

## ELEMENTS DE SOLUTION EXERCICE

### model/Personne.java

```
package com.example.myapplication.model;
import java.io.Serializable;
import java.util.Arrays;
import java.util.Objects;
//ON serialise la classe pour l'utiliser avec des intents
public class Personne implements Serializable {
    private int id;
    private String nom;
    private String prenom;
    private int age;
    private String sitfam;
    private String[] formation;
    private String pays;
    public Personne(int id, String nom, String prenom, int age, String sitfam,
String[] formation, String pays) {
        this.id = id;
        this.nom = nom;
        this.prenom = prenom;
        this.age = age;
        this.sitfam = sitfam;
        this.formation = formation;
        this.pays = pays;
    }
    public int getId() {
        return id;
    }
    public void setId(int id) {
        this.id = id;
    }
    public String getNom() {
        return nom;
    }
    public void setNom(String nom) {
        this.nom = nom;
    }
    public String getPrenom() {
        return prenom;
    }
    public void setPrenom(String prenom) {
        this.prenom = prenom;
    }
    public int getAge() {
        return age;
    }
    public void setAge(int age) {
        this.age = age;
    }
    public String getSitfam() {
        return sitfam;
    }
    public void setSitfam(String sitfam) {
```

```

        this.sitfam = sitfam;
    }
    public String[] getFormation() {
        return formation;
    }
    public void setFormation(String[] formation) {
        this.formation = formation;
    }
    public String getPays() {
        return pays;
    }
    public void setPays(String pays) {
        this.pays = pays;
    }
    //pour les besoins du test (id)
    @Override
    public String toString() {
        return id + nom ;
    }
    @Override
    public boolean equals(Object o) {
        if (this == o) return true;
        if (o == null || getClass() != o.getClass()) return false;
        Personne personne = (Personne) o;
        return age == personne.age &&
            Objects.equals(nom, personne.nom) &&
            Objects.equals(prenom, personne.prenom) &&
            Objects.equals(sitfam, personne.sitfam) &&
            Arrays.equals(formation, personne.formation) &&
            Objects.equals(pays, personne.pays);
    }
}

```

#### controller/Dao.java

```

package com.example.myapplication.controller;
import com.example.myapplication.model.Personne;
import java.util.ArrayList;
public interface Dao {
    public void insertPersonne(Personne p);
    public void updatePersonne(Personne p);
    public void removePersonne(int id);
    public ArrayList<Personne> listePersonne();
    public Personne findPersonne(int id);
    public Personne existePersonne(Personne p);
}

```

#### controller/DaoPersonne.java

```

package com.example.myapplication.controller;
import com.example.myapplication.model.Personne;
import java.util.ArrayList;
public class DaoPersonne implements Dao {

```

```

ArrayList<Personne> liste;
public DaoPersonne(ArrayList<Personne> liste) {
    this.liste = liste;
}
@Override
public void insertPersonne(Personne p) {
    liste.add(p);
}
@Override
public void updatePersonne(Personne p) {
    for (Personne pl:liste){
        if (pl.getId()==p.getId()){
            pl.setNom(p.getNom());
            pl.setPrenom(p.getPrenom());
            pl.setAge(p.getAge());
            pl.setSitfam(p.getSitfam());
            for (int i=0;i<pl.getFormation().length;i++) pl.getFormation()
[i]=p.getFormation()[i];
            pl.setPays(p.getPays());
        }
    }
}
@Override
public void removePersonne(int id) {
    for (Personne pl:liste) if (pl.getId()== id) liste.remove(pl);
}
@Override
public ArrayList<Personne> listePersonne() {
    return this.liste;
}
@Override
public Personne findPersonne(int id) {
    for (Personne pl:liste) if (pl.getId()== id) return pl;
    return null;
}
@Override
public Personne existePersonne(Personne p) {
    Personne p2=null;
    for (Personne pl:liste) if (pl.equals(p)) p2=pl;
    return p2;
}
}

```

### activity\_main.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"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

```

```

<TextView
    android:id="@+id/lnom"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_alignParentTop="true"
    android:layout_marginStart="21dp"
    android:layout_marginLeft="21dp"
    android:layout_marginTop="25dp"
    android:text="nom"
    tools:text="nom" />
<EditText
    android:id="@+id/enom"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignBaseline="@id/lnom"
    android:layout_alignParentTop="true"
    android:layout_marginStart="91dp"
    android:layout_marginLeft="91dp"
    android:layout_marginTop="134dp"
    android:layout_toEndOf="@+id/lnom"
    android:layout_toRightOf="@+id/lnom"
    android:ems="10"
    android:inputType="textPersonName" />
<TextView
    android:id="@+id/lprenom"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/lnom"
    android:layout_alignLeft="@id/lnom"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_marginStart="21dp"
    android:layout_marginLeft="21dp"
    android:layout_marginTop="29dp"
    android:text="prenom" />
<EditText
    android:id="@+id/eprenom"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/enom"
    android:layout_alignBaseline="@id/lprenom"
    android:layout_marginStart="70dp"
    android:layout_marginLeft="1dp"
    android:layout_marginTop="13dp"
    android:layout_toEndOf="@+id/lprenom"
    android:layout_toRightOf="@+id/lprenom"
    android:ems="10"
    android:inputType="textPersonName" />
<EditText
    android:id="@+id/eage"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/eprenom"

```

```

        android:layout_alignBaseline="@id/lage"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_marginTop="4dp"
        android:layout_marginEnd="59dp"
        android:layout_marginRight="59dp"
        android:ems="10"
        android:inputType="textPersonName" />
<TextView
    android:id="@+id/lage"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/lprenom"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_marginStart="22dp"
    android:layout_marginLeft="22dp"
    android:layout_marginTop="31dp"
    android:text="age" />
<RadioGroup
    android:id="@+id/rg"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/lsitfam"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="24dp"
    android:layout_marginLeft="24dp"
    android:layout_marginTop="34dp"
    android:orientation="horizontal">
    <RadioButton
        android:id="@+id/r1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="marie" />
    <RadioButton
        android:id="@+id/r2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="celibataire" />
    <RadioButton
        android:id="@+id/r3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="veuf" />
    <RadioButton
        android:id="@+id/r4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_centerVertical="true"
        android:text="divorce" />
</RadioGroup>
<TextView
    android:id="@+id/lsitfam"

```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/lage"
        android:layout_alignParentStart="true"
        android:layout_alignParentLeft="true"
        android:layout_marginStart="20dp"
        android:layout_marginLeft="20dp"
        android:layout_marginTop="35dp"
        android:text="situation familiale:" />
<LinearLayout
    android:id="@+id/l1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/lformation"
    android:layout_alignParentStart="true"
    android:layout_marginStart="7dp"
    android:layout_marginTop="28dp"
    android:orientation="horizontal">
    <CheckBox
        android:id="@+id/c1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Francais" />
    <CheckBox
        android:id="@+id/c2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_weight="1"
        android:text="Allemand" />
    <CheckBox
        android:id="@+id/c3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Anglais" />
    <CheckBox
        android:id="@+id/c4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_weight="1"
        android:text="Espagnol" />
</LinearLayout>
<TextView
    android:id="@+id/lformation"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/rg"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_marginStart="31dp"
    android:layout_marginLeft="31dp"
    android:layout_marginTop="41dp"

```

```

        android:text="formation:" />
<TextView
    android:id="@+id/lpays"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/l1"
    android:layout_alignParentStart="true"
    android:layout_marginStart="18dp"
    android:layout_marginTop="35dp"
    android:text="pays:" />
<Spinner
    android:id="@+id/spinner"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/l1"
    android:layout_marginStart="64dp"
    android:layout_marginLeft="64dp"
    android:layout_marginTop="36dp"
    android:layout_toEndOf="@+id/lpays"
    android:layout_toRightOf="@+id/lpays" />
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/spinner"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="38dp"
    android:text="Button" />
</RelativeLayout>

```

## activity2\_main.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=".Main2Activity">
    <ListView
        android:id="@+id/liste"
        android:layout_width="389dp"
        android:layout_height="503dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="60dp"

```

```

        android:text="retour"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/Liste" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

## MainActivity.java

```

package com.example.myapplication;
import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import android.app.Activity;
import android.content.Intent;
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.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.Spinner;
import android.widget.Toast;
import com.example.myapplication.controller.DaoPersonne;
import com.example.myapplication.model.Personne;
import java.util.ArrayList;
public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    //Defini les View , et l'adapter
    EditText nom;
    EditText prenom;
    EditText age;
    RadioButton br1, br2, br3, br4;
    CheckBox c1, c2, c3, c4;
    Spinner s;
    ArrayList<Personne> listePersonne = new ArrayList<Personne>();
    String[] listePays = {"Italie", "France", "Angleterre", "Portugal"};
    ArrayAdapter<String> aa;
    //tableau destine a contenir le texte des formation coche
    String[] formation = new String[4];
    //i pour autoincrementer l'id
    int i = 0;
    Personne p;
    //ON instancie DaoPersonne pour utiliser les methodes insert,.....
    DaoPersonne dao = new DaoPersonne(listePersonne);
    //c'est un ID associe a l'intent
    int intent1 = 1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        initialiser();
    }
    public void initialiser() {

```



```

//On reference tous les elements défini dans activity_main, car
//la methode setContentView les a converti en objets java les
//findViewById se place apres setContentView
nom = findViewById(R.id.enom);
prenom = findViewById(R.id.eprenom);
age = findViewById(R.id.eage);
br1 = findViewById(R.id.r1);
br2 = findViewById(R.id.r2);
br3 = findViewById(R.id.r3);
br4 = findViewById(R.id.r4);
c1 = findViewById(R.id.c1);
c2 = findViewById(R.id.c2);
c3 = findViewById(R.id.c3);
c4 = findViewById(R.id.c4);
s = findViewById(R.id.spinner);
aa = new ArrayAdapter<String>(this, android.R.layout.simple_list_item_1,
ListePays);
s.setAdapter(aa);
Button bouton = findViewById(R.id.button3);
bouton.setOnClickListener(this);
}
@Override
public void onClick(View v) {
//On recupere le contenu des zones de texte
String vnom = nom.getText().toString();
String vprenom = prenom.getText().toString();
//on convertit en entier
int vage = Integer.parseInt(age.getText().toString());
//pour recuperer le text de la case a cocher.
String sitfam = br1.isChecked() ? br1.getText().toString() : "";
sitfam += br2.isChecked() ? br2.getText().toString() : "";
sitfam += br3.isChecked() ? br3.getText().toString() : "";
sitfam += br4.isChecked() ? br4.getText().toString() : "";
//pour recuperer les formations cochées
formation[0] = c1.isChecked() ? c1.getText().toString() : "";
formation[1] = c2.isChecked() ? c2.getText().toString() : "";
formation[2] = c3.isChecked() ? c3.getText().toString() : "";
formation[3] = c4.isChecked() ? c4.getText().toString() : "";
//pour recuperer l'item selectionnee
String pays = s.getSelectedItem().toString();
//on instancie un objet Personne
p = new Personne(++i, vnom, vprenom, vage, sitfam, formation, pays);
//onverifie si la personne existe
Personne p2 = dao.existePersonne(p);
if (p2 == null) dao.insertPersonne(p);
else Toast.makeText(this, "Personne deja existante",
Toast.LENGTH_LONG).show();
for (Personne p1 : dao.listePersonne()) {
Log.d("Personne", p1.toString());
}
//On crée un Intent avec retour de resultat
Intent intent = new Intent(MainActivity.this, Main2Activity.class);
intent.putExtra("liste", dao.listePersonne());
startActivityForResult(intent, intent1);
}

```

```

@Override
protected void onActivityResult(int requestCode, int resultCode, @Nullable
Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    //Les zones du formulaire sont remises a 0
    nom.setText("");
    prenom.setText("");
    age.setText("");
    br1.setChecked(false);
    br2.setChecked(false);
    br3.setChecked(false);
    br4.setChecked(false);
    c1.setChecked(false);
    c2.setChecked(false);
    c3.setChecked(false);
    c4.setChecked(false);
    s.setSelection(0);
    if (resultCode == Activity.RESULT_OK) {
        //ON recupere l'indice de l'objet Personne dans ArrayList
        int numero = Integer.parseInt(data.getStringExtra("resultat"));
        Personne pers = dao.findPersonne(numero);
        nom.setText(pers.getNom());
        prenom.setText(pers.getPrenom());
        age.setText(String.valueOf(pers.getAge()));
        br1.setChecked(pers.getSitfam().equals("marie"));
        br2.setChecked(pers.getSitfam().equals("celibataire"));
        br3.setChecked(pers.getSitfam().equals("veuf"));
        br4.setChecked(pers.getSitfam().equals("divorce"));
        c1.setChecked(pers.getFormation()[0]!="");
        c2.setChecked(pers.getFormation()[1]!="");
        c3.setChecked(pers.getFormation()[2]!="");
        c4.setChecked(pers.getFormation()[3]!="");
        for (int i=0;i<ListePays.length;i++) {
            if (ListePays[i]==pers.getPays()) s.setSelection(i);
        }
        Log.d("resultat2","fff "+pers.getSitfam().equals("marie"));
    }
}
}
}

```

## Main2Activity.java

```

package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ListView;
import com.example.myapplication.model.Personne;
import java.util.ArrayList;

```

```

//on a implemente 2 interfaces pour les listener
public class Main2Activity extends AppCompatActivity implements
View.OnClickListener, AdapterView.OnItemClickListener {
    //ON doit recuperer un ArrayList de personne
    ArrayList<Personne> listePersonne;
    ListView liste;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        //on recupere l'intent qui a declanche l'activity ainsi que la liste
        //qui a été envoye
        Intent intent=getIntent();
        listePersonne= (ArrayList<Personne>) intent.getSerializableExtra("liste");
        setContentView(R.layout.activity_main2);
        //On recupere la listView, on defini un adapter qui se base sur
        listepersonne
        //et on applique l'adapter à la liste
        liste =(ListView) findViewById(R.id.liste);
        ArrayAdapter aa=new
ArrayAdapter(this, android.R.layout.select_dialog_singlechoice, listePersonne);
        liste.setAdapter(aa);
        Button bouton=findViewById(R.id.button);
        //on ajoute les listener au bouton et a la liste
        bouton.setOnClickListener(this);
        liste.setOnItemClickListener(this);
    }
    //un simple retour si on a rien choisi
    @Override
    public void onClick(View v) {
        finish();
    }
    @Override
    public void onItemClick(AdapterView<?> parent, View view, int position, long
id) {
        //on recupere l'id de la personne dans la liste
        String numero= String.valueOf(listePersonne.get(position).getId());
        //on cree un intent pour renvoyer la position (numero) sur laquelle on a
        //cliqué vers la MainActivity
        Intent intent=new Intent();
        setResult(Activity.RESULT_OK, intent);
        //Alternative , on aurait pu renvoyer directement la personne
        //selectionné intent.putExtra("Personne", listePersonne.get(position));
        intent.putExtra("resultat", numero);
        finish();
    }
}

```