

**UNIVERSIDAD
DE ANTIOQUIA**
1803

Sesión 5. ListView y Navigation Drawer

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ListView



Navigation Drawer

- ❖ Es el control mas utilizado de todos.
- ❖ Muestra al usuario una lista de opciones seleccionables directamente sobre el propio control
- ❖ Permite hacer Scroll si hay opciones que no se ven
- ❖ Crear nuevo modulo ExListView

```
<LinearLayout 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"
    tools:context=".MainActivity">

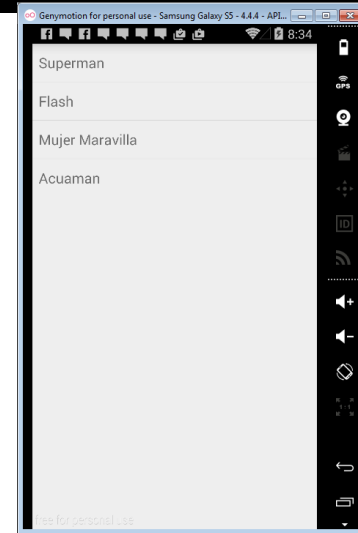
    <ListView android:id="@+id/Lst"
        android:layout_height="wrap_content"
        android:layout_width="wrap_content"/>

</LinearLayout>
```



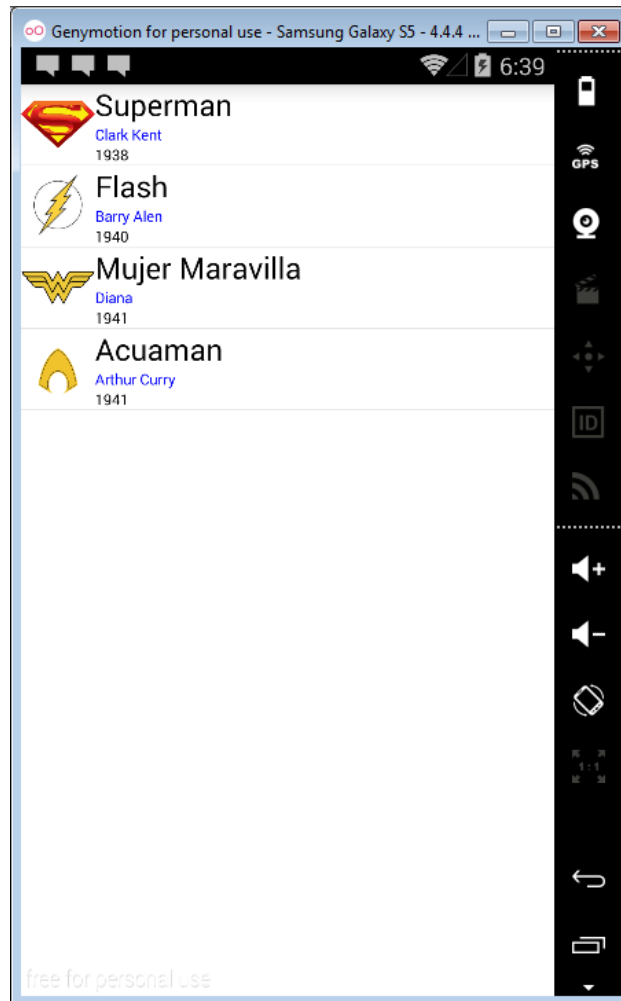
❖ Se programa la actividad Principal

```
public class MainActivity extends Activity {  
  
    final String[] nombres = new String[] { "Superman", "Flash", "Mujer Maravilla", "Acuaman" };  
    ListView lstNombres;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
  
        ArrayAdapter<String> adaptador = new ArrayAdapter<String>(this, android.R.layout.simple_list_item_1, nombres);  
  
        lstNombres = (ListView) findViewById(R.id.lst);  
  
        lstNombres.setAdapter(adaptador);  
    }  
}
```



Cambia el layout genérico de Android

- ❖ Si se quiere mejorar el ListView para agregar mas datos



Creamos una clase con lo que queremos mostrar: Imagen, Nombre, Nombre de Pila y año (getters)

```
package com.example.exlistview;

public class Lista_Entrada {
    private int idImagen;
    private String nombre;
    private String nombrePila;
    private String fecha;

    public Lista_Entrada(int idImagen, String nombre, String nombrePila) {
        this.idImagen = idImagen;
        this.nombre = nombre;
        this.nombrePila = nombrePila;
    }

    public int getIdImagen() {
        return idImagen;
    }

    public String getNombre() {
        return nombre;
    }

    public String getNombrePila() {
        return nombrePila;
    }

    public String getFecha() {
        return fecha;
    }
}
```

❖ Luego creamos un layout (xml)

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="horizontal"
    android:layout_width="fill_parent"
    android:layout_height="60dp"
    android:layout_margin="30dp"
    android:background="@color/white">

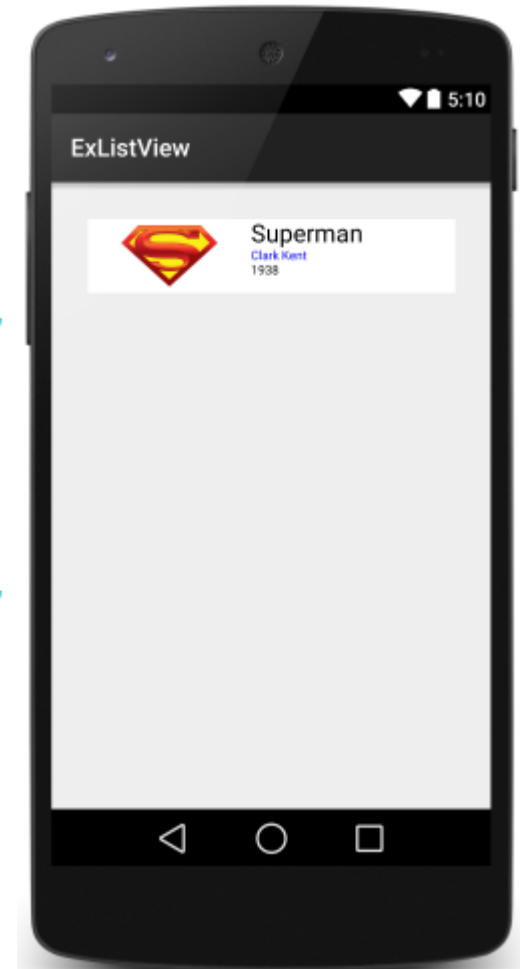
    <ImageView
        android:layout_width="50dp"
        android:layout_height="50dp"
        android:id="@+id/imagen"
        android:src="@drawable/supermanlogo"
        android:layout_gravity="center"
        android:layout_weight="0.5"
    />

    <LinearLayout
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_weight="1">

        <TextView
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:id="@+id/tnombre"
            android:text="@string/tSuperman"
            android:textSize="20dp"
            android:textColor="@color/black"/>

        <TextView
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:id="@+id/tnomPila"
            android:textSize="10dp"
            android:text="@string/tSuperClar"
            android:textColor="@color/blue"/>

        <TextView
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:id="@+id/tyear"
            android:textSize="10dp"
            android:layout_marginRight="10dp"
            android:text="@string/tSuperyear"
            android:textColor="@color/black"/>
    </LinearLayout>
    </LinearLayout>
```



❖ Una vez creado el layout y la clase se debe crear el adaptador para unir las dos cosas

```
class Adapter extends ArrayAdapter<Lista_Entrada>{  
    public Adapter(Context context, Lista_Entrada[] datos) {  
        super(context, R.layout.listitem, datos);  
    }  
}
```

Constructor

```
@Override  
public View getView(int position, View convertView, ViewGroup parent) {  
  
    LayoutInflater inflater = LayoutInflater.from(getContext());  
    View item = inflater.inflate(R.layout.listitem, null);  
  
    TextView nombre = (TextView) item.findViewById(R.id.tnombre);  
    nombre.setText(datos[position].getNombre());  
  
    TextView nombrePila = (TextView) item.findViewById(R.id.tnomPila);  
    nombrePila.setText(datos[position].getNombrePila());  
  
    TextView year = (TextView) item.findViewById(R.id.tyear);  
    year.setText(datos[position].getFecha());  
  
    ImageView imagen = (ImageView) item.findViewById(R.id.imagen);  
    imagen.setImageResource(datos[position].getIdImagen());  
  
    return (item);  
}
```

Genera y rellena con los datos
Los widgets de la Interfaz

- * se llama cada vez que haya que mostrar un elemento de la lista.
- * Primero se "inflar" el layout XML
- * Esto consiste en consultar el XML de nuestro layout y crear e inicializar la estructura de objetos java equivalente.
- * Para ello, crearemos un nuevo objeto LayoutInflater y generaremos la estructura de objetos mediante su método inflate (id_layout).

❖ El Main Activity cambia

```
public class MainActivity extends Activity {

    private Lista_Entrada[] datos =
        new Lista_Entrada[] {
            new Lista_Entrada(R.drawable.supermanlogo, "Superman", "Clark Kent", "1938"),
            new Lista_Entrada(R.drawable.flashlogo, "Flash", "Barry Alen", "1940"),
            new Lista_Entrada(R.drawable.mujoermaravillalogo, "Mujer Maravilla", "Diana", "1941"),
            new Lista_Entrada(R.drawable.acuamanlogo, "Acuaman", "Arthur Curry", "1941"));

    private ListView lst;

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

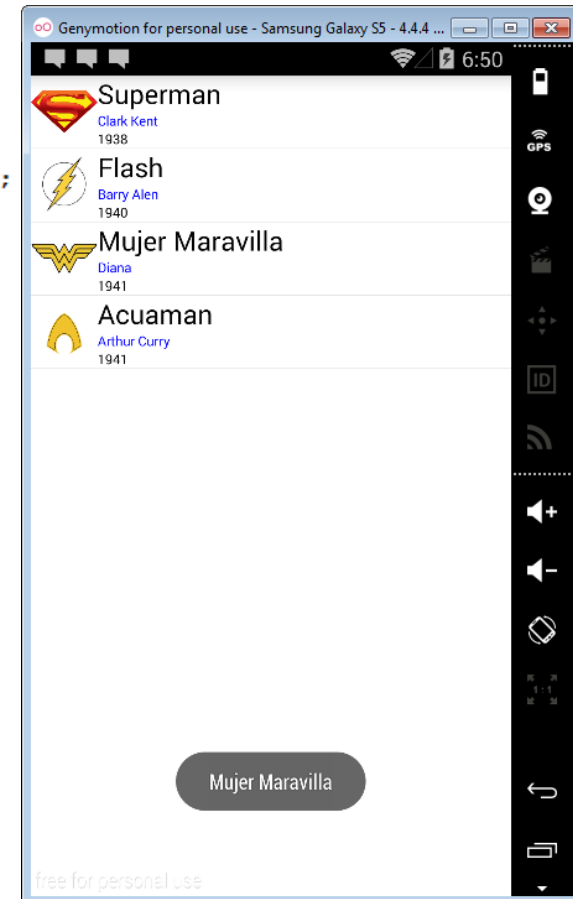
        Adapter adaptador = new Adapter(this, datos);

        lst = (ListView) findViewById(R.id.Lst);

        lst.setAdapter(adaptador);
    }
}
```

❖ Listener

```
lst.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
    @Override  
    public void onItemClick(AdapterView<?> parent, View view, int position, long id) {  
        String opcionSeleccionada = ((Lista_Entrada)parent.getItemAtPosition(position)).getNombre();  
  
        Toast.makeText(MainActivity.this, opcionSeleccionada, Toast.LENGTH_SHORT).show();  
    }  
});
```





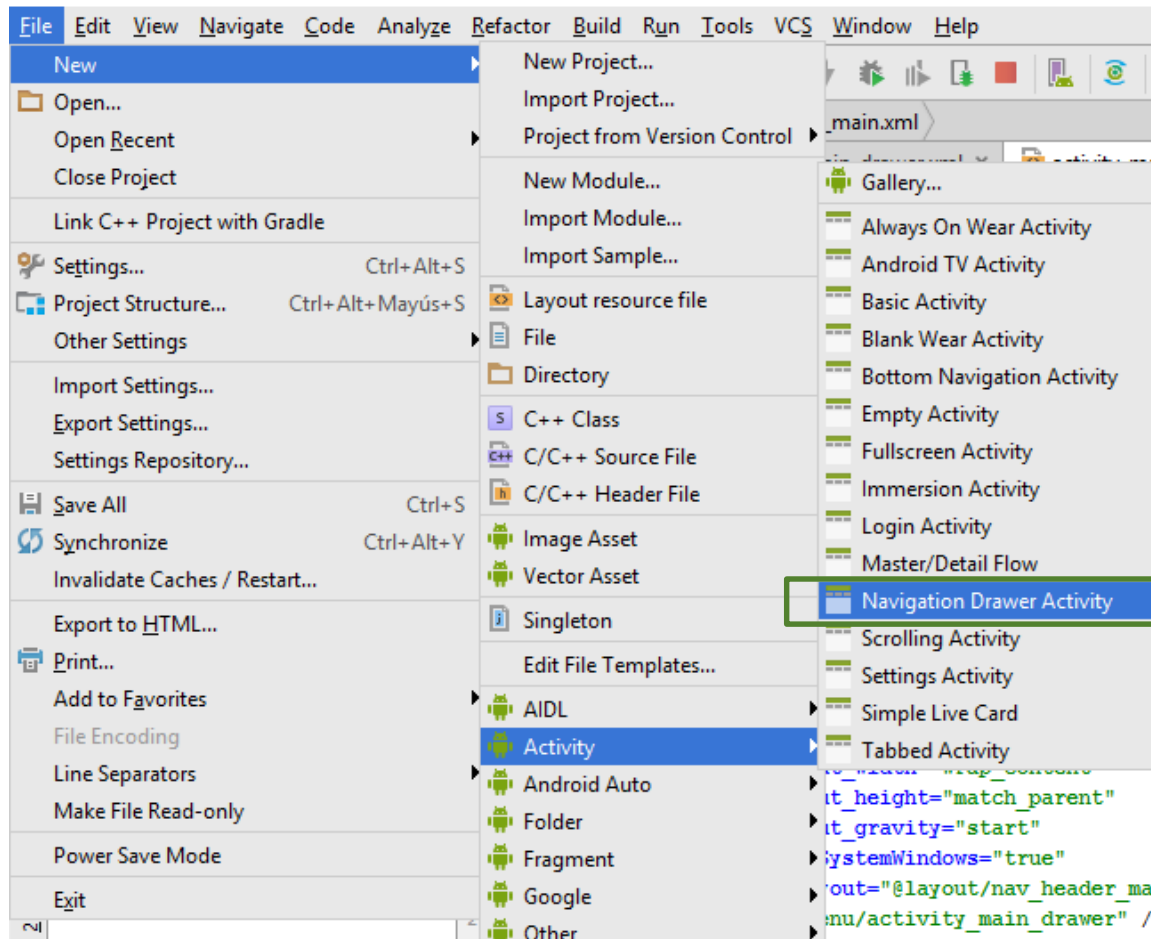
ListView



Navigation Drawer

Navigation Drawer

- ❖ Crear una nueva actividad seleccionando Navigation Drawer Activity



Navigation Drawer

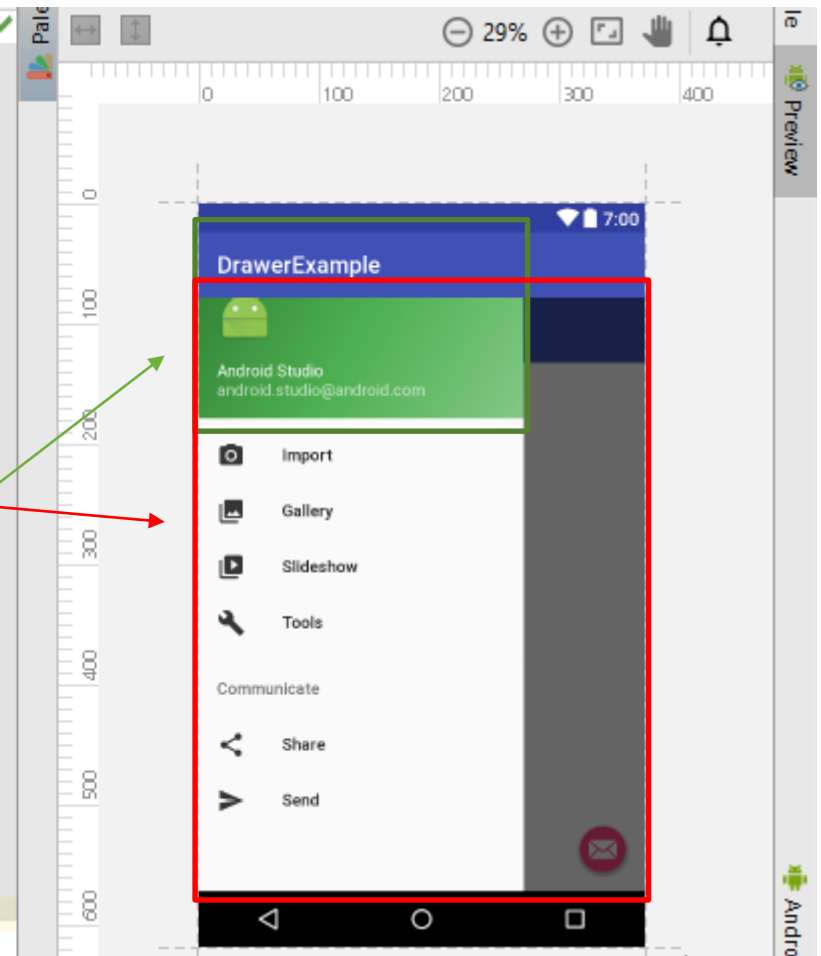
❖ Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.v4.widget.DrawerLayout
    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:id="@+id/drawer_layout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:fitsSystemWindows="true"
    tools:openDrawer="start">

    <include
        layout="@layout/app_bar_main"
        android:layout_width="match_parent"
        android:layout_height="match_parent" />

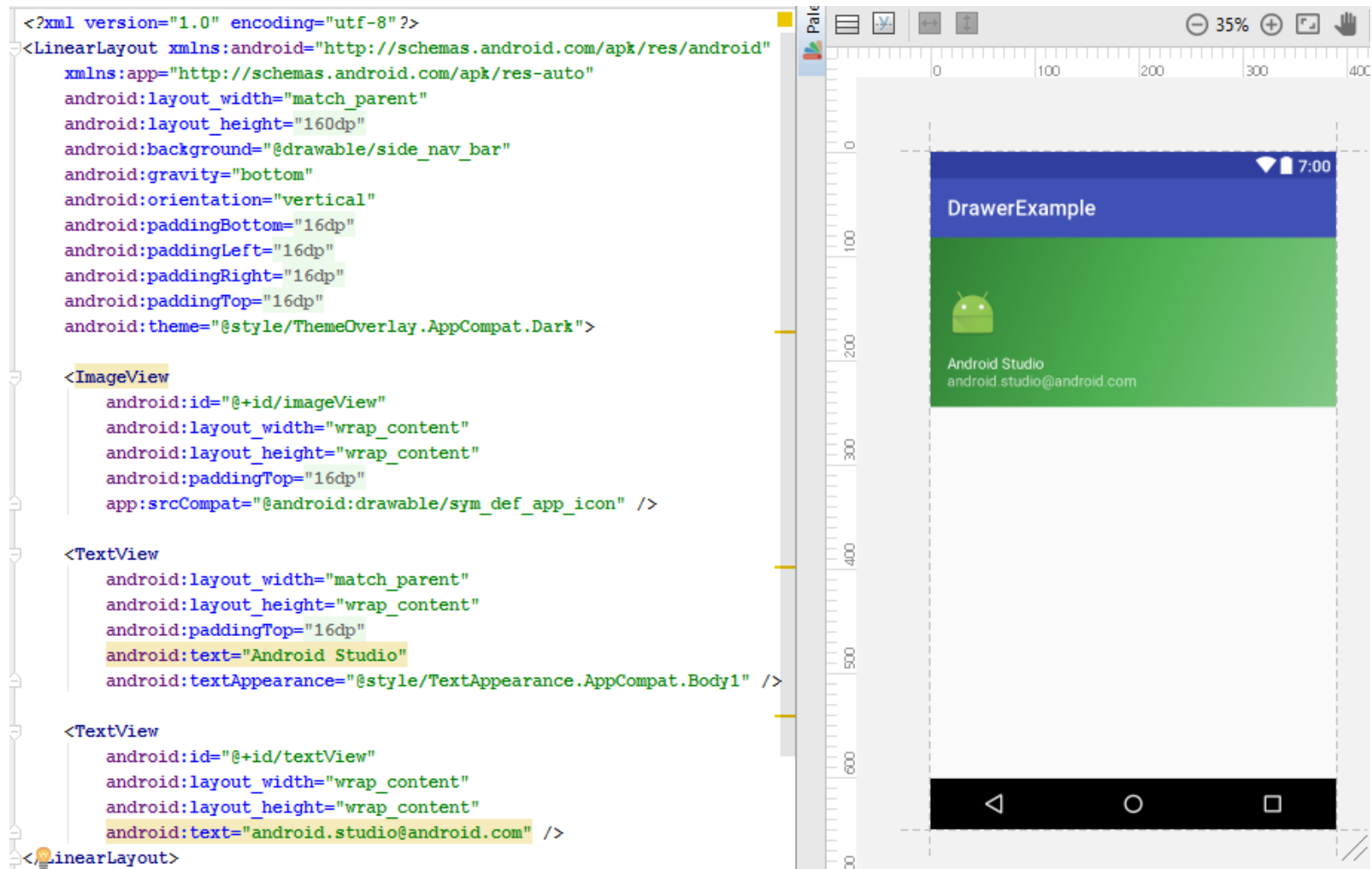
    <android.support.design.widget.NavigationView
        android:id="@+id/nav_view"
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:layout_gravity="start"
        android:fitsSystemWindows="true"
        app:headerLayout="@layout/nav_header_main"
        app:menu="@menu/activity_main_drawer" />

</android.support.v4.widget.DrawerLayout>
```



Navigation Drawer

nav_header_main.xml



Navigation Drawer

```
<include  
    layout="@layout/app_bar_main"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent" />
```

```
<?xml version="1.0" encoding="utf-8"?>  
<android.support.design.widget.CoordinatorLayout  
    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="com.edwinacubillos.drawerexample.MainActivity">  
    <android.support.design.widget.AppBarLayout  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:theme="@style/AppTheme.AppBarOverlay">  
        <android.support.v7.widget.Toolbar  
            android:id="@+id/toolbar"  
            android:layout_width="match_parent"  
            android:layout_height="?attr/actionBarSize"  
            android:background="?attr/colorPrimary"  
            app:popupTheme="@style/AppTheme.PopupOverlay" />  
        </android.support.design.widget.AppBarLayout>  
        <include layout="@layout/content_main" />  
        <android.support.design.widget.FloatingActionButton  
            android:id="@+id/fab"  
            android:layout_width="wrap_content"  
            android:layout_height="wrap_content"  
            android:layout_gravity="bottom|end"  
            android:layout_margin="16dp"  
            app:srcCompat="@android:drawable/ic_dialog_email" />  
    </android.support.design.widget.CoordinatorLayout>
```

???

Navigation Drawer

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.design.widget.CoordinatorLayout
    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="com.edwinacubillos.drawerexample.MainActivity">

    <android.support.design.widget.AppBarLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:theme="@style/AppTheme.AppBarOverlay">

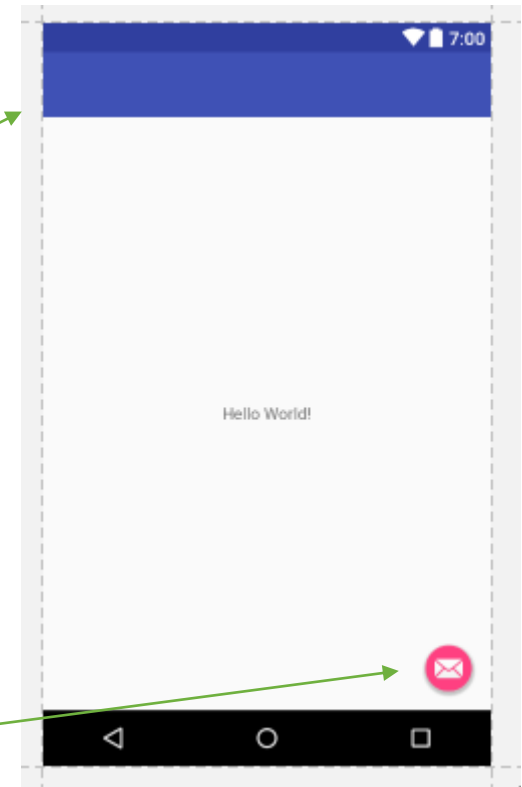
        <android.support.v7.widget.Toolbar
            android:id="@+id/toolbar"
            android:layout_width="match_parent"
            android:layout_height="?attr/actionBarSize"
            android:background="?attr/colorPrimary"
            app:popupTheme="@style/AppTheme.PopupOverlay" />

    </android.support.design.widget.AppBarLayout>

    <include layout="@layout/content_main" />

    <android.support.design.widget.FloatingActionButton
        android:id="@+id/fab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="bottom|end"
        android:layout_margin="16dp"
        app:srcCompat="@android:drawable/ic_dialog_email" />

</android.support.design.widget.CoordinatorLayout>
```



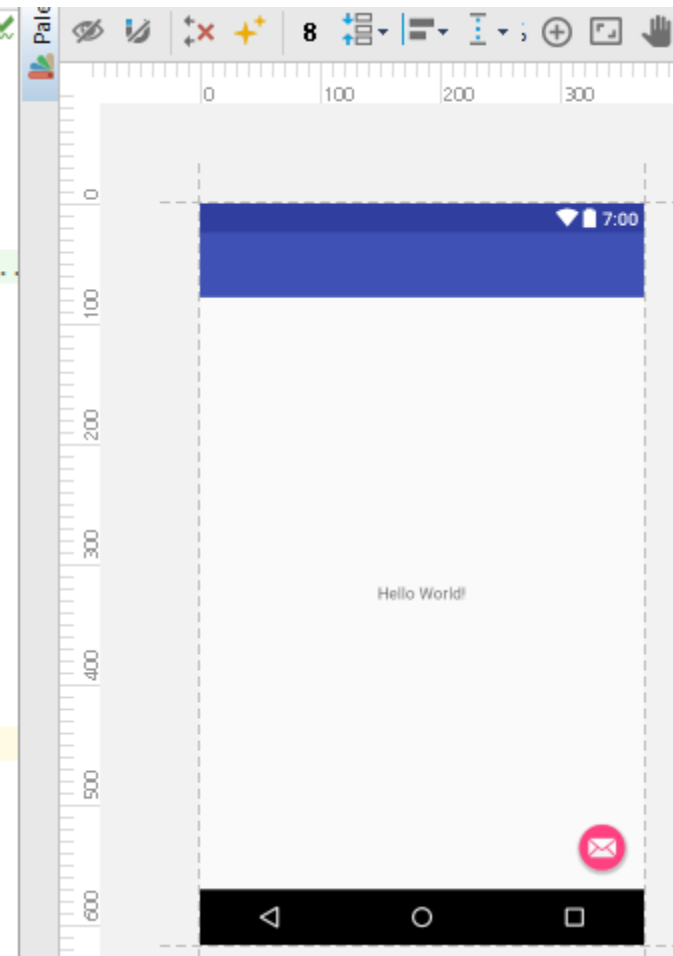
Navigation Drawer

❖ Contenido que se quiere ver en la Aplicación

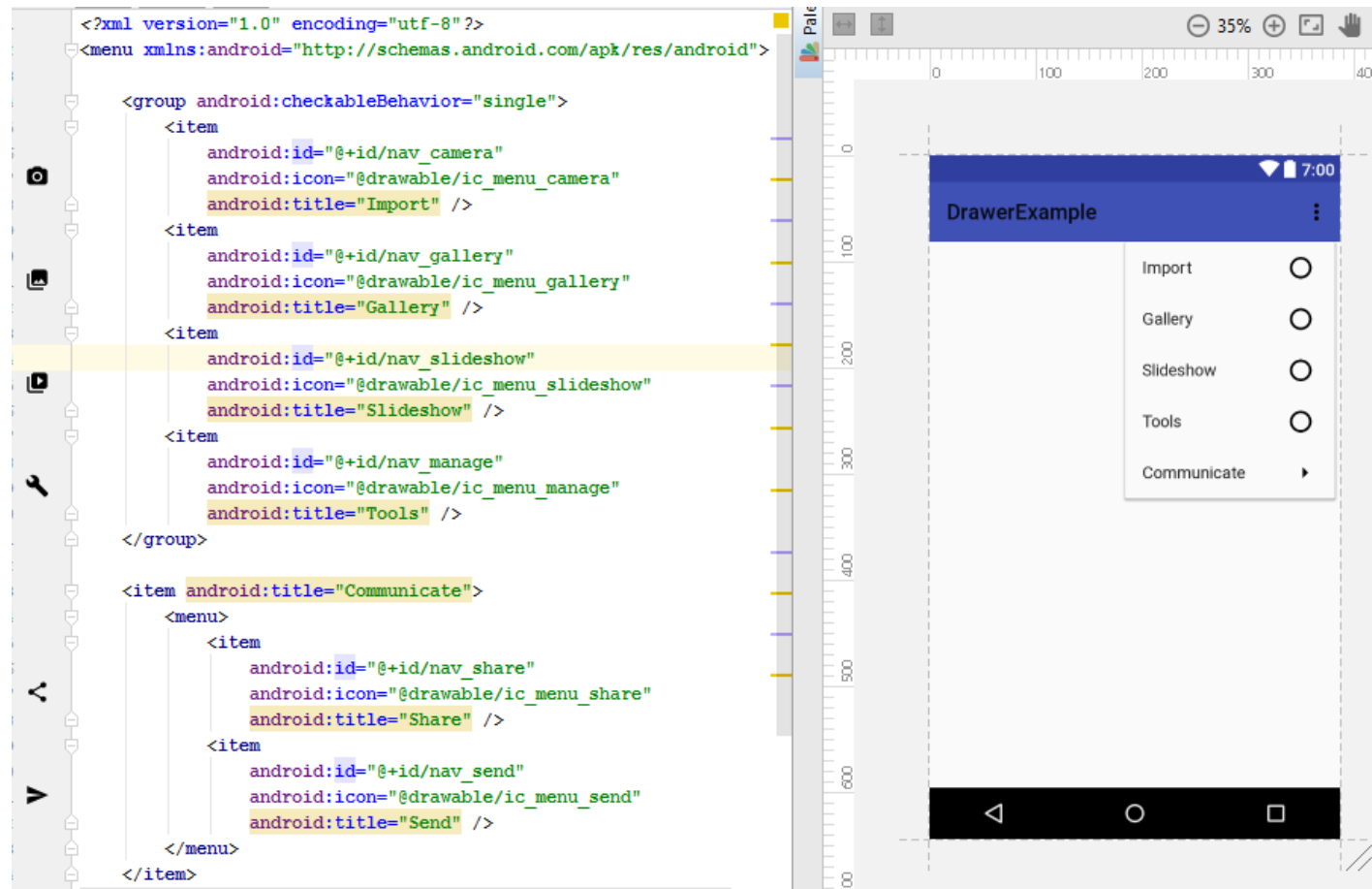
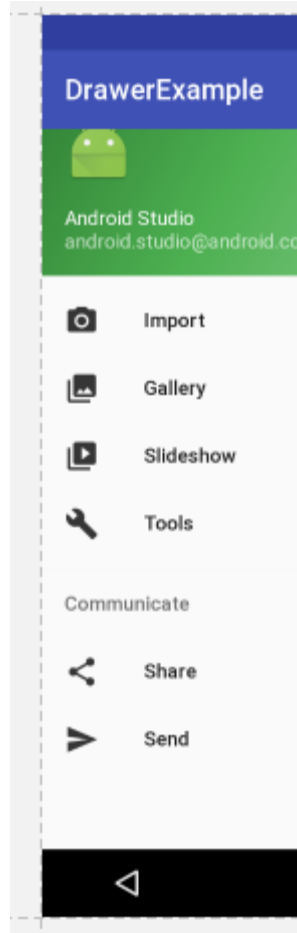
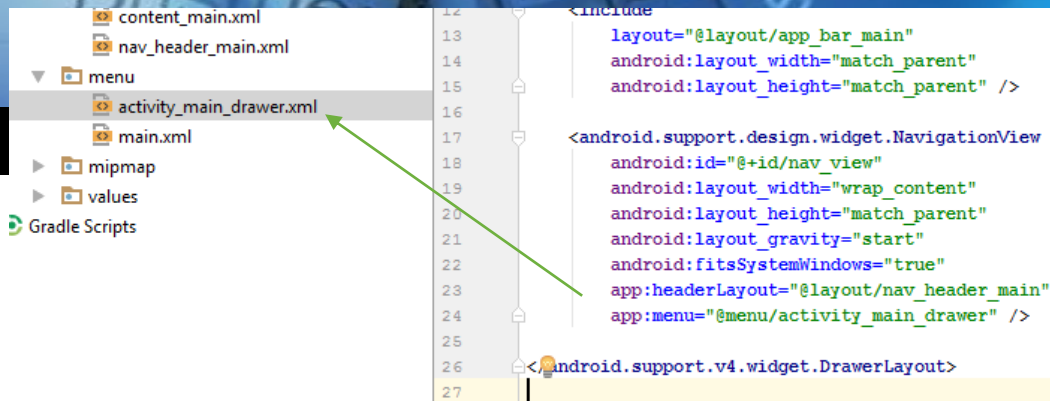
```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    app:layout_behavior="android.support.design.widget.AppBarLayout$ScrollingView..."
    tools:context="com.edwinacubillos.drawerexample.MainActivity"
    tools:showIn="@layout/app_bar_main">

    <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.support.constraint.ConstraintLayout>
```



Navigation Drawer



Navigation Drawer

```
public class MainActivity extends AppCompatActivity
    implements NavigationView.OnNavigationItemSelectedListener { //Listener para el Menu

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toolbar toolbar = (Toolbar) findViewById(R.id.toolbar); //Configuración de Toolbar
        setSupportActionBar(toolbar);

        FloatingActionButton fab = (FloatingActionButton) findViewById(R.id.fab); //Listener Boton flotante
        fab.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Snackbar.make(view, "Replace with your own action", Snackbar.LENGTH_LONG)
                    .setAction("Action", null).show();
            }
        });

        DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout); //Configuración DrawerLayout
        ActionBarDrawerToggle toggle = new ActionBarDrawerToggle(
            this, drawer, toolbar, R.string.navigation_drawer_open, R.string.navigation_drawer_close);
        drawer.setDrawerListener(toggle);
        toggle.syncState();

        NavigationView navigationView = (NavigationView) findViewById(R.id.nav_view); //Configuración del listener del menu
        navigationView.setNavigationItemSelectedListener(this);
    }
}
```

Navigation Drawer

```
@Override
public void onBackPressed() {
    DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout);
    if (drawer.isDrawerOpen(GravityCompat.START)) {
        drawer.closeDrawer(GravityCompat.START);
    } else {
        super.onBackPressed();
    }
}

public boolean onNavigationItemSelected(MenuItem item) {
    // Handle navigation view item clicks here.
    int id = item.getItemId();

    if (id == R.id.nav_camera) {
        // Handle the camera action
    } else if (id == R.id.nav_gallery) {

    } else if (id == R.id.nav_slideshow) {

    } else if (id == R.id.nav_manage) {

    } else if (id == R.id.nav_share) {

    } else if (id == R.id.nav_send) {

    }

    DrawerLayout drawer = (DrawerLayout) findViewById(R.id.drawer_layout);
    drawer.closeDrawer(GravityCompat.START);
    return true;
}
```

Acciones del menú

Trabajo con Fragments

❖ Ubicar un FrameLayout para contener los Fragments

```
<?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"
    app:layout_behavior="android.support.design.widget.AppBarLayout$ScrollingView.."
    tools:context="com.edwinacubillos.drawerexample.MainActivity"
    tools:showIn="@layout/app_bar_main">

    <FrameLayout android:layout_width="368dp"
        android:layout_height="495dp"
        android:id="@+id/contenedorFrame"
        tools:layout_editor_absoluteY="8dp"
        tools:layout_editor_absoluteX="8dp">

    </FrameLayout>

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

Trabajo con Fragments

- ❖ Se coloca el fragment

```
fm = getSupportFragmentManager();  
ft = fm.beginTransaction();  
  
h1 = new HotelUnoFragment();  
ft.add(R.id.contenedorFrame, h1).commit();
```

- ❖ Con e menú del Navigation se cambia el fragment

```
public boolean onNavigationItemSelected(MenuItem item) {  
    // Handle navigation view item clicks here.  
    int id = item.getItemId();  
  
    //fm = getSupportFragmentManager();  
    ft = fm.beginTransaction();  
  
    if (id == R.id.nav_camera) {  
        h2 = new HotelDosFragment();  
        ft.replace(R.id.contenedorFrame, h2).commit();  
  
        // Handle the camera action
```

Trabajo con Actividades

```
public boolean onNavigationItemSelected(MenuItem item) {  
    // Handle navigation view item clicks here.  
    int id = item.getItemId();  
  
    if (id == R.id.nav_camera) {  
        Intent intent = new Intent(DrawerActivity.this, HotelesActivity.class);  
        startActivity(intent);  
        // Handle the camera action  
    } else if (id == R.id.nav_gallery) {  
        FragmentManager fm = getSupportFragmentManager();  
        FragmentTransaction ft = fm.beginTransaction();  
  
        HotelDosFragment fragment = new HotelDosFragment();  
        ft.replace(R.id.contenedorFragment, fragment).commit();  
  
    } else if (id == R.id.nav_slideshow) {  
  
    } else if (id == R.id.nav_manage) {  
  
    } else if (id == R.id.nav_share) {  
  
    } else if (id == R.id.nav_send) {  
  
    }  
}
```