**Week 1 Building Your First App**

         [Environment setup](http://developer.android.com/training/basics/firstapp/index.html)

         [環境常見問題](http://pmd.asus.com:8180/pages/viewpage.action?pageId=372474158)

         [裝置驅動常見問題](http://pmd.asus.com:8180/pages/viewpage.action?pageId=372474282)

         [Creating an Android Project](http://developer.android.com/training/basics/firstapp/creating-project.html)

         [Running Your Application](http://developer.android.com/training/basics/firstapp/running-app.html)

         [模擬器常見問題](http://pmd.asus.com:8180/pages/viewpage.action?pageId=372474330)

         [Building a Simple User Interface](http://developer.android.com/training/basics/firstapp/building-ui.html)

         [Starting Another Activity](http://developer.android.com/training/basics/firstapp/starting-activity.html)

         [Activity life cycle](http://developer.android.com/guide/components/activities.html)

         [Activity Launch Mode](http://pmd.asus.com:8180/display/AMAX/Activity+Launch+Mode)

**Exercise:**

An Android activity has these basic callback functions:  
onCreate(), onStart(), onResume(), onPause(), onStop(), onDestroy(), onRestart()

If user has following actions, which callback functions will be called by Android System?  
(a) Open an application

onCreate() => onStart() => onResume()  
(b) Open an application and push HOME button

onCreate() => onStart() => onResume() => onPause() => onStop()  
(C) Open an application and push BACK button

onCreate() => onStart() => onResume() => onPause() => onStop() => onDestroy()  
(D) After action (C) and open application again

onCreate() => onStart() => onResume()

Please implement an activity with all of callback functions above.  
When user do actions (a), (b), (C) and (D),  
your activity should have the ability to display a Toast identifying which callback function is called by Android System.

Moreover, whan't the difference between onSaveInstanceState() and onRestoreInstanceState()? List the order within activity lift cycle.

onSaveInstanceState() 在 onPause() 或 onStop() 之前([link](http://www.cnblogs.com/hanyonglu/archive/2012/03/28/2420515.html)) 之間([link](http://stormzhang.com/android/2014/09/17/android-lifecycle2/))

onRestoreInstanceState() 在 onStart() 和 onPostCreate(Bundle) => onResume() 之间

onCreate –> onContentChanged –> onStart –> onPostCreate –> onResume –> onPostResume –> onPause –> onStop –> onDestroy