Mobile Application Development

CST 447-2

Assignment I

UWU/CST/16/045

Computer Science and Technology Degree Program

Department of Computer Science and Informatics

BLOCKBUSTERS

Create New Account

Name

Date of Birth

NEXT

BLOCKBUSTERS

Create New Account

Name

Sudaraka

Date of Birth

1996/09/08

NEXT

BLOCKBUSTERS

Personal Details

Address

Passara Road, Badulla

NIC

96249678v

Sex

Male

Female

Other

BLOCKBUSTERS

Personal Details

Address

Passara Road, Badulla
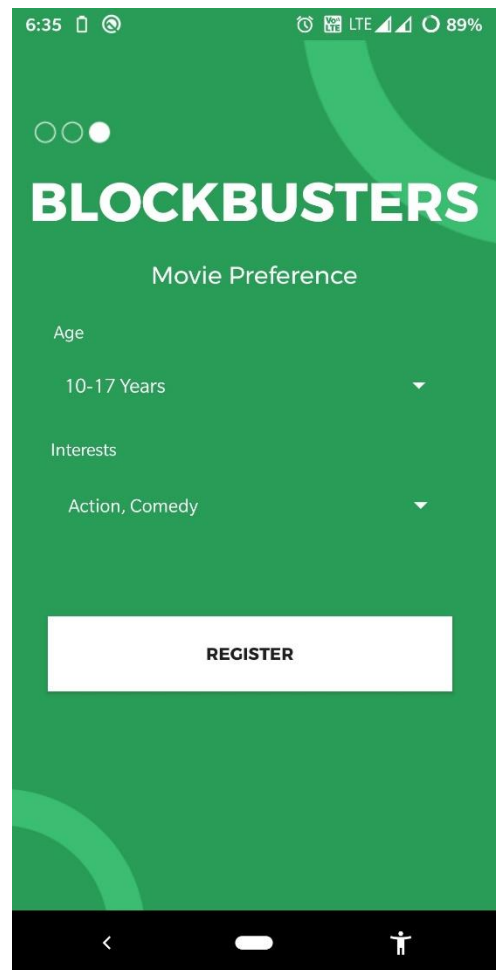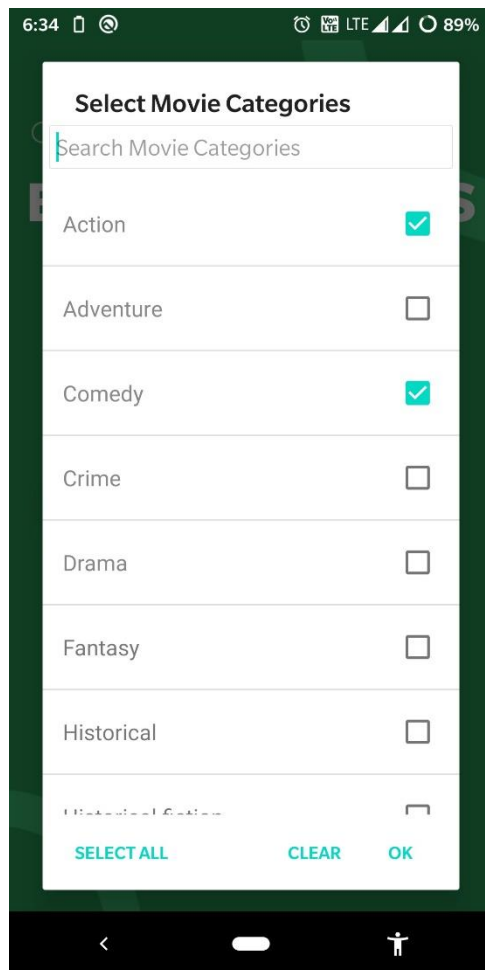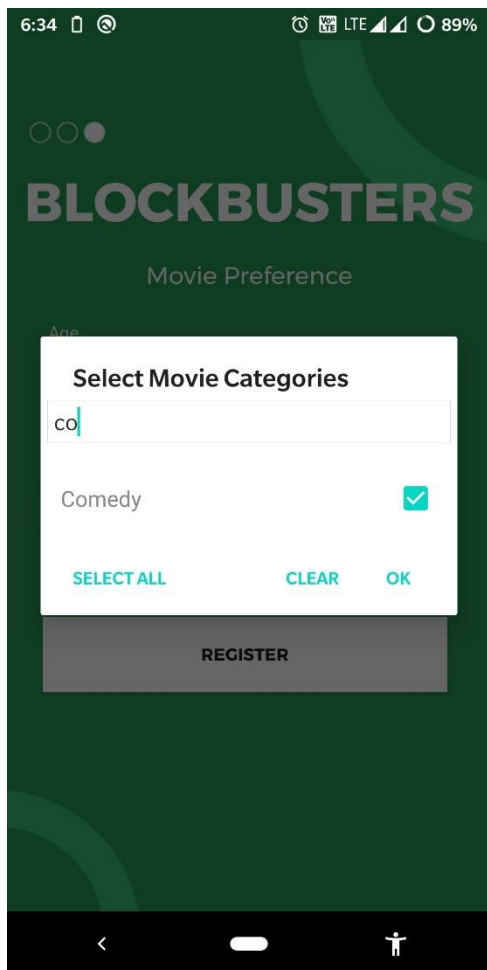
NIC

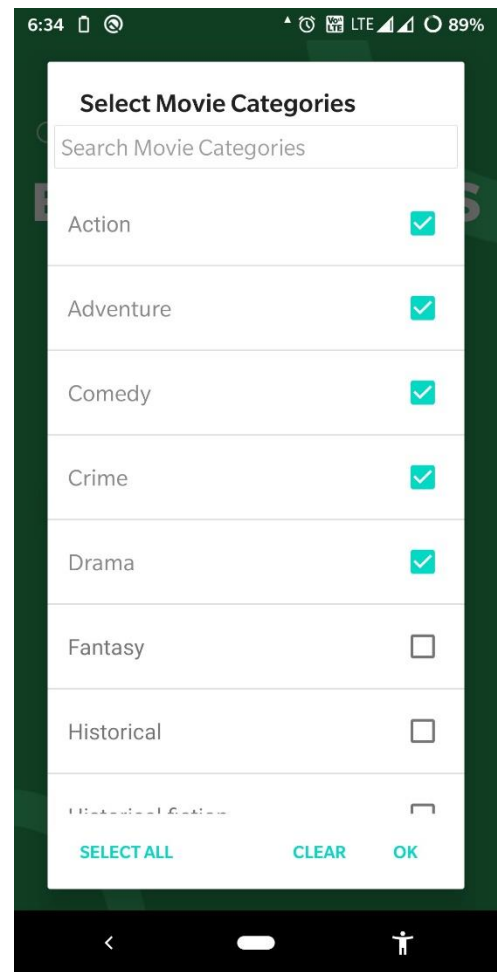96249678v

Sex

Male

NEXT

Screen 1:

7:48

○○●

BLOCKBUSTERS

Movie Preference

Age

10-17 Years ▼

Interests

Select Movie Categories ▼

REGISTER

Screen 2:

6:34

○○●

BLOCKBUSTERS

Movie Preference

Age

10-17 Years ▼

18-40 Years

41-60 Years

41-60 Years

60-100 Years

Screen 3:

6:34

Select Movie Categories

Search Movie Categories

Action ☑

Adventure ☑

Comedy ☑

Crime ☑

Drama ☑

Fantasy ☐

Historical ☐

Historical fiction ☐

SELECT ALL   CLEAR   OK

Screen 4:

6:34

○○●

BLOCKBUSTERS

Movie Preference

Age

Select Movie Categories

co

Comedy ☑

SELECT ALL   CLEAR   OK

REGISTER

Screen 5:

6:34

Select Movie Categories

Search Movie Categories

Action ☑

Adventure ☐

Comedy ☑

Crime ☐

Drama ☐

Fantasy ☐

Historical ☐

Historical fiction ☐

SELECT ALL   CLEAR   OK

Screen 6:

6:35

○○●

BLOCKBUSTERS

Movie Preference

Age

10-17 Years ▼

Interests

Action, Comedy ▼

REGISTER

Interfaces(horizontal)

Source Code

Structure
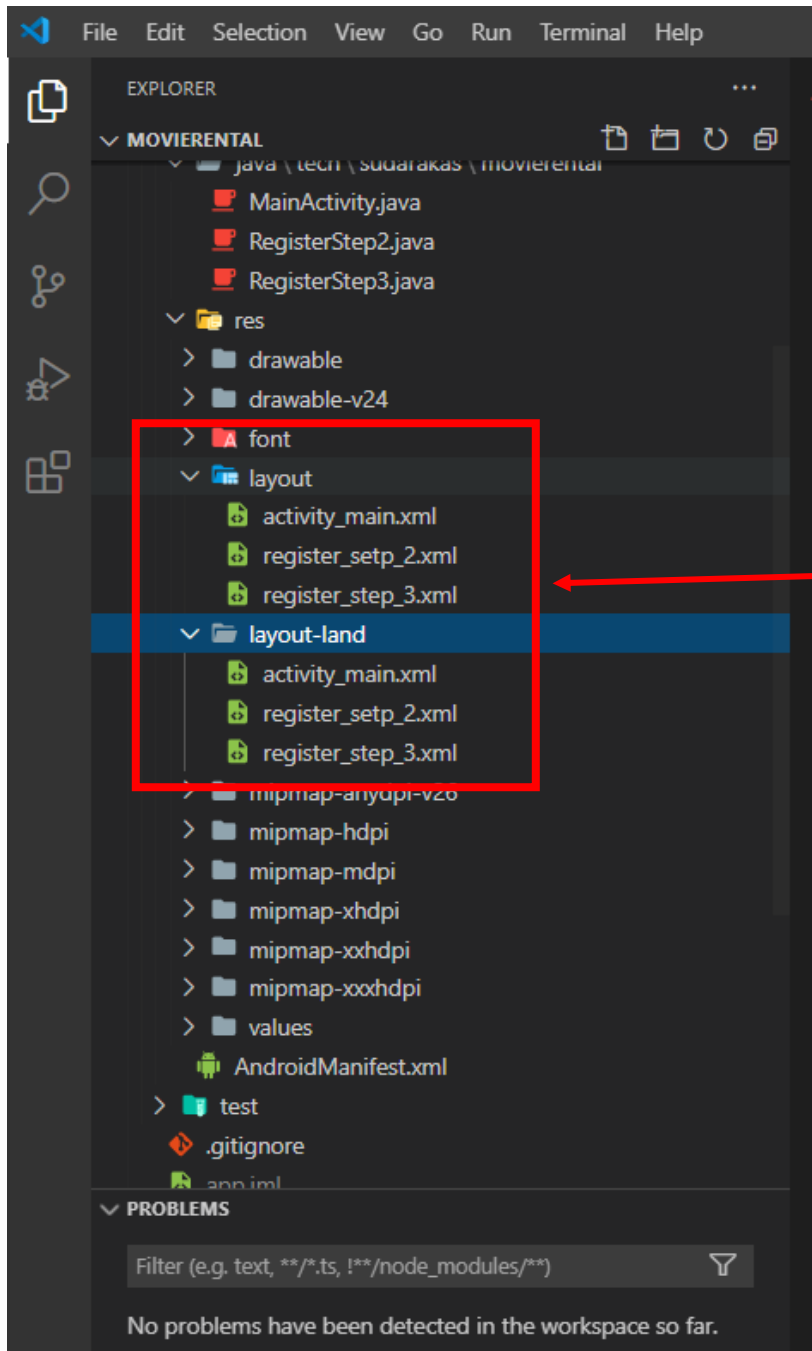
Separate layout files for portrait and landscape mode

Register Stage – I

```java
package tech.sudarakas.movierental;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {

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

        btnNextTwo = (Button) findViewById(R.id.btnNextTwo);

        btnNextTwo.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent next = new Intent(getApplicationContext(), RegisterStep2.class);
                startActivity(next);
            }
        });
    }
}
```

```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"
    android:background="@color/colorPrimary"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="414dp"
        android:layout_height="359dp"
        android:layout_marginStart="196dp"
        android:layout_marginBottom="108dp"
        android:baselineAlignBottom="true"
        app:layout_constraintBottom_toTopOf="@+id/editName"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/rec" />

    <ImageView
        android:id="@+id/imageView8"
        android:layout_width="299dp"
        android:layout_height="216dp"
        android:layout_marginTop="40dp"
        android:layout_marginEnd="212dp"
        android:baselineAlignBottom="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/btnNextTwo"
        app:srcCompat="@drawable/rec" />

    <TextView
        android:id="@+id/mainText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="88dp"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/comapnyName"
        android:textAllCaps="true"
        android:textColor="@color/colorWhite"
        android:textSize="45sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:fontFamily="@font/montserrat"
        android:text="@string/newaccount"
        android:textColor="@color/colorWhite"
        android:textSize="20sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/mainText" />

    <EditText
        android:id="@+id/editName"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="text"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.495"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/addressText" />

    <TextView
        android:id="@+id/addressText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="76dp"
        android:text="@string/Name"
        android:textColor="@color/colorWhite"
        android:textSize="14sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.104"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <EditText
        android:id="@+id/editDOB"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="date"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.486"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nicText" />

    <TextView
        android:id="@+id/nicText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:text="@string/birthday"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.117"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editName" />

    <Button
        android:id="@+id/btnNextTwo"
        android:layout_width="301dp"
        android:layout_height="56dp"
        android:layout_marginTop="44dp"
        android:autoText="true"
        android:background="@color/colorWhite"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/next"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.463"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editDOB" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="90dp"
        android:layout_height="41dp"
        app:layout_constraintBottom_toTopOf="@+id/mainText"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="1.0"
        app:srcCompat="@drawable/step13" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

```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"
    android:background="@color/colorPrimary"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/mainText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/comapnyName"
        android:textAllCaps="true"
        android:textColor="@color/colorWhite"
        android:textSize="40sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.092"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="4dp"
        android:fontFamily="@font/montserrat"
        android:text="@string/newaccount"
        android:textColor="@color/colorWhite"
        android:textSize="18sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.067"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/mainText" />

    <EditText
        android:id="@+id/editName"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="text"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.085"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/addressText" />

    <TextView
        android:id="@+id/addressText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="40dp"
        android:text="@string/Name"
        android:textColor="@color/colorWhite"
        android:textSize="14sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.053"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <EditText
        android:id="@+id/editDOB"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="date"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/editName"
        app:layout_constraintTop_toBottomOf="@+id/nicText" />

    <TextView
        android:id="@+id/nicText"
        android:layout_width="97dp"
        android:layout_height="23dp"
        android:layout_marginTop="36dp"
        android:text="@string/birthday"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.552"
        app:layout_constraintStart_toEndOf="@+id/addressText"
        tools:layout_constraintTop_toBottomOf="@+id/textView2" />

    <Button
        android:id="@+id/btnNextTwo"
        android:layout_width="301dp"
        android:layout_height="56dp"
        android:layout_marginTop="60dp"
        android:layout_marginBottom="40dp"
        android:autoText="true"
        android:background="@color/colorWhite"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/next"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editName"
        app:layout_constraintVertical_bias="0.0" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="278dp"
        android:layout_height="260dp"
        android:layout_marginStart="548dp"
        app:layout_constraintBottom_toTopOf="@+id/nicText"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/rec" />

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="210dp"
        android:layout_height="173dp"
        android:layout_marginTop="80dp"
        android:layout_marginEnd="588dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editDOB"
        app:srcCompat="@drawable/rec" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="90dp"
        android:layout_height="41dp"
        android:layout_marginTop="16dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.975"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/step13" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Register Stage – II

```java
package tech.sudarakas.movierental;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.Spinner;
import android.widget.TextView;

public class RegisterStep2 extends AppCompatActivity {

    private Button btnNextFinal;
    private Spinner spinnerObject;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.register_setp_2);

        spinnerObject = (Spinner) findViewById(R.id.genderSpinner);
        spinnerObject.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            @Override
            public void onNothingSelected(AdapterView<?> parent) {

            }
            @Override
            public void onItemSelected(AdapterView<?> parentView, View selectedItemView, int position, long id) {
                ((TextView)parentView.getChildAt(0)).setTextColor(Color.WHITE);
            }
        });

        btnNextFinal = (Button) findViewById(R.id.btnNextFinal);

        btnNextFinal.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent next = new Intent(getApplicationContext(), RegisterStep3.class);
                startActivity(next);
            }
        });
    }
}
```

```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"
    android:background="@color/colorPrimary"
    tools:context=".RegisterStep2">

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="414dp"
        android:layout_height="359dp"
        android:layout_marginStart="188dp"
        android:baselineAlignBottom="true"
        app:layout_constraintBottom_toBottomOf="@+id/mainText"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/rec" />

    <ImageView
        android:id="@+id/imageView8"
        android:layout_width="299dp"
        android:layout_height="216dp"
        android:layout_marginTop="40dp"
        android:layout_marginEnd="212dp"
        android:baselineAlignBottom="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/btnNextFinal"
        app:srcCompat="@drawable/rec" />

    <TextView
        android:id="@+id/mainText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="88dp"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/comapnyName"
        android:textAllCaps="true"
        android:textColor="@color/colorWhite"
        android:textSize="45sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:fontFamily="@font/montserrat"
        android:text="@string/personaldetails"
        android:textColor="@color/colorWhite"
        android:textSize="20sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/mainText" />

    <EditText
        android:id="@+id/editName"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="textMultiLine"
        android:maxLines="2"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.495"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/addressText" />

    <TextView
        android:id="@+id/addressText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:text="@string/address"
        android:textColor="@color/colorWhite"
        android:textSize="14sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.104"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <EditText
        android:id="@+id/editDOB"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:textColor="@color/colorWhite"
        android:ems="10"
        android:inputType="text"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.495"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nicText" />

    <TextView
        android:id="@+id/nicText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:text="@string/nic"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.095"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editName" />

    <TextView
        android:id="@+id/nicText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:text="@string/sex"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.095"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editDOB" />

    <Button
        android:id="@+id/btnNextFinal"
        android:layout_width="301dp"
        android:layout_height="56dp"
        android:layout_marginTop="40dp"
        android:autoText="true"
        android:background="@color/colorWhite"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/next"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.527"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/genderSpinner" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="90dp"
        android:layout_height="41dp"
        app:layout_constraintBottom_toTopOf="@+id/mainText"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="1.0"
        app:srcCompat="@drawable/loading32" />

    <Spinner
        android:id="@+id/genderSpinner"
        android:layout_width="296dp"
        android:layout_height="46dp"
        android:backgroundTint="@color/colorWhite"
        android:entries="@array/gender"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.495"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nicText2" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

```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"
    android:background="@color/colorPrimary"
    tools:context=".RegisterStep2">

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="354dp"
        android:layout_height="301dp"
        android:layout_marginStart="488dp"
        android:baselineAlignBottom="true"
        app:layout_constraintBottom_toTopOf="@+id/editDOB"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/rec"
        tools:ignore="MissingConstraints" />

    <ImageView
        android:id="@+id/imageView8"
        android:layout_width="217dp"
        android:layout_height="159dp"
        android:layout_marginTop="68dp"
        android:layout_marginEnd="604dp"
        android:baselineAlignBottom="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/interestSpinner"
        app:srcCompat="@drawable/rec" />

    <TextView
        android:id="@+id/mainText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/comapnyName"
        android:textAllCaps="true"
        android:textColor="@color/colorWhite"
        android:textSize="40sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.092"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/montserrat"
        android:text="@string/personaldetails"
        android:textColor="@color/colorWhite"
        android:textSize="18sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.061"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/mainText" />

    <EditText
        android:id="@+id/editName"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:layout_marginStart="36dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="textMultiLine"
        android:maxLines="2"
        android:textColor="@color/colorWhite"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/addressText" />

    <TextView
        android:id="@+id/addressText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        android:text="@string/address"
        android:textColor="@color/colorWhite"
        android:textSize="14sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.055"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <EditText
        android:id="@+id/editDOB"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="text"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.728"
        app:layout_constraintStart_toEndOf="@+id/editName"
        app:layout_constraintTop_toBottomOf="@+id/nicText" />

    <TextView
        android:id="@+id/nicText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:layout_marginEnd="300dp"
        android:text="@string/nic"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <TextView
        android:id="@+id/nicText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        android:text="@string/sex"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.052"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editDOB" />

    <Button
        android:id="@+id/btnNextFinal"
        android:layout_width="301dp"
        android:layout_height="56dp"
        android:autoText="true"
        android:background="@color/colorWhite"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/next"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/genderSpinner"
        app:layout_constraintVertical_bias="0.139" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="90dp"
        android:layout_height="41dp"
        app:layout_constraintBottom_toTopOf="@+id/mainText"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.992"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.0"
        app:srcCompat="@drawable/loading32" />

    <Spinner
        android:id="@+id/genderSpinner"
        android:layout_width="296dp"
        android:layout_height="46dp"
        android:backgroundTint="@color/colorWhite"
        android:entries="@array/gender"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.082"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nicText2" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

```java
package tech.sudarakas.movierental;

import android.annotation.SuppressLint;
import android.graphics.Color;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.AdapterView;

import android.widget.Spinner;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

import com.androidbuts.multispinnerfilter.KeyPairBoolData;
import com.androidbuts.multispinnerfilter.MultiSpinnerSearch;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.LinkedHashSet;
import java.util.List;

public class RegisterStep3 extends AppCompatActivity{

    private Spinner spinnerObject;

    @SuppressLint("WrongViewCast")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.register_step_3);

        final List<String> list = Arrays.asList(getResources().getStringArray(R.array.category_array));

        final List<KeyPairBoolData> listArray0 = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            KeyPairBoolData h = new KeyPairBoolData();
            h.setId(i + 1);
            h.setName(list.get(i));
            h.setSelected(false);
            listArray0.add(h);
        }

        final List<KeyPairBoolData> listArray1 = new ArrayList<>();
        for (int i = 0; i < list.size(); i++) {
            KeyPairBoolData h = new KeyPairBoolData();
            h.setId(i + 1);
            h.setName(list.get(i));
            h.setSelected(i < 5);
            listArray1.add(h);
        }

        MultiSpinnerSearch multiSelectSpinnerWithSearch = findViewById(R.id.multipleItemSelectionSpinner);

        multiSelectSpinnerWithSearch.setSearchEnabled(true);
        multiSelectSpinnerWithSearch.setHintText("Select Movie Categories");
        multiSelectSpinnerWithSearch.setClearText("Clear");
        multiSelectSpinnerWithSearch.setSearchHint("Search Movie Categories");
        multiSelectSpinnerWithSearch.setEmptyTitle("Not Data Found!");
        multiSelectSpinnerWithSearch.setShowSelectAllButton(true);

        multiSelectSpinnerWithSearch.setItems(listArray1, items -> {
            //The followings are selected items.
            for (int i = 0; i < items.size(); i++) {
                Log.i("i", i + " : " + items.get(i).getName() + " : " + items.get(i).isSelected());
            }
        });

        spinnerObject = (Spinner) findViewById(R.id.ageSpinner);
        spinnerObject.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            @Override
            public void onNothingSelected(AdapterView<?> parent) {

            }
            @Override
            public void onItemSelected(AdapterView<?> parentView, View selectedItemView, int position, long id) {
                ((TextView)parentView.getChildAt(0)).setTextColor(Color.WHITE);
            }
        });

        multiSelectSpinnerWithSearch.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {
            @Override
            public void onNothingSelected(AdapterView<?> parent) {

            }
            @Override
            public void onItemSelected(AdapterView<?> parentView, View selectedItemView, int position, long id) {
                ((TextView)parentView.getChildAt(0)).setTextColor(Color.WHITE);
            }
        });
    }

    public String deDup(String s, String ch) {
        return new LinkedHashSet<String>(Arrays.asList(s.split(ch))).toString().replaceAll("(^\\[|]$)",
"").replace(", ", ch);
    }
}
```
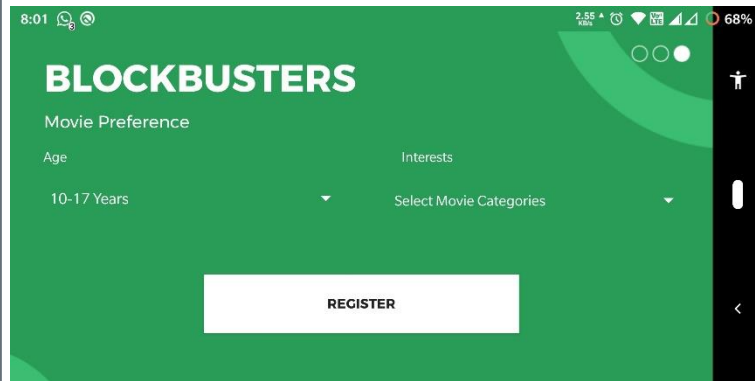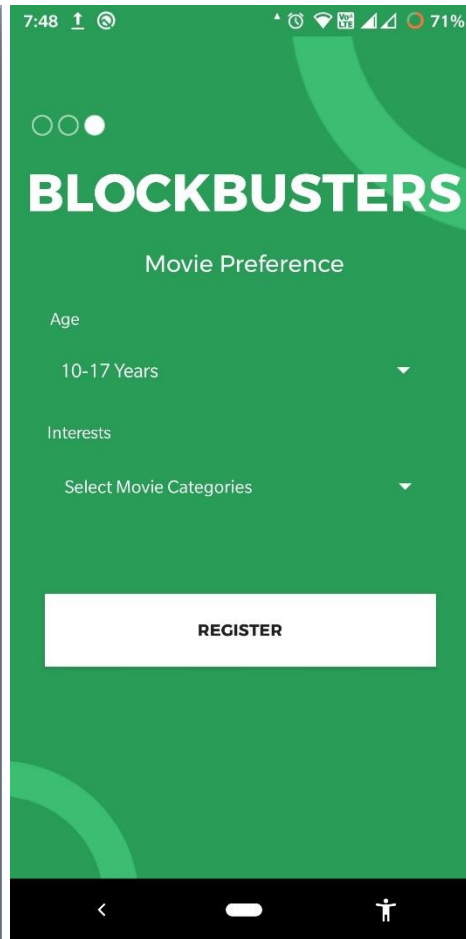
```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/colorPrimary"
    tools:context=".RegisterStep3">

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="414dp"
        android:layout_height="359dp"
        android:layout_marginStart="188dp"
        android:baselineAlignBottom="true"
        app:layout_constraintBottom_toBottomOf="@+id/mainText"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/rec" />

    <ImageView
        android:id="@+id/imageView8"
        android:layout_width="299dp"
        android:layout_height="216dp"
        android:layout_marginTop="72dp"
        android:layout_marginEnd="220dp"
        android:baselineAlignBottom="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/btnNextEnd"
        app:srcCompat="@drawable/rec" />

    <TextView
        android:id="@+id/mainText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="88dp"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/comapnyName"
        android:textAllCaps="true"
        android:textColor="@color/colorWhite"
        android:textSize="45sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:fontFamily="@font/montserrat"
        android:text="@string/movie_pref"
        android:textColor="@color/colorWhite"
        android:textSize="20sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/mainText" />

    <TextView
        android:id="@+id/nicText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="@string/age"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.092"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <TextView
        android:id="@+id/interestsText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:text="@string/interests"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.092"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/ageSpinner" />

    <Button
        android:id="@+id/btnNextEnd"
        android:layout_width="301dp"
        android:layout_height="56dp"
        android:layout_marginTop="60dp"
        android:autoText="true"
        android:background="@color/colorWhite"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/register"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.454"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/multipleItemSelectionSpinner" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="90dp"
        android:layout_height="41dp"
        app:layout_constraintBottom_toTopOf="@+id/mainText"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="1.0"
        app:srcCompat="@drawable/loading33" />

    <com.androidbuts.multispinnerfilter.MultiSpinnerSearch
        android:id="@+id/multipleItemSelectionSpinner"
        android:layout_width="296dp"
        android:layout_height="46dp"
        android:layout_margin="10dp"
        android:backgroundTint="@color/colorWhite"
        app:hintText="Multi Item Selection"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/interestsText"
        tools:ignore="MissingConstraints" />

    <Spinner
        android:id="@+id/ageSpinner"
        android:layout_width="296dp"
        android:layout_height="46dp"
        android:layout_marginTop="8dp"
        android:backgroundTint="@color/colorWhite"
        android:entries="@array/age"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.478"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nicText2"
        tools:ignore="MissingConstraints" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Register Stage III - Layout

Portrait Mode

```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"
    android:background="@color/colorPrimary"
    tools:context=".RegisterStep2">

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="354dp"
        android:layout_height="301dp"
        android:layout_marginStart="488dp"
        android:baselineAlignBottom="true"
        app:layout_constraintBottom_toTopOf="@+id/editDOB"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/rec"
        tools:ignore="MissingConstraints" />

    <ImageView
        android:id="@+id/imageView8"
        android:layout_width="217dp"
        android:layout_height="159dp"
        android:layout_marginTop="68dp"
        android:layout_marginEnd="604dp"
        android:baselineAlignBottom="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/interestSpinner"
        app:srcCompat="@drawable/rec" />

    <TextView
        android:id="@+id/mainText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/comapnyName"
        android:textAllCaps="true"
        android:textColor="@color/colorWhite"
        android:textSize="40sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.092"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/montserrat"
        android:text="@string/personaldetails"
        android:textColor="@color/colorWhite"
        android:textSize="18sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.061"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/mainText" />

    <EditText
        android:id="@+id/editName"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:layout_marginStart="36dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="textMultiLine"
        android:maxLines="2"
        android:textColor="@color/colorWhite"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/addressText" />

    <TextView
        android:id="@+id/addressText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        android:text="@string/address"
        android:textColor="@color/colorWhite"
        android:textSize="14sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.055"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <EditText
        android:id="@+id/editDOB"
        android:layout_width="296dp"
        android:layout_height="48dp"
        android:backgroundTint="@color/colorWhite"
        android:ems="10"
        android:inputType="text"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.728"
        app:layout_constraintStart_toEndOf="@+id/editName"
        app:layout_constraintTop_toBottomOf="@+id/nicText" />

    <TextView
        android:id="@+id/nicText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:layout_marginEnd="300dp"
        android:text="@string/nic"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <TextView
        android:id="@+id/nicText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="12dp"
        android:text="@string/sex"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.052"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editDOB" />

    <Button
        android:id="@+id/btnNextFinal"
        android:layout_width="301dp"
        android:layout_height="56dp"
        android:autoText="true"
        android:background="@color/colorWhite"
        android:fontFamily="@font/montserrat_bold"
        android:text="@string/next"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/genderSpinner"
        app:layout_constraintVertical_bias="0.139" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="90dp"
        android:layout_height="41dp"
        app:layout_constraintBottom_toTopOf="@+id/mainText"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.992"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.0"
        app:srcCompat="@drawable/loading32" />

    <Spinner
        android:id="@+id/genderSpinner"
        android:layout_width="296dp"
        android:layout_height="46dp"
        android:backgroundTint="@color/colorWhite"
        android:entries="@array/gender"
        android:textColor="@color/colorWhite"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.002"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nicText2" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Register Stage III - Layout

Landscape Mode