Due: Feb 1 at 23:59
Points: 130
Objectives

Learn how to use Eclipse or Android Studio to create an Android app
Handle basic Activity lifecycle
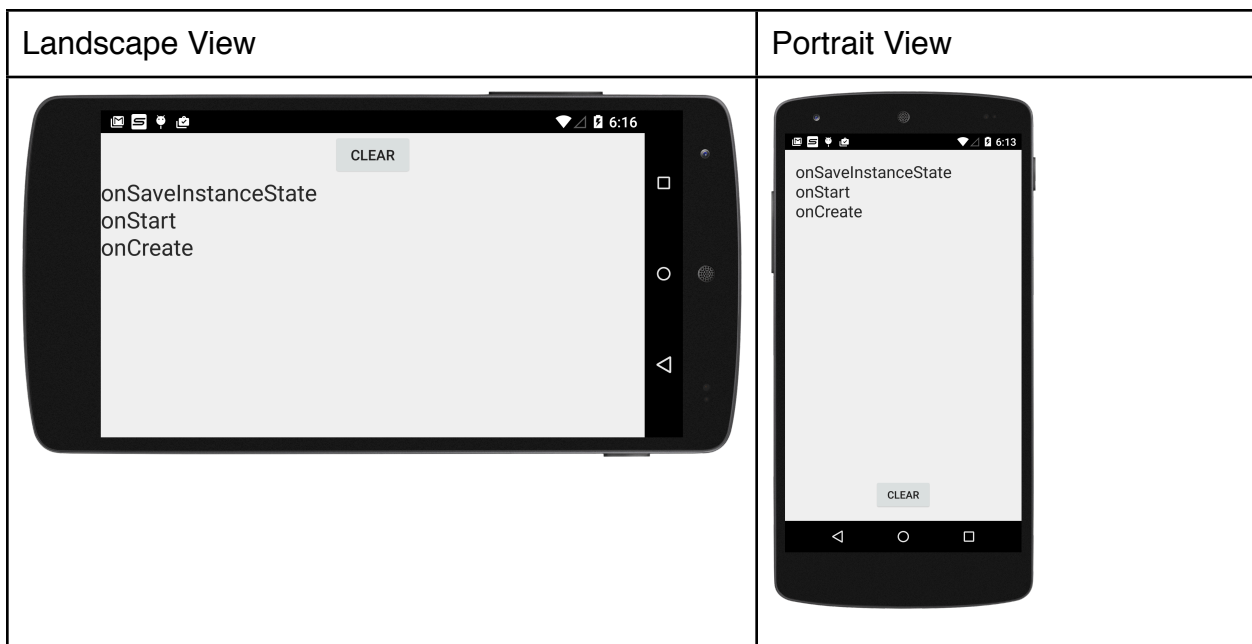Use basic GUI widgets
Handle Screen rotation

Life Cycle Events

You are going to create an app that logs the standard life cycle activity methods (onCreate, onRestart, onStart, onPause, onSaveInstanceState, onRestoreInstanceState and onResume) are called. Create an app with one activity and implement the methods onCreate, onRestart, onStart, on Pause, onSaveInstanceState, onRestoreInstanceState and onResume in the activity. Look up the methods in the documentation for their signatures. (Which ones require you call super?) Each time one of the method () is called you are to do two things:

1 Write the name of the method to the log (LogCat)

2 Append the name of the method as a new line of text at the end of a TextView in the interface of the app.

Create two layouts for the activity, one landscape and one portrait. In each layout you need a TextView and a button with the label "Clear". The TextView displays the methods that have been called in the app, one method per line. When the "Clear" button is pressed the text in the TextView is cleared. Note the change of location of the button between landscape and portrait view.

Landscape View	Portrait View
onSaveInstanceState onStart onCreate (CLEAR)	onSaveInstanceState onStart onCreate (CLEAR)

Each time one of the life cycle methods is called the name of the method should be added to the TextView and a statement added to the log indicating which method was called. When the device or emulator changes orientation the corresponding layout is to be used.

When you create your project set the minimum required SDK to API 15.

Issues

1. When you run your app and rotate the device/emulator are the method displayed in the TextView consistent with methods called in the log? If not what would you have to do to make them consistent?

Grading

The assignment will be graded as follows:

Points	Item
30	Two layouts, Each used in proper orientation
30	Clear Button works in both layouts
30	Correct values for methods displayed when rotate device
15	Logging methods
15	Non numeric text displayed on screen defined in string resource
5	Coding style

Points	Item
5	Answers to issue 1.

What to turn in

Add to your project a file called "ReadMe.txt". In this file add the answers to the one issue. Create a zip file of your entire android project. This can be done using Eclipse. Select the "Export …" option from "File" menu, then select "Archive File" option under "General". Please no rar files. If you are using Android Studio you need to use another program to zip your project directory. Turn in your assignment at: http://bismarck.sdsu.edu/CoursePortal. There is a link to that site in the assignment section of the course Blackboard site. You will need to create a password for the assignment site the first time you use it. Once you have logged on to the site select the assignments tab.