

COP290 - Moodle Android App: Design Document

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1 Overall Design

Our overall design of the app would consist of three main activities. The first one would be the splash screen, which would be displayed for a fixed amount of time. The next activity is the main login page, where there are separate fields to login as a student or as a teacher. After the user logs in successfully, the main dashboard appears. It is designed differently for students and teachers, to give personalised experience.

As per the requirements of the assignment,

- Different layouts [3] have been made for tablet and mobile phone view for all the three activities.
- Different classes have been defined in separate files to maintain modularity in code.
- **Doxygen** has been implemented to create an HTML documentation of the application structure.
- Various resources, such as strings, images and styles, have been included in separate files.

2 User Interface

2.1 Splash Screen

The files `activity_msplash.xml` and `content_msplash.xml` define the layout of the splash screen. It consists of a big image that contains the logo and name of the application. The images for phone view and tab view have been included in `drawable` folder. An animation [1] has been applied on the app logo to make it grow and shrink. Below is the screen shot of the splash screen in tablet view. The layout for tab view is in `layout-sw590dp` folder. (This is automatically picked when smallest width exceeds 590 dp)

2.2 Design Of LoginPage Activity

- The layout of main login page has been defined by `activity_login_page.xml` and `content_login_page.xml` files in the `layout` folder.

The following are the screen shots of the main page on different orientations as well as screen sizes [2]:

2.3 DashBoard - Student

It appears when the user has been logged in successfully, as a student. Below is the screen shot of the dashboard as it appears for a student.

2.4 DashBoard - Teacher

It appears when the user has been logged in successfully, as a teacher. Below is the screen shot of the dashboard as it appears for a teacher.

3 Implementation Details

3.1 MSplash Class

This class contains the various auto-generated methods to initialize an activity.

A handler has been added to execute the method `Run()` of a runnable after the fixed time specified by a private variable, `splash_time`.

The `Run()` method creates a new Intent to start the main activity.

3.2 LoginPage Class

The `LoginPage` class handles the dynamics and events of the main login page. The following methods have been included other than the standard methods:

4 Future endeavours

- Keep local cache of changes done, at mobile level and sync them with the global server as soon as internet connectivity is supplied.

5 Source Code

The source code of the project is maintained in the following repository:

<https://github.com/aditi741997/Moodle-ANA.git>

References

- [1] Adding animations. http://www.tutorialspoint.com/android/android_animations.htm.
- [2] Adding figures in latex. <https://www.latex-tutorial.com/tutorials/beginners/latex-figures//>.
- [3] Supporting tab and phone view. <http://developer.android.com/training/multiscreen/screensizes.html>.