

## Android Studio : Les listes

### MainActivity.java :

```
package com.example.payslist;

import android.os.Bundle;

import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ListView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {

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

        List<Country> image_details = getListData();
        final ListView listView = (ListView) findViewById(R.id.listView);
        listView.setAdapter(new CountryListAdapter(this, image_details));

        // When the user clicks on the ListItem
        listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {

            @Override
            public void onItemClick(AdapterView<?> a, View v, int position, long id) {
                Object o = listView.getItemAtPosition(position);
                Country country = (Country) o;
                Toast.makeText(MainActivity.this, "Selected : " + " " + country,
                    Toast.LENGTH_LONG).show();
            }
        });
    }

    private List<Country> getListData() {
        List<Country> list = new ArrayList<Country>();
        Country vietnam = new Country("Vietnam", "vi", 98000000);
        Country usa = new Country("United States", "us", 320000000);
        Country russia = new Country("Russia", "ru", 142000000);

        list.add(vietnam);
        list.add(usa);
        list.add(russia);
    }
}
```

```

        return list;
    }
}

```

### Country.java :

```

package com.example.payslist;

public class Country {

    private String countryName;

    // Image name (Without extension)
    private String flagName;
    private int population;

    public Country(String countryName, String flagName, int population) {
        this.countryName= countryName;
        this.flagName= flagName;
        this.population= population;
    }

    public int getPopulation() {
        return population;
    }

    public void setPopulation(int population) {
        this.population = population;
    }

    public String getCountryName() {
        return countryName;
    }

    public void setCountryName(String countryName) {
        this.countryName = countryName;
    }

    public String getFlagName() {
        return flagName;
    }

    public void setFlagName(String flagName) {
        this.flagName = flagName;
    }

    @Override
    public String toString() {
        return this.countryName+" (Population: "+ this.population+")";
    }
}

```

### CountryListAdapater.java :

```

package com.example.payslist;

import android.content.Context;
import android.util.Log;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.BaseAdapter;
import android.widget.ImageView;
import android.widget.TextView;
import java.util.List;

public class CountryListAdapter extends BaseAdapter {

    private List<Country> listData;
    private LayoutInflater inflater;
    private Context context;

    public CountryListAdapter(Context aContext, List<Country> listData) {
        this.context = aContext;
        this.listData = listData;
        inflater = LayoutInflater.from(aContext);
    }

    @Override
    public int getCount() {
        return listData.size();
    }

    @Override
    public Object getItem(int position) {
        return listData.get(position);
    }

    @Override
    public long getItemId(int position) {
        return position;
    }

    public View getView(int position, View convertView, ViewGroup parent) {
        ViewHolder holder;
        if (convertView == null) {
            convertView = inflater.inflate(R.layout.list_item_layout, null);
            holder = new ViewHolder();
            holder.flagView = (ImageView) convertView.findViewById(R.id.imageView_flag);
            holder.countryNameView = (TextView)
convertView.findViewById(R.id.textView_countryName);
            holder.populationView = (TextView)
convertView.findViewById(R.id.textView_population);
            convertView.setTag(holder);
        } else {
            holder = (ViewHolder) convertView.getTag();
        }

        Country country = this.listData.get(position);
        holder.countryNameView.setText(country.getCountryName());
    }
}

```

```

        holder.populationView.setText("Population: " + country.getPopulation());

        int imageId = this.getMipmapResIdByName(country.getFlagName());

        holder.flagView.setImageResource(imageId);

        return convertView;
    }

    // Find Image ID corresponding to the name of the image (in the directory mipmap).
    public int getMipmapResIdByName(String resName) {
        String pkgName = context.getPackageName();
        // Return 0 if not found.
        int resID = context.getResources().getIdentifier(resName, "mipmap", pkgName);
        Log.i("CustomListView", "Res Name: "+ resName+"==> Res ID = "+ resID);
        return resID;
    }

    static class ViewHolder {
        ImageView flagView;
        TextView countryNameView;
        TextView populationView;
    }
}

```

**main\_activity.xml :**

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.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/listView"
        android:layout_width="409dp"
        android:layout_height="354dp"
        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="123dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

**list\_item\_layout.xml :**

```

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

    <ImageView
        android:layout_width="64dp"
        android:layout_height="64dp"

```

```
android:id="@+id/imageView_flag"
app:srcCompat="@mipmap/vi"
android:layout_alignParentTop="true"
android:layout_alignParentLeft="true"
android:layout_alignParentStart="true"
android:layout_marginLeft="5dp"
android:layout_marginRight="5dp"
android:layout_marginTop="5dp" />
```

<TextView

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textAppearance="?android:attr/textAppearanceLarge"
android:text="Country Name"
android:id="@+id/textView_countryName"
android:layout_alignParentTop="true"
android:layout_toRightOf="@+id/imageView_flag"
android:layout_alignParentRight="true"
android:layout_alignParentEnd="true"
android:layout_above="@+id/textView_population"
android:layout_margin="5dp" />
```

<TextView

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textAppearance="?android:attr/textAppearanceSmall"
android:text="Population: ..."
android:id="@+id/textView_population"
android:layout_alignBottom="@+id/imageView_flag"
android:layout_alignLeft="@+id/textView_countryName"
android:layout_alignStart="@+id/textView_countryName"
android:layout_alignParentRight="true"
android:layout_alignParentEnd="true"
android:layout_margin="5dp" />
```

</RelativeLayout>

Jeux d'essai :

10:55



## PaysList



Vietnam

Population: 98000000



United States

Population: 320000000



Russia

Population: 142000000