

**Due:** Feb 1 at 23:59

**Points:** 100

**Objectives**

Learn how to use Android Studio to create an Android app

Handle basic Activity lifecycle

Use basic GUI widgets

Handle Screen rotation

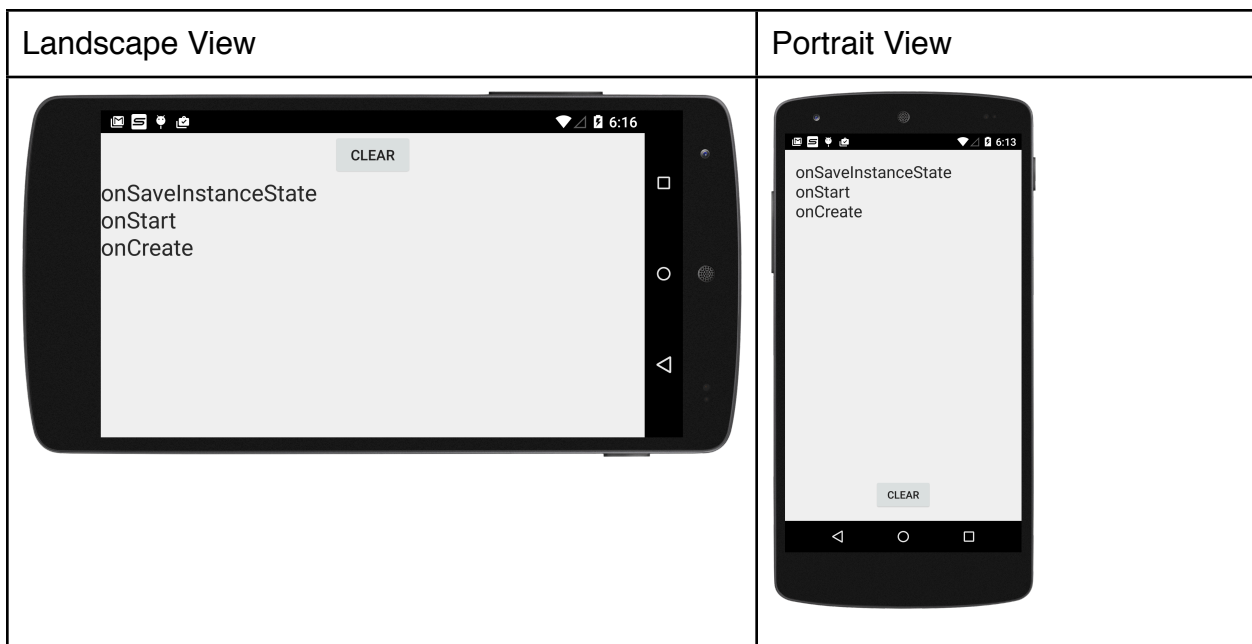
**Life Cycle Events**

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, onPause, 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.



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 16.

### 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 explain why.

### Grading

The assignment will be graded as follows:

Points	Item
25	Two layouts, Each used in proper orientation
20	Clear Button works in both layouts
25	Correct values for methods displayed when rotate device
10	Logging methods
10	Non numeric text displayed on screen defined in string resource
5	Coding style
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. Please no rar files. 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.