ECE 150/251 Assignment 1

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App description:

This app has two activities.

The first activity shows my name, an Android Developers picture and “Select Image” underneath the picture. If you click on the picture, you will get into the second activity.

The second activity shows a list of 4 brands and their names, when you click on one of them, there will be a line reading “You clicked No.? (Stands for 1 to 4) logo.” shows on the action bar, and then you will be brought back to the first activity. At this time, the Android Developers picture will be changed to the logo you just choose and the “Select Image” underneath the picture will be changed to the corresponding brand name.

Text questions:

1. package: To state a package. All the classes in a package are under a single namespace. This is a method to solve the problem of clashing of the class names by creating a unique identifier for every class. If you state a package, the compilation unit (the source-code file) is part of the library you name when writing "package LibraryName".

extends: To inherit an existing class that allows you to access designated members in the base class, add new members or change the behavior of the existing members.

implements: To make a class that tells how the interface works because an interface just produces a completely abstract class. The usage is similar to "extends".

public: It is used as an access specifier that says the following element can be accessed by everyone.

private: It is also used as an access specifier that says the following element only can be accessed by the creator of the type, inside methods of that type.

synchronized: It is used to prevent collisions over resources, if a synchronized method is called, that object is locked so that no other synchronized method of that object can be called until the first one finishes and releases the lock.

final: It means the data cannot be changed.

static: When something is static, it means that particular field or method is not tied to any particular object of that class. You can call a static method even if no objects are created.

Reference: Thinking in JAVA by B Eckel

2. Four types of resources:

Color State List Resource: Define a color resources that changes based on the View state, for example, a Button widget can be provided with different color during different states (pressed, focused or neither).

It should be saved in res/color/ and accessed from the R.color class.

Drawable Resources: Define various graphics with bitmaps or XML.

It should be saved in res/drawable/ and accessed from the R.drawable class.

Layout Resource: Define the layout architecture of the application user interface.

It should be saved in res/layout/ and accessed from the R.layout class.

String Resources: Define strings and their formatting and styling.

It should be saved in res/values/ and accessed from the R.string class.

Reference: Android Developers Website

To separate resource files from source files enables us to manage and maintain the application easily. For example, if I want to change one of the pictures in my app UI, all I need to do is changing the resource file instead of making changes in the source files, which is highly efficient.