**MAD Lab 04**

**Code:**

**MainActivity.java**

package com.example.k033\_mad\_lab04;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.AdapterView;  
import android.widget.ArrayAdapter;  
import android.widget.ImageView;  
import android.widget.ListView;  
import android.widget.TextView;  
import androidx.annotation.NonNull;  
import androidx.annotation.Nullable;  
import androidx.appcompat.app.AppCompatActivity;  
import java.util.ArrayList;  
  
public class MainActivity extends AppCompatActivity {  
 ListView listView;  
 ArrayList<Person> personList;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 listView = findViewById(R.id.listView);  
 personList = new ArrayList<>();  
  
 // Sample data  
 personList.add(new Person("Quiet Kid", "1234567890", "[AK-47inmy@bag.com](mailto:AK-47inmy@bag.com)", R.drawable.default\_image));  
 personList.add(new Person("John Pork", "9876543210", "[johnporkis@calling.com](mailto:johnporkis@calling.com)", R.drawable.john\_pork));  
 personList.add(new Person("Freak Bob", "6942069420", "[heyitsme@freakbob.com](mailto:heyitsme@freakbob.com)", R.drawable.freakbob));  
  
 PersonAdapter adapter = new PersonAdapter(this, personList);  
 listView.setAdapter(adapter);  
  
 listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
 @Override  
 public void onItemClick(AdapterView<?> parent, View view, int position, long id) {  
 Intent intent = new Intent(MainActivity.this, DetailActivity.class);  
 intent.putExtra("person", personList.get(position));  
 startActivity(intent);  
 }  
 });  
 }  
}

**FirstFragment.java**

package com.example.k033\_mad\_lab04;  
  
import android.os.Bundle;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
  
import androidx.annotation.NonNull;  
import androidx.fragment.app.Fragment;  
import androidx.navigation.fragment.NavHostFragment;  
  
import com.example.k033\_mad\_lab04.databinding.FragmentFirstBinding;  
  
public class FirstFragment extends Fragment {  
  
 private FragmentFirstBinding binding;  
  
 @Override  
 public View onCreateView(  
 LayoutInflater inflater, ViewGroup container,  
 Bundle savedInstanceState  
 ) {  
  
 binding = FragmentFirstBinding.inflate(inflater, container, false);  
 return binding.getRoot();  
  
 }  
  
 public void onViewCreated(@NonNull View view, Bundle savedInstanceState) {  
 super.onViewCreated(view, savedInstanceState);  
  
 binding.buttonFirst.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 NavHostFragment.*findNavController*(FirstFragment.this)  
 .navigate(R.id.action\_FirstFragment\_to\_SecondFragment);  
 }  
 });  
 }  
  
 @Override  
 public void onDestroyView() {  
 super.onDestroyView();  
 binding = null;  
 }  
  
}

**DetailActivity.java**

package com.example.k033\_mad\_lab04;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.ImageView;  
import android.widget.TextView;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class DetailActivity extends AppCompatActivity {  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_detail);  
  
 ImageView detailImage = findViewById(R.id.detailImage);  
 TextView detailName = findViewById(R.id.detailName);  
 TextView detailContact = findViewById(R.id.detailContact);  
 TextView detailEmail = findViewById(R.id.detailEmail);  
  
 Intent intent = getIntent();  
 if (intent != null && intent.hasExtra("person")) {  
 Person person = (Person) intent.getSerializableExtra("person");  
 detailName.setText(person.getName());  
 detailContact.setText(person.getContact());  
 detailEmail.setText(person.getEmail());  
 detailImage.setImageResource(person.getImageResId());  
 }  
 }  
}

**Person.java**

package com.example.k033\_mad\_lab04;  
  
import java.io.Serializable;  
  
public class Person implements Serializable {  
 private String name;  
 private String contact;  
 private String email;  
 private int imageResId;  
  
 public Person(String name, String contact, String email, int imageResId) {  
 this.name = name;  
 this.contact = contact;  
 this.email = email;  
 this.imageResId = imageResId;  
 }  
  
 public String getName() { return name; }  
 public String getContact() { return contact; }  
 public String getEmail() { return email; }  
 public int getImageResId() { return imageResId; }  
}

**PersonAdapter.java**

package com.example.k033\_mad\_lab04;  
  
import android.content.Context;  
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.ArrayList;  
  
public class PersonAdapter extends BaseAdapter {  
 private Context context;  
 private ArrayList<Person> personList;  
  
 public PersonAdapter(Context context, ArrayList<Person> personList) {  
 this.context = context;  
 this.personList = personList;  
 }  
  
 @Override  
 public int getCount() {  
 return personList.size();  
 }  
  
 @Override  
 public Object getItem(int position) {  
 return personList.get(position);  
 }  
  
 @Override  
 public long getItemId(int position) {  
 return position;  
 }  
  
 @Override  
 public View getView(int position, View convertView, ViewGroup parent) {  
 if (convertView == null) {  
 convertView = LayoutInflater.*from*(context).inflate(R.layout.list\_item, parent, false);  
 }  
  
 ImageView personImage = convertView.findViewById(R.id.personImage);  
 TextView personName = convertView.findViewById(R.id.personName);  
  
 Person person = personList.get(position);  
 personImage.setImageResource(person.getImageResId());  
 personName.setText(person.getName());  
  
 return convertView;  
 }  
}

**SecondFragment.java**

package com.example.k033\_mad\_lab04;  
  
import android.os.Bundle;  
import android.view.LayoutInflater;  
import android.view.View;  
import android.view.ViewGroup;  
  
import androidx.annotation.NonNull;  
import androidx.fragment.app.Fragment;  
import androidx.navigation.fragment.NavHostFragment;  
  
import com.example.k033\_mad\_lab04.databinding.FragmentSecondBinding;  
  
public class SecondFragment extends Fragment {  
  
 private FragmentSecondBinding binding;  
  
 @Override  
 public View onCreateView(  
 LayoutInflater inflater, ViewGroup container,  
 Bundle savedInstanceState  
 ) {  
  
 binding = FragmentSecondBinding.inflate(inflater, container, false);  
 return binding.getRoot();  
  
 }  
  
 public void onViewCreated(@NonNull View view, Bundle savedInstanceState) {  
 super.onViewCreated(view, savedInstanceState);  
  
 binding.buttonSecond.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 NavHostFragment.*findNavController*(SecondFragment.this)  
 .navigate(R.id.action\_SecondFragment\_to\_FirstFragment);  
 }  
 });  
 }  
  
 @Override  
 public void onDestroyView() {  
 super.onDestroyView();  
 binding = null;  
 }  
  
}

**Activity\_main.xml**

<?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"  
 android:padding="10dp"  
 android:textAlignment="center">  
  
 <TextView  
 android:layout\_width="387dp"  
 android:layout\_height="wrap\_content"  
 android:text="Contact List"  
 android:textAlignment="center"  
 android:textSize="30dp"  
 android:textStyle="bold" />  
  
 <ListView  
 android:id="@+id/listView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:divider="@android:color/darker\_gray"  
 android:dividerHeight="1dp" />  
</LinearLayout>

**Activity\_detail.xml**

<?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"  
 android:padding="20dp">  
  
 <ImageView  
 android:id="@+id/detailImage"  
 android:layout\_width="150dp"  
 android:layout\_height="150dp"  
 android:src="@mipmap/ic\_launcher"  
 android:layout\_gravity="center"/>  
  
 <TextView  
 android:id="@+id/detailName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Name"  
 android:textSize="20sp"  
 android:textStyle="bold"  
 android:layout\_marginTop="10dp"/>  
  
 <TextView  
 android:id="@+id/detailContact"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Contact Number"  
 android:textSize="16sp"  
 android:layout\_marginTop="10dp"/>  
  
 <TextView  
 android:id="@+id/detailEmail"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Email ID"  
 android:textSize="16sp"  
 android:layout\_marginTop="10dp"/>  
</LinearLayout>

**List\_item.xml**

<?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="wrap\_content"  
 android:orientation="horizontal"  
 android:padding="10dp">  
  
 <ImageView  
 android:id="@+id/personImage"  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:src="@mipmap/ic\_launcher"  
 android:scaleType="centerCrop"/>  
  
 <TextView  
 android:id="@+id/personName"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="match\_parent"  
 android:text="Person Name"  
 android:textSize="18sp"  
 android:layout\_marginStart="10dp"  
 android:gravity="center\_vertical"/>  
</LinearLayout>

**Output:**



