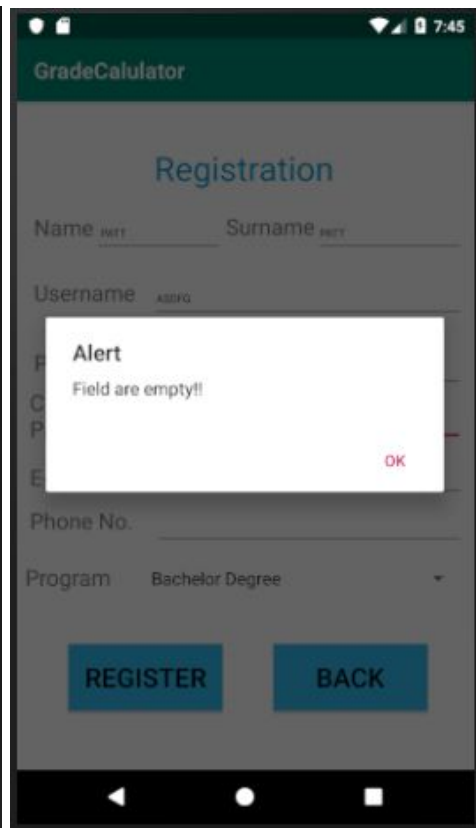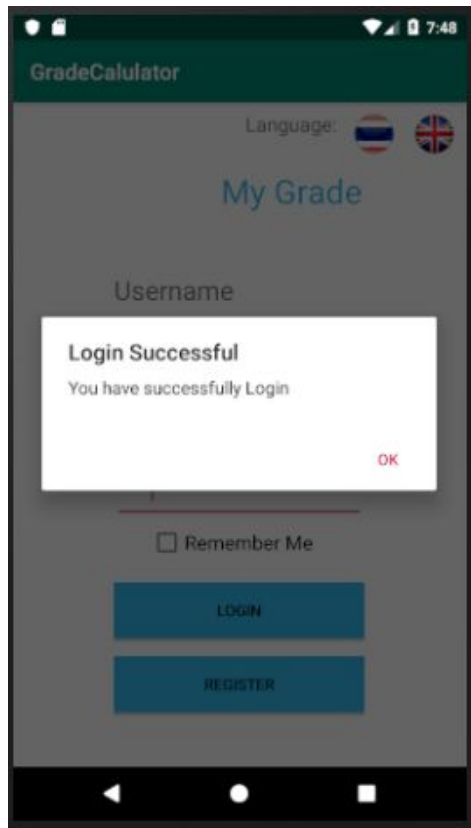

Change Language
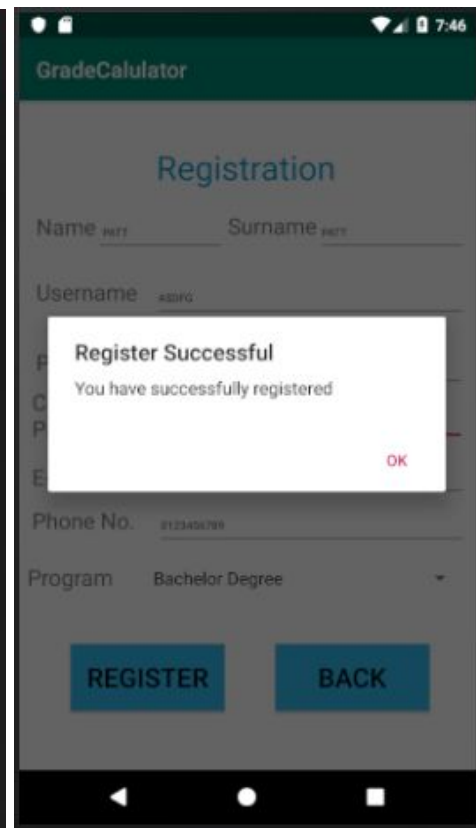
Dialog Notification Feature