



Project Report
Pervasive Computing
Course Code: CSE-335

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Title: A user interactive shopping application.

Introduction:

Shopping apps are designed to make it easy for customers to find and buy the products they need. They also allow you to purchase items faster by allowing customers to save payment info and make in-app payments by logging into an account. The recent pandemic has resulted in a massive surge in mobile shoppers worldwide; consumers find it more convenient to shop online on mobile apps, from groceries to medicines to clothes and electronic accessories. We will be available 24/7 for your customers and can be in touch with your global audience with the mobile application enabling them to be in direct contact with your brand. According to a report by Merchant Savvy, 58% of all multi-channel purchases are now completed via mobile. The convenience of shopping on your mobile app can enable customers to turn into repeat buyers, and you can also add loyalty programs to retain the existing customers.

Objective:

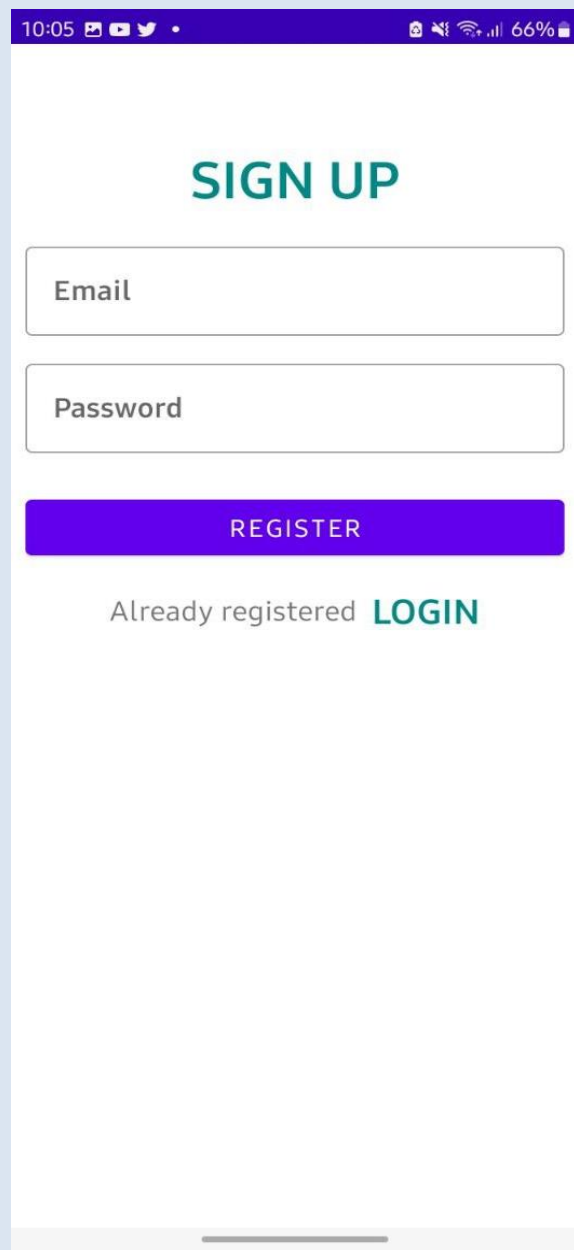
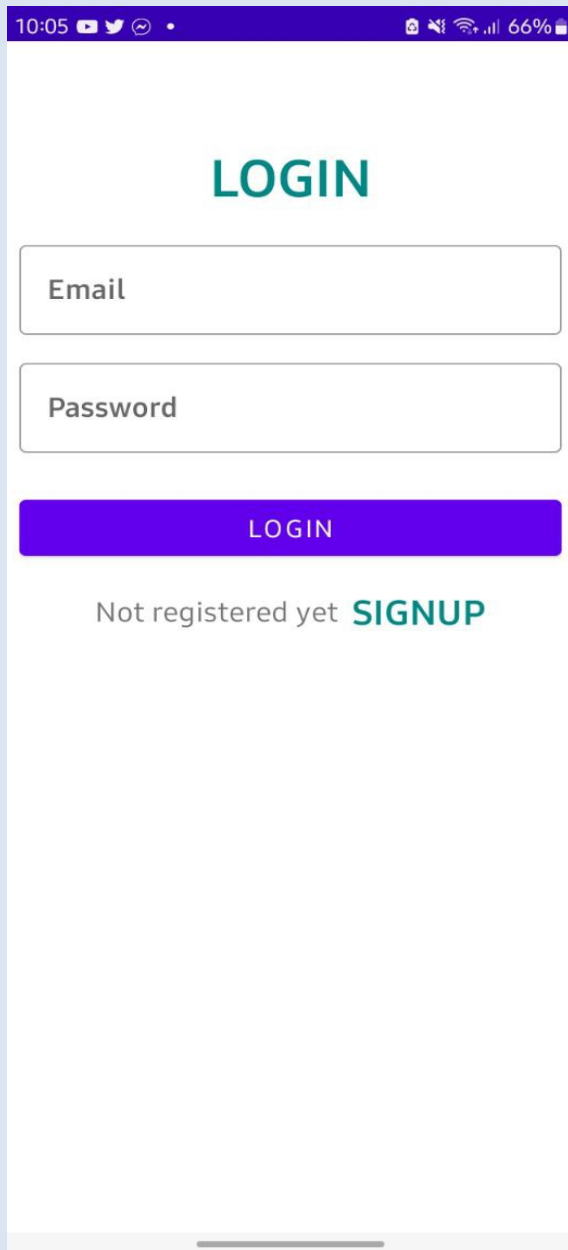
The objectives for a mobile app:

- User Growth,
- Engagement, and
- Brand Awareness.

The main objective of the Online Shopping System is to manage the details of Shopping, Internet, Payment, Bills, Customer. It manages all the information about Shopping, Products, Customer, Shopping.

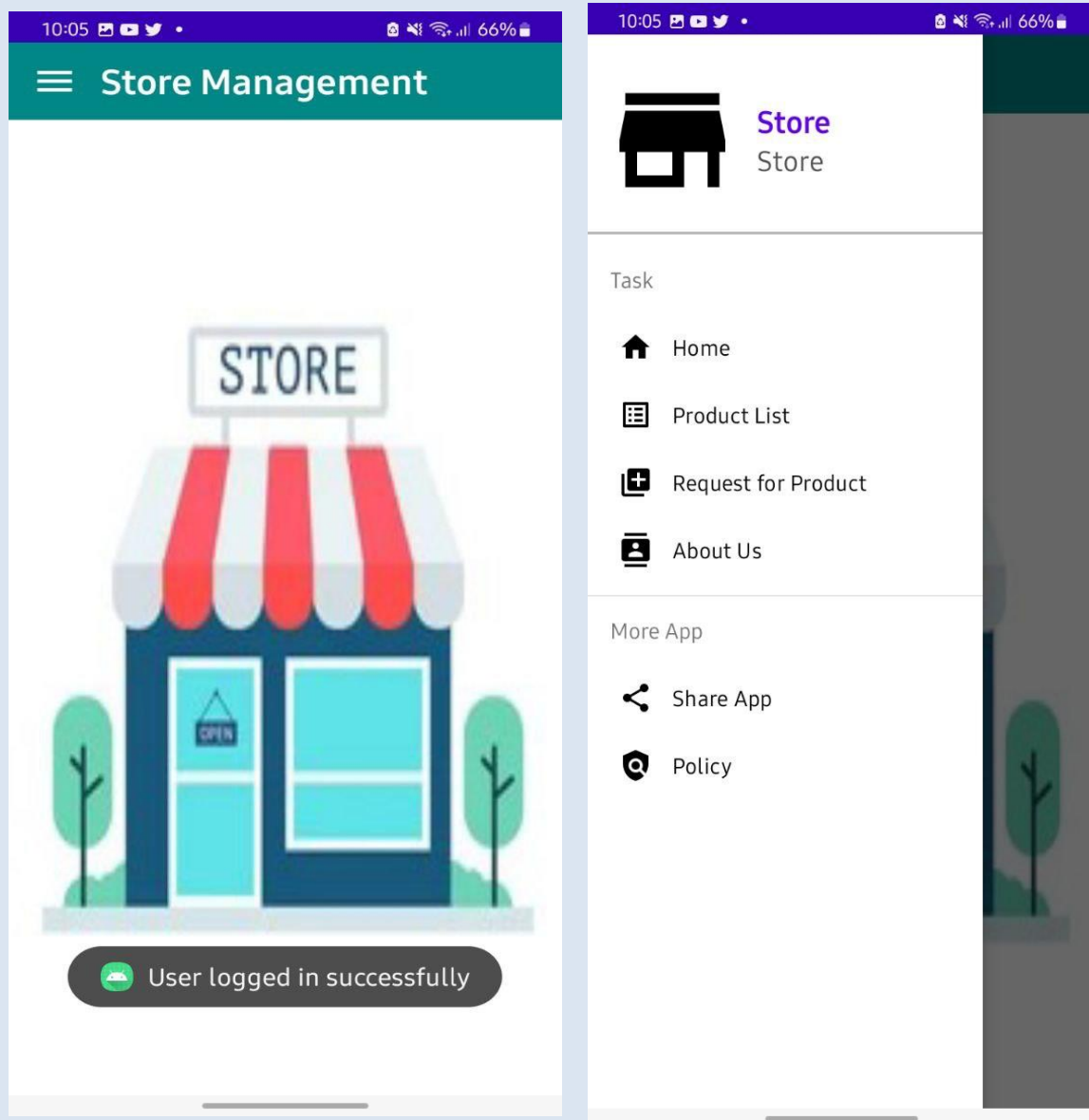
Description:

Login/Signup



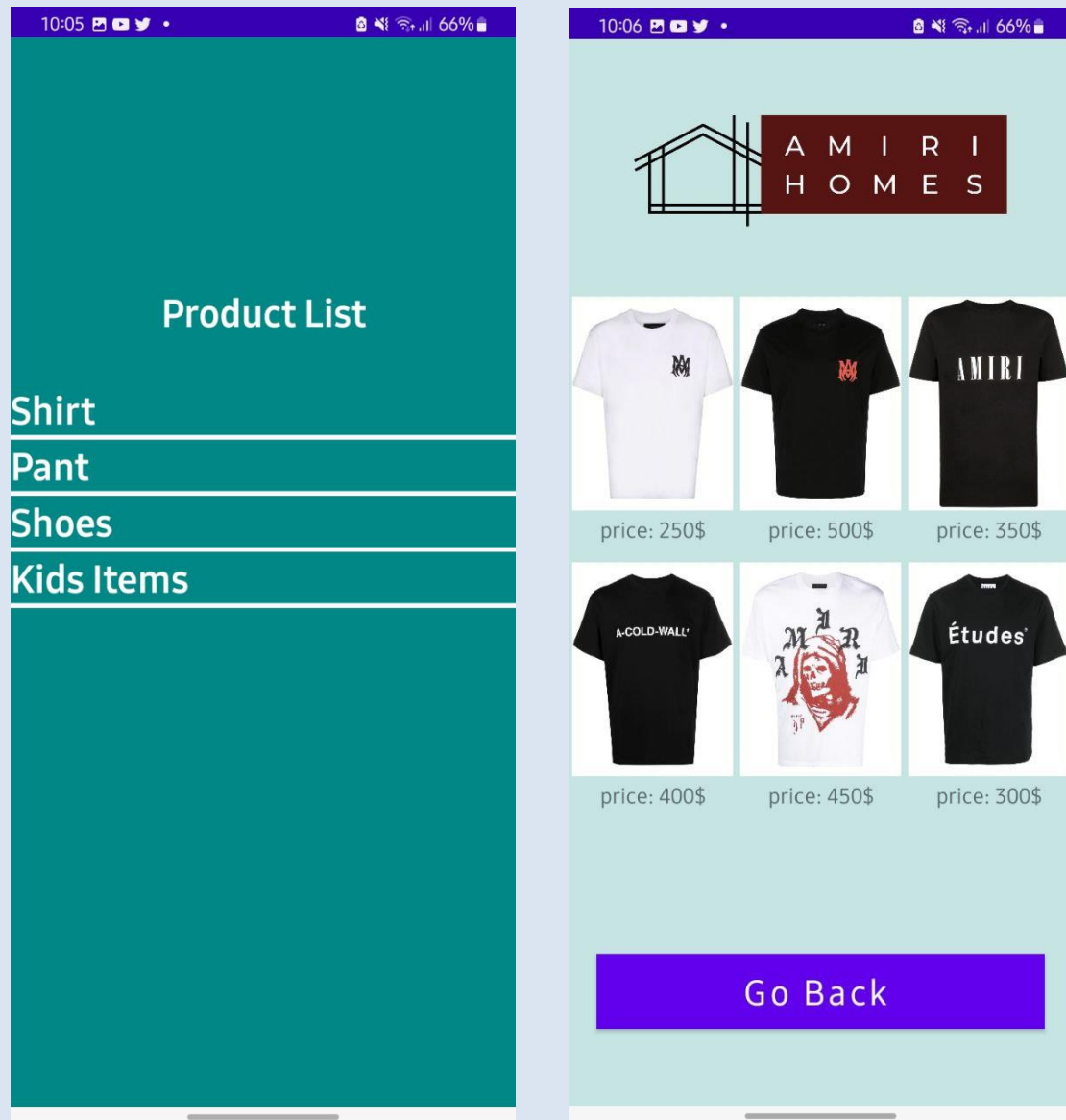
Here I have used **firebase authentication** for login and signup. If a customer has already an account, then he or she can directly log in to the app. Unless they have to sign up with their email and proper password.

Home:



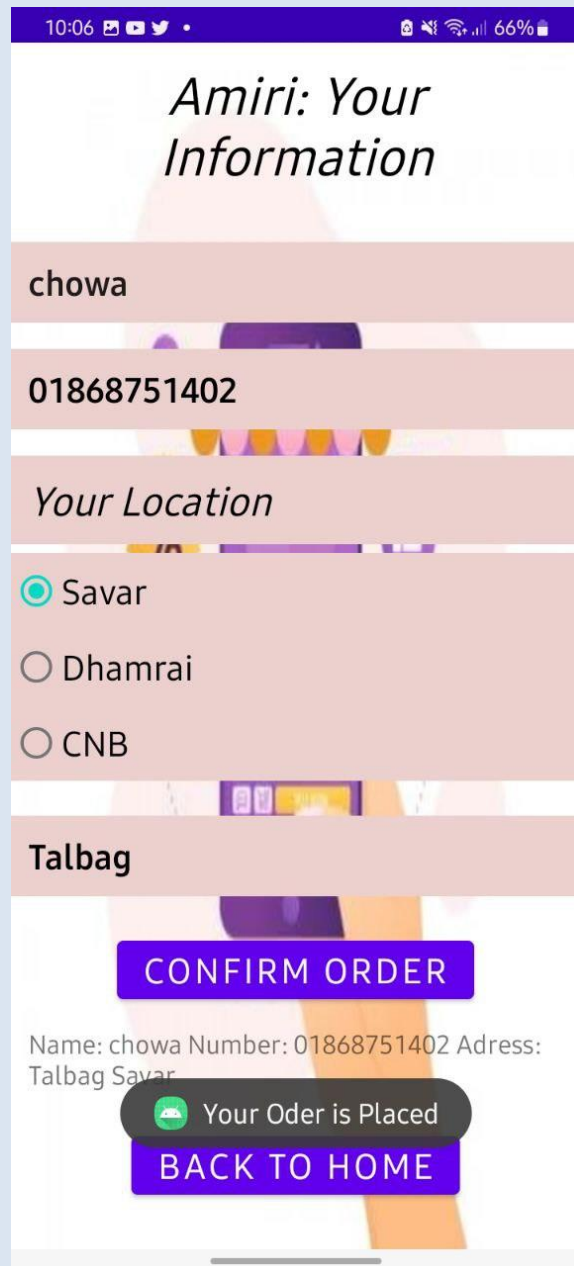
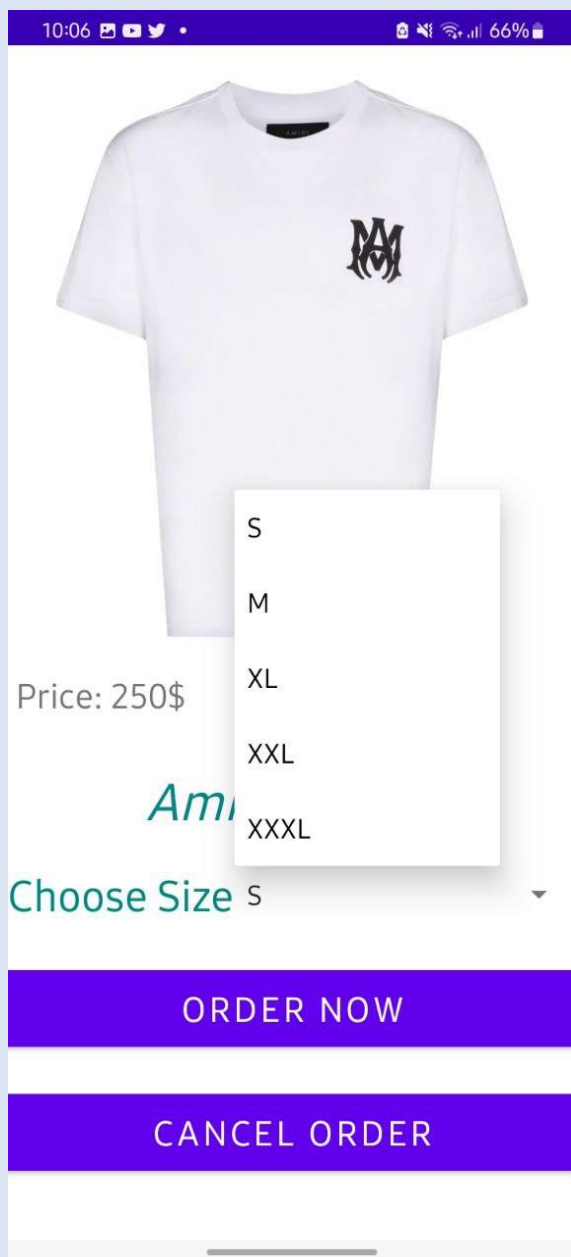
After login it will show a toast for login success and come to the login page. Here I have used navigation bar and fragment. In the navigation bar I have several segments.

Product list:



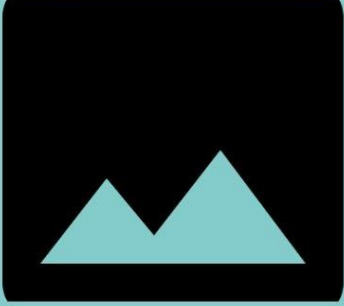
Here, the product list has been displayed using **list view**. If we click to any segment, it will take us to the product display page with price.

Then if we select any product, it will ask the products size and then if we place the order. The system will take our address and information to confirm the order. Thus, we can order a product. Here I have used **fragment** for the shirt display section. And also I have used **spinner** and **radiobutton**.



Request for product:

10:06 66%



Product Name...


Product Description...

Preferable Size

Confirm Product

Back to home

10:08 65%



smiley

A paper smiley

3-6\$

Confirm Product

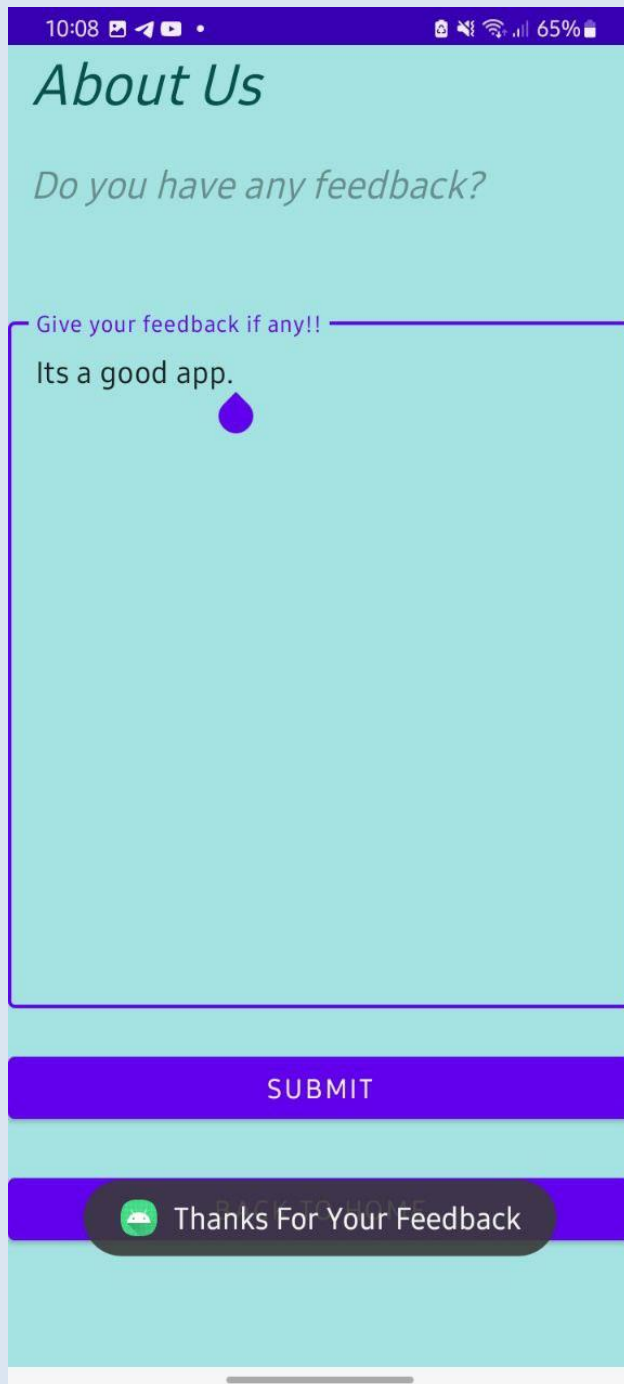
Back to home

You Have Submitted Your Request.

Here we can request to the server for any product that is not available. We can add picture from our gallery and with the proper information we can request for a product.

Feedback:

Lastly the customer can give feedback for the system.



The image shows a mobile application interface for providing feedback. At the top, the status bar displays the time 10:08, signal strength, and 65% battery. The app's header is teal with the text "About Us" in a large, dark teal font. Below the header, the question "Do you have any feedback?" is displayed in a smaller, dark teal font. A large, rounded rectangular text input area with a teal border is provided for feedback. Inside this area, the text "Give your feedback if any!!" is at the top left, and "Its a good app." is entered below it. A small teal circular cursor is positioned at the end of the entered text. Below the input area is a teal button with the word "SUBMIT" in white capital letters. At the bottom of the screen, a dark teal banner contains a green speech bubble icon with a white checkmark and the text "Thanks For Your Feedback" in white.

Source code:

[Source code link](#)

Lab Report

Fragment

Main xml:

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout 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:orientation="vertical"
    android:paddingTop="20sp"
    tools:context=".MainActivity">

    <Button
        android:layout_width="match_parent"
        android:layout_gravity="center_horizontal"
        android:layout_height="wrap_content"
        android:text="1st fragment"
        android:background="@color/teal_200"
        android:id="@+id/fragmentbtn1"
        android:textSize="25dp"
        android:textStyle="bold"
        android:onClick="gofragone"/>

    <Button
        android:layout_width="match_parent"
        android:layout_gravity="center_horizontal"
```

```

        android:layout_height="wrap_content"

        android:text="2nd fragment"

        android:id="@+id/fragmentbtn2"

        android:textSize="25dp"

        android:textStyle="bold"

        android:background="#61A6DD"

        android:onClick="gofragrwo"/>

<LinearLayout

        android:layout_width="match_parent"

        android:layout_height="400sp"

        android:id="@+id/fragmentcontainer"

        android:background="@color/purple_200"

        android:orientation="horizontal"

        >

</LinearLayout>

</LinearLayout>

```

Fragment xml1:

```

<?xml version="1.0" encoding="utf-8"?>

<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"

        xmlns:tools="http://schemas.android.com/tools"

        android:layout_width="match_parent"

        android:layout_height="400dp"

        tools:context=".BlankFragment">

```

```
<!-- TODO: Update blank fragment layout -->
```

```
<TextView
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent"
```

```
android:text="I am first fragment"
```

```
android:textSize="25dp"
```

```
android:textStyle="bold"
```

```
android:gravity="center"
```

```
android:background="@color/teal_200"/>
```

```
</FrameLayout>
```

Fragment xml 2:

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
xmlns:tools="http://schemas.android.com/tools"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="400dp"
```

```
tools:context=".BlankFragment2">
```

```
<!-- TODO: Update blank fragment layout -->
```

```
<TextView
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent"
```

```
android:text="I am second fragment"
```

```
android:textSize="25dp"
```

```
android:textStyle="bold"
android:gravity="center"
android:background="#61A6DD" />
</FrameLayout>
```

Java:

```
package com.example.practice;

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentTransaction;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {

    public Button btn1, btn2;

    FragmentManager myfragmng;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        btn1=findViewById(R.id.fragmentbtn1);

        btn2=findViewById(R.id.fragmentbtn2);

    }

    public void gofragone(View view) {
```

```

myfragmng=getSupportFragmentManager();

FragmentManager myfragmenttransaction=myfragmng.beginTransaction();

myfragmenttransaction.add(R.id.fragmentcontainer, new

BlankFragment()).commit();

}

public void gofragrwo(View view) {

myfragmng=getSupportFragmentManager();

FragmentManager myfragmenttransaction=myfragmng.beginTransaction();

myfragmenttransaction.add(R.id.fragmentcontainer, new

BlankFragment2()).commit();

}

}

```

List View:

Xml1:

```

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout 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/ListViewId"

android:listSelector="#A217BA"

```

```
android:layout_width="match_parent"
android:layout_height="match_parent"
android:divider="#A217BA"
android:dividerHeight="3sp"
/>
</LinearLayout>
```

Java1:

```
package com.example.practice_listview;

import androidx.appcompat.app.AppCompatActivity;
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.ListView;

public class MainActivity extends AppCompatActivity {

    ListView myListView;

    String[] countryName;

    String selectedValue;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);
```

```

myListView = findViewById(R.id.ListViewId);

countryName = getResources().getStringArray(R.array.Country_name);

ArrayAdapter<String> myAdapter = new
ArrayAdapter<String>(this,R.layout.sampleview,R.id.textViewId,countryName);
myListView.setAdapter(myAdapter);

myListView.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
@Override

public void onItemClick(AdapterView<?> adapterView, View view, int
position, long id) {
selectedValue = countryName[position];
if(selectedValue.equals("Bangladesh")){

Intent myIntent = new Intent(MainActivity.this,MainActivity2.class);
startActivity(myIntent);

}

}

});

}

}

```

Sampleview:

```

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

```



```
android:orientation="vertical"
android:layout_width="match_parent"
android:layout_height="match_parent">
<TextView
android:id="@+id/textViewId"
android:listSelector="#A217BA"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text = "Hello"
android:textSize = "40sp"/>
</LinearLayout>
```

String:

```
<resources>
<string name="app_name">Practice_listview</string>
<string-array name="Country_name">
<item>Bangladesh</item>
<item>Japan</item>
<item>Argentina</item>
<item>Brazil</item>
<item>Germany</item>
</string-array>
</resources>
```

Xml2:

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout 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:orientation="vertical"
    android:gravity="center"
    tools:context=".MainActivity2">

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:hint="Insert Name"
        android:id="@+id/editviewid"
        android:textSize="40sp"/>

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="save"
        android:textSize="30sp"/>

</LinearLayout>
```

Java2:

```

package com.example.practice_listview;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.EditText;

public class MainActivity2 extends AppCompatActivity {

    EditText nameEdittext;

    String name;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main2);

    }

}

```

Evaluation 2:

Xml1:

```

<?xml version="1.0" encoding="utf-8"?>

<LinearLayout 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:orientation="vertical"

android:weightSum="2"

tools:context=".MainActivity">

```

```
<LinearLayout  
    android:layout_width="match_parent"  
    android:layout_height="0sp"  
    android:layout_weight="1"  
    android:weightSum="2">
```

```
<Button  
    android:id="@+id/btna"  
    android:layout_width="0sp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:onClick="Nextfunc"  
    android:gravity="center"  
    android:text="A "  
    android:textSize="30sp"/>
```

```
<Button  
    android:id="@+id/btnb"  
    android:layout_width="0sp"  
    android:layout_height="match_parent"  
    android:layout_weight="1"  
    android:onClick="Nextfunc"  
    android:gravity="center"  
    android:text="B "  
    android:textSize="30sp"/>
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="0sp"
    android:layout_weight="1"
    android:weightSum="2">
```

```
<Button
    android:id="@+id/btnc"
    android:layout_width="0sp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:onClick="Nextfunc"
    android:gravity="center"
    android:text="C"
    android:textSize="30sp"/>
```

```
<Button
    android:id="@+id/btnd"
    android:layout_width="0sp"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:onClick="Nextfunc"
    android:gravity="center"
    android:text="D"
    android:textSize="30sp"/>
```

```
</LinearLayout>
```

</LinearLayout>

Java1:

```
package com.example.evaluation2;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;

public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

    }

    public void Nextfunc(View view) {

        Intent myIntent= new Intent(this, MainActivity2.class);

        startActivity(myIntent);

    }

}
```

Xml2:

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout 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:orientation="vertical"
    android:gravity="center"
    tools:context=".MainActivity2">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <TextView
            android:layout_width="0sp"
            android:layout_height="match_parent"
            android:layout_weight="0.5"
            android:gravity="center"
            android:text="Name"
            android:textSize="30sp"/>
        <EditText
            android:id="@+id/nameid"
            android:layout_width="0sp"
            android:layout_height="match_parent"
            android:layout_weight="1.5"
            android:gravity="center"
            android:textSize="30sp"
            tools:ignore="SpeakableTextPresentCheck" />
    </LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <TextView
        android:layout_width="0sp"
        android:layout_height="match_parent"
        android:layout_weight="0.5"
        android:gravity="center"
        android:text="ID"
        android:textSize="30sp"/>
    <EditText
        android:id="@+id/idid"
        android:layout_width="0sp"
        android:layout_height="match_parent"
        android:layout_weight="1.5"
        android:gravity="center"
        android:textSize="30sp"
        tools:ignore="SpeakableTextPresentCheck,SpeakableTextPresentCheck" />
</LinearLayout>
<TextView
    android:layout_marginTop="40sp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
```



```
android:text="Select Gender"
android:textSize="30sp"/>
<RadioGroup
    android:layout_marginTop="40sp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/q1radiogrpId">
    <RadioButton
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/maleradio"
        android:text="Male"
        android:textSize="25sp"
    ></RadioButton>
    <RadioButton
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/femaleradio"
        android:text="Female"
        android:textSize="25sp"
    ></RadioButton>
</RadioGroup>
<Button
    android:layout_marginTop="40sp"
```

```
android:id="@+id/btnactivity2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:onClick="Nextfunc2"
android:gravity="center"
android:text="Show Details"
android:textSize="30sp"/>
</LinearLayout>
```

Java2:

```
package com.example.evaluation2;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;
public class MainActivity2 extends AppCompatActivity {
    RadioGroup myq1RadioGroup;
    RadioButton male, female;
    TextView text;
```

```
String name1, id1, gender, male1, female1;

EditText id, name;

@Override

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main2);

    id=findViewById(R.id.idid);

    name=findViewById(R.id.nameid);

    myq1RadioGroup=findViewById(R.id.q1radiogrpId);

}

public void Nextfunc2(View view) {

    name1=name.getText().toString();

    id1=id.getText().toString();

    if(myq1RadioGroup.getCheckedRadioButtonId()==R.id.maleradio){

        Toast.makeText(this, "Name "+name1+" Id "+id1+" Gender Male",

        Toast.LENGTH_SHORT).show();

    }

    else{

        Toast.makeText(this, "Name "+name1+" Id "+id1+" Gender Female",

        Toast.LENGTH_SHORT).show();

    }

}

}
```

Spinner:

Xml:

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout 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:orientation="vertical"
    android:gravity="center"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome and Best Wishes"
        android:textSize="30sp"/>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:weightSum="2">

        <TextView
            android:layout_marginTop="40sp"
            android:layout_width="0sp"
```

```
android:layout_height="match_parent"
```

```
android:layout_weight="0.7"
```

```
android:text="Section"
```

```
android:textSize="25sp"
```

```
/>
```

```
<Spinner
```

```
android:layout_width="0sp"
```

```
android:layout_height="match_parent"
```

```
android:layout_weight="1.3"
```

```
android:id="@+id/spinnerid"
```

```
android:textSize="30sp"/>
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
android:layout_width="match_parent"
```

```
android:layout_height="wrap_content"
```

```
android:orientation="horizontal"
```

```
android:weightSum="2">
```

```
<TextView
```

```
android:layout_marginTop="20sp"
```

```
android:layout_width="0sp"
```

```
android:layout_height="match_parent"
```

```
android:layout_weight="0.7"
```

```
android:text="Enter Your ID:"
```

```
android:textSize="23sp"
```

```
/>

<EditText

    android:id="@+id/idEditTextID"

    android:layout_width="0sp"

    android:layout_height="match_parent"

    android:layout_weight="1.3"

    android:gravity="center"

    android:textSize="30sp"

    tools:ignore="SpeakableTextPresentCheck" />

</LinearLayout>

<Button

    android:layout_marginTop="30sp"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Let's Start"

    android:onClick="btnFunction"

    android:textSize="20sp"

/>

</LinearLayout>
```

Java:

```
package com.example.myquizapp;

import androidx.appcompat.app.AppCompatActivity;

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.EditText;

import android.widget.Spinner;

import android.widget.Toast;

import java.text.BreakIterator;

public class MainActivity extends AppCompatActivity implements
    AdapterView.OnItemClickListener{

    EditText idEditText;

    Spinner mySpinner;

    String id, sectionn;

    String[]section={"PC-A","PC-B","PC_C","PC-D"};

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        idEditText= findViewById(R.id.idEditTextID);

        mySpinner=findViewById(R.id.spinnerid);

        ArrayAdapter myAA = new ArrayAdapter(this,
            android.R.layout.simple_spinner_item,section);

        myAA.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item
        );

        mySpinner.setAdapter(myAA);
```

```

mySpinner.setOnItemSelectedListener(this);

}

public void btnFunction(View view) {

String id =idEditText.getText().toString();

//String genderType = mySpinner.get().toString();

//Toast.makeText(this, "ID: "+id + "\n Section: "+sectionn,
Toast.LENGTH_SHORT).show();

Intent myIntent= new Intent(this, MainActivity2.class);

// Intent myIn= new Intent(this, MainActivity4.class);

myIntent.putExtra("ID", id);

myIntent.putExtra("sec", sectionn);

startActivity(myIntent);

}

@Override

public void onItemSelected(AdapterView<?> adapterView, View view, int i, long l) {

sectionn=section[i];

}

@Override

public void onNothingSelected(AdapterView<?> adapterView) {

}

}

```