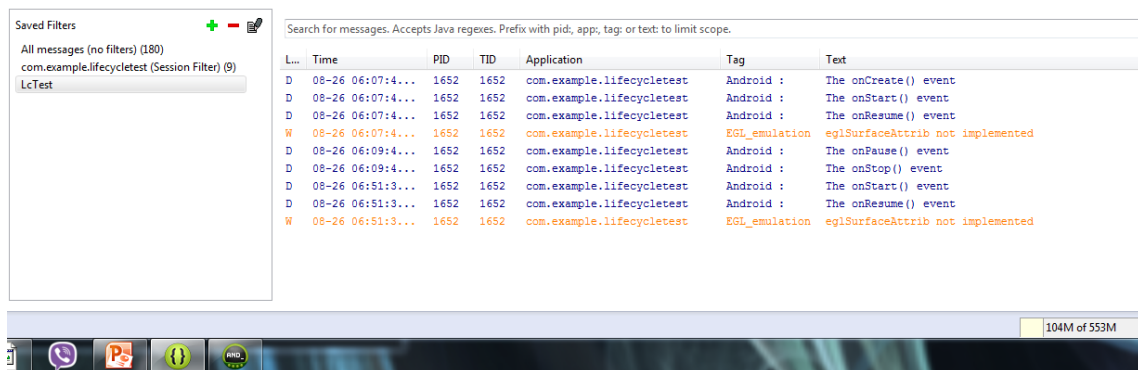


## Activity Lifecycle Example:



The screenshot shows the Android Studio interface. On the left, the 'Saved Filters' panel is open, showing 'All messages (no filters) (180)' and 'com.example.lifecycletest (Session Filter) (9)'. The 'LcTest' filter is selected. The main Logcat window displays a list of messages with columns for Level, Time, PID, TID, Application, Tag, and Text. The messages show the lifecycle events of an activity: onCreate, onStart, onResume, onPause, onStop, and onRestart. The application is 'com.example.lifecycletest' and the tag is 'Android :'. The text of the messages is 'The onCreate() event', 'The onStart() event', 'The onResume() event', 'The onPause() event', 'The onStop() event', and 'The onRestart() event'. There are also two warning messages from 'EGL\_emulation' stating 'eglSurfaceAttrib not implemented'. The bottom status bar shows '104M of 553M'.

L...	Time	PID	TID	Application	Tag	Text
D	08-26 06:07:4...	1652	1652	com.example.lifecycletest	Android :	The onCreate() event
D	08-26 06:07:4...	1652	1652	com.example.lifecycletest	Android :	The onStart() event
D	08-26 06:07:4...	1652	1652	com.example.lifecycletest	Android :	The onResume() event
W	08-26 06:07:4...	1652	1652	com.example.lifecycletest	EGL_emulation	eglSurfaceAttrib not implemented
D	08-26 06:09:4...	1652	1652	com.example.lifecycletest	Android :	The onPause() event
D	08-26 06:09:4...	1652	1652	com.example.lifecycletest	Android :	The onStop() event
D	08-26 06:51:3...	1652	1652	com.example.lifecycletest	Android :	The onRestart() event
D	08-26 06:51:3...	1652	1652	com.example.lifecycletest	Android :	The onRestart() event
W	08-26 06:51:3...	1652	1652	com.example.lifecycletest	EGL_emulation	eglSurfaceAttrib not implemented

## MainActivity.java

```
package com.example.lifecycletest;

import android.os.Bundle;
import android.app.Activity;
import android.util.Log;

public class MainActivity extends Activity {
    String msg = "Android : ";

    /** Called when the activity is first created. */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Log.d(msg, "The onCreate() event");
    }

    /** Called when the activity is about to become visible. */
    @Override
    protected void onStart() {
        super.onStart();
        Log.d(msg, "The onStart() event");
    }

    /** Called when the activity has become visible. */
    @Override
    protected void onResume() {
        super.onResume();
        Log.d(msg, "The onResume() event");
    }

    /** Called when another activity is taking focus. */
    @Override
    protected void onPause() {
        super.onPause();
        Log.d(msg, "The onPause() event");
    }
}
```

```

/** Called when the activity is no longer visible. */
@Override
protected void onStop() {
    super.onStop();
    Log.d(msg, "The onStop() event");
}

/** Called just before the activity is destroyed. */
@Override
public void onDestroy() {
    super.onDestroy();
    Log.d(msg, "The onDestroy() event");
}
}

```

#### activity\_main.xml

```

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="com.example.LifecycleTest.MainActivity" >

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/txt" />

</RelativeLayout>

```

#### strings.xml

```

<?xml version="1.0" encoding="utf-8"?>
<resources>

    <string name="app_name">LifecycleTestExample</string>
    <string name="txt">Lifecycle Test Example</string>
    <string name="action_settings">Settings</string>

</resources>

```

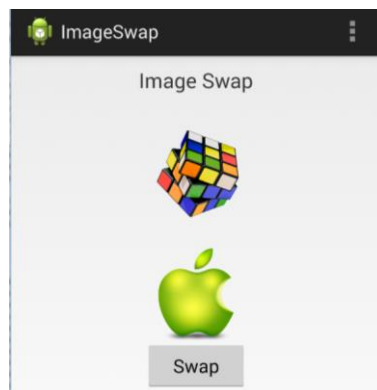
#### Exercise 1: Activity Lifecycle

- Extend the lifecycle example with a spinner view .
- Use string of arrays in the strings.xml file to populate the spinner.
- Select an item from the **spinner** view and observe the difference in lifecycle events with “home” and “back” buttons of the emulator or device. (Sometimes the logcat may not show the logs if the your computer is slow or you have opened many applications at the same time.)

## Exercise 2: UI Development

**A:**

- Create an android Application with two image views with corresponding images.
- Create a TextView to assign title a the top
- Create Button to Swap the image of two image views
- Use action listener for button “click” event
- Note how drawable is used to retrieve images



**B:**

- Create two buttons, add images to those buttons.
- Swap the images of on their click events

