

Laboratorio de Ventana de Dialogo

Archivo de Manifiesto

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.rhaynes.messagebox">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Código del MainActivity

```
package com.example.rhaynes.messagebox;

import android.content.DialogInterface;
import android.support.v7.app.AlertDialog;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    Button _btnmessagebox;
    AlertDialog.Builder _alert;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        _btnmessagebox = (Button) findViewById(R.id.btnmessage);
        _alert = new AlertDialog.Builder(this);
        _alert.setTitle("Mensaje del Sistema");
        _alert.setMessage("Bienvenidos al Mundo Android");
        _alert.setPositiveButton("Confirmar", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int which) {
                Log.d("Confirmación:", "Positiva");
            }
        });

        _alert.setNegativeButton("Salir", new DialogInterface.OnClickListener() {
            @Override
```

```

        public void onClick(DialogInterface dialog, int which) {
            finish();
        }
    });

    _btnmessagebox.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            _alert.show();
        }
    });
}
}

```

Archivo de Layout

```

<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/btnmessage"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:text="Message Box"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>

```

Listar Directorio

Archivo de Manifiesto

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.rhaynes.listdir">

    <uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE" />
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Código del MainActivity

```
package com.example.rhaynes.listdir;

import android.os.Environment;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;

import java.io.File;
import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {

    ListView _lista;
    ListView _lstFile;
    File _f;
    File[] _fs;
    String _raiz;
    private List<String> _fileList = new ArrayList<String>();
    private List<String> _pathList = new ArrayList<String>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        _lista = (ListView) findViewById(R.id.lstvdir);
```

```

        _lista.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int position,
long id) {
                Log.d("New Path", _pathList.get(position).toString());
                //File selected = new File(_pathList.get(position));
                _getFileList(_pathList.get(position));
            }
        });
        _raiz = Environment.getExternalStorageDirectory().toString();

        Log.d("Directorio: ", _raiz.toString());

        _getFileList(_raiz);
    }

    void _getFileList(String _path){
        _fileList.clear();
        _pathList.clear();

        _f = new File(_path);
        _fs = _f.listFiles();

        for(int _i = 0; _i < _fs.length; _i++){
            File _fl = _fs[_i];

            if(_fl.isDirectory()){
                _pathList.add(_fl.getPath());
            }else if(_fl.isFile()){
                _pathList.add("File "+_fl.getName());
                _fileList.add(_fl.getName());
            }
        }

        ArrayAdapter<String> directoryList
            = new ArrayAdapter<String>(this,
                android.R.layout.simple_list_item_1, _pathList);

        _lista.setAdapter(directoryList);
    }
}

```

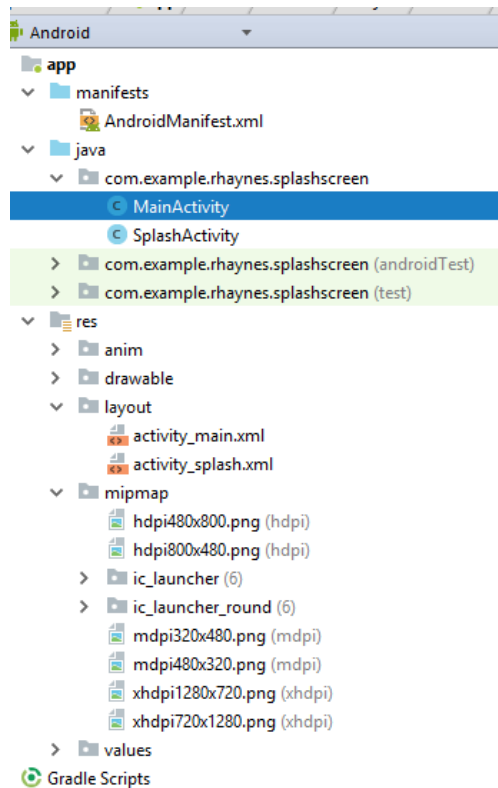
Archivo de Layout

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/lstvdir"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
    />

</android.support.constraint.ConstraintLayout>
```

Laboratorio de Splash Screen



Archivo de Manifiesto

```
<?xml version="1.0" encoding="utf-8"?>
<manifest
    xmlns:android="http://schemas.android.com/apk/res/
    android"
    package="com.example.rhaynes.splashscreen">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"

        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".SplashActivity">
            <intent-filter>
                <action
                    android:name="android.intent.action.MAIN" />

                <category
                    android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <activity
            android:name=".MainActivity"></activity>
        </application>

    </manifest>
```

Archivo SplashActiviy

```
package com.example.rhaynes.splashscreen;

import android.content.Intent;
import android.os.Handler;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

public class SplashActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash);

        Handler _handler = new Handler();
        _handler.postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent _intent = new Intent(SplashActivity.this, MainActivity.class);
                startActivity(_intent);
                finish();
            }
        }, 3000);
    }
}
```

Archivo MainActivity

```
package com.example.rhaynes.splashscreen;

import android.app.Activity;
import android.os.Bundle;
import android.support.annotation.Nullable;
import android.support.v7.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(@Nullable Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Layout activity_main

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="8dp"
        android:text="Hola Mundo Android"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</android.support.constraint.ConstraintLayout>
```

Layout activity_splash

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_gravity="center"
    tools:context=".SplashActivity">

    <LinearLayout
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:background="@mipmap/xhdpi720x1280"
        android:gravity="center"
```

```
        android:orientation="vertical"></LinearLayout>  
</android.support.constraint.ConstraintLayout>
```

 <p>Android Studio</p>	Imágenes de Splash
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Laboratorio de Sensores

Archivo de Manifiesto

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.rhaynes.myapplication">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">

        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
    <uses-permission android:name="android.hardware.sensor.gyroscope"/>
    <uses-permission android:name="android.hardware.sensor.accelerometer"/>
    <uses-permission android:name="android.hardware.sensor.proximity"/>
</manifest>
```

Archivo de MainActivity

```
package com.example.rhaynes.myapplication;

import android.graphics.Color;
import android.hardware.Sensor;
import android.hardware.SensorEvent;
import android.hardware.SensorManager;
import android.hardware.SensorEventListener;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.widget.TextView;

import java.util.List;

public class MainActivity extends AppCompatActivity {

    SensorManager _sensormanager;
    TextView _txtview;
    Sensor _gyroscope;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        _txtview = (TextView) findViewById(R.id.txtview);
        _txtview.setBackgroundColor(Color.RED);

        _sensormanager = (SensorManager) getSystemService(SENSOR_SERVICE);
        _gyroscope = _sensormanager.getDefaultSensor(Sensor.TYPE_GYROSCOPE);
    }
}
```

```

        if(_gyroscope == null){
            Log.d("Sensor:", " No esta activo");
        }

        List<Sensor> _sensorList = _sensormanager.getSensorList(Sensor.TYPE_ALL);
        StringBuilder _sensorText = new StringBuilder();

        for (Sensor _currentSensor : _sensorList ) {

            _sensorText.append(_currentSensor.getName()).append(System.getProperty("line.separator"));
        }

        _txtview.setText(_sensorText);
    }

    @Override
    protected void onResume() {
        super.onResume();

        SensorEventListener _gyroscopeListener = new SensorEventListener() {
            @Override
            public void onSensorChanged(SensorEvent sensorEvent) {
                Log.d("Sencor", String.valueOf(sensorEvent.sensor.getType()));
                if(sensorEvent.values[2] > 0.5f) {
                    Log.d("Movimiento", String.valueOf(sensorEvent.values[2]));
                    _txtview.setBackgroundColor(Color.BLUE);
                } else if (sensorEvent.values[2] < -0.5f){
                    Log.d("Movimiento", " Nulo");
                    _txtview.setBackgroundColor(Color.RED);
                }
            }

            @Override
            public void onAccuracyChanged(Sensor sensor, int i) {

            }
        };
    }

    _sensormanager.registerListener(_gyroscopeListener, _gyroscope, SensorManager.SENSOR_DELAY_NORMAL);
}

```

Archivo de Layout

```
<?xml version="1.0" encoding="utf-8"?>
  <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <TextView
      android:id="@+id/txtview"
      android:layout_width="match_parent"
      android:layout_height="match_parent" />

  </LinearLayout>
```

Laboratorio de Contador

Archivo de Manifiesto

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.rhaynes.myapplication">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Archivo MainActivity

```
package com.example.rhaynes.myapplication;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    TextView _txtview;
    Button _btnclick;
    int _contador = 0;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        _txtview = (TextView) findViewById(R.id.txtview);
        _btnclick = (Button) findViewById(R.id.btnclick);

        _txtview.setText("Bienvenidos al Mundo Android");

        _btnclick.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                _contador++;
                _txtview.setText("Bienvenidos al Mundo Android ("+_contador+)");
            }
        });
    }
}
```

```
}  
}
```

Archivo de Layout

```
<?xml version="1.0" encoding="utf-8"?>  
<android.support.constraint.ConstraintLayout  
    xmlns:android="http://schemas.android.com/apk/res/android"  
    xmlns:app="http://schemas.android.com/apk/res-auto"  
    xmlns:tools="http://schemas.android.com/tools"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    tools:context=".MainActivity">  
  
    <LinearLayout  
        android:layout_width="368dp"  
        android:layout_height="495dp"  
        android:gravity="center"  
        android:orientation="vertical"  
        tools:layout_editor_absoluteX="8dp"  
        tools:layout_editor_absoluteY="8dp">  
  
        <TextView  
            android:id="@+id/txtview"  
            android:layout_width="match_parent"  
            android:layout_height="wrap_content"  
            android:text="TextView"  
            android:textAlignment="center" />  
  
        <Button  
            android:id="@+id/btnclick"  
            android:layout_width="wrap_content"  
            android:layout_height="wrap_content"  
            android:text="Haz Click" />  
    </LinearLayout>  
</android.support.constraint.ConstraintLayout>
```

Laboratorio de Eventos

Archivo de Manifiesto

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.rhaynes.myapptextview">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Archivo de MainActivity

```
package com.example.rhaynes.myapptextview;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    TextView _txtview;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        _txtview = (TextView) findViewById(R.id.txtview);

        _txtview.setText("Bienvenidos al Mundo Android");
    }

    @Override
    protected void onStart() {
        super.onStart();

        Log.d("Evento Start", "onStart");
    }

    @Override
    protected void onStop() {
        super.onStop();
    }
}
```

```

        _txtview.setText("Se detuvo el programa");
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
        Log.d("Evento by", "onDestroy");
    }
}

```

Archivo de Layout

```

<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        android:id="@+id/txtview"/>

</android.support.constraint.ConstraintLayout>

```