# COURSE OUTCOME 3

# PROGRAM 9

**AIM :** Implement Adapters and perform exception handling
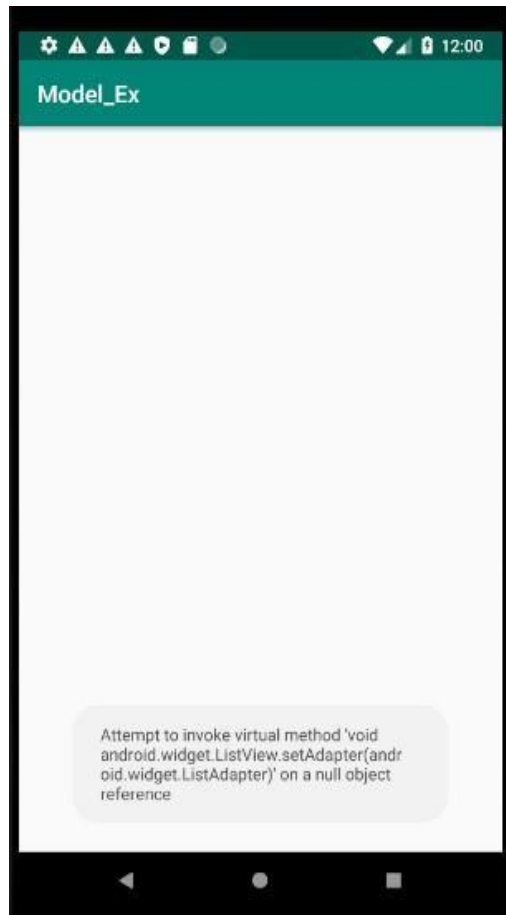
## PROGRAM CODE

| JAVA CODE | |
|---|---|
| | ```
package com.example.sample;
import
androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import
android.widget.ListView;
import
android.widget.AdapterView;
import
android.widget.ArrayAdapter;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity
  { ListView list;
  @Override
  protected void onCreate(Bundle savedInstanceState)
    { super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    try {
      //ListView list = findViewById(R.id.listview);
      String[] item = new String[]{"Siddharth malhothra", "Varun
dhawan", "Ranveer singh", "Ranbir kapoor", "Shahid kapoor",
"Jonh abraham", "Salman Khan", "Abhishek Mohan", "Dulquer",
"Saif Ali Khan"};
      ArrayAdapter<String> myAdapter = new
ArrayAdapter<String>(MainActivity.this,
android.R.layout.simple_list_item_1, item);
      list.setAdapter(myAdapter);
    }
    catch(Exception e)
    {
      Toast.makeText(this,e.getMessage(
), Toast.LENGTH_SHORT).show();
    }
  }
}
``` |

| XML CODE | `<?xml version="1.0" encoding="utf-8"?>`<br>`<androidx.constraintlayout.widget.ConstraintLayout`<br>`xmlns:android="http://schemas.android.com/apk/res/android"`<br>`xmlns:app="http://schemas.android.com/apk/res-auto"`<br><br>`    xmlns:tools="http://schemas.android.com/to`<br>`    ols" android:layout_width="match_parent"`<br>`    android:layout_height="match_parent"`<br>`    tools:context=".MainActivity">`<br><br>`    <ListView`<br>`        android:id="@+id/listview"`<br>`        android:layout_width="368d`<br>`        p"`<br>`        android:layout_height="495d`<br>`        p"`<br>`        app:layout_constraintBottom_toBottomOf="parent"`<br>`        app:layout_constraintEnd_toEndOf="parent"`<br>`        app:layout_constraintHorizontal_bias="0.372"`<br>`        app:layout_constraintStart_toStartOf="parent"`<br>`        app:layout_constraintTop_toTopOf="parent"`<br>`        app:layout_constraintVertical_bias="0.361" />`<br>`</androidx.constraintlayout.widget.ConstraintLayout>` |

## OUTPUT



**RESULT:** The above program is successfully executed and obtained the output

# PROGRAM 10

**AIM:** Implement Intent to navigate between multiple activities

## PROGRAM CODE

| JAVA CODE | |
|---|---|
| | ```java
package com.example.intent1;

import

androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.net.Uri;
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 onClick(View view) {
    Intent i = new Intent(Intent.ACTION_VIEW);
    i.setData(Uri.parse("https://www.linkedin.com"))
    ; startActivity(i);

}
``` |
| XML CODE | ```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="#EAE5E5"
  android:backgroundTint="#F8F2F2"
  tools:context=".MainActivity">

  <Button
android:id="@+id/button"

    android:layout_width="308dp"
``` |

| | android:layout_height="50dp"<br>android:backgroundTint="#673AB7"<br>android:onClick="onClick"<br>android:text="LinkedIn"<br>android:textAllCaps="false"<br>android:textSize="24sp"<br>android:textStyle="bold"<br>app:layout_constraintBottom_toBottomOf="parent"<br>app:layout_constraintEnd_toEndOf="parent"<br>app:layout_constraintHorizontal_bias="0.592"<br>app:layout_constraintStart_toStartOf="parent"<br>app:layout_constraintTop_toTopOf="parent"<br>app:layout_constraintVertical_bias="0.461" /><br></androidx.constraintlayout.widget.ConstraintLayout> |
|---|---|

## INTENT 2

| MainActivity.java | package com.example.intent2;<br><br>import androidx.appcompat.app.AppCompatActivity;<br><br>import android.content.Intent;<br>import android.net.Uri;<br>import android.os.Bundle;<br>import android.webkit.WebView;<br>import android.webkit.WebViewClient;<br>import android.widget.Toast;<br><br>import java.net.URL;<br><br>public class MainActivity extends AppCompatActivity {<br><br>  @Override<br>  protected void onCreate(Bundle savedInstanceState) {<br>    super.onCreate(savedInstanceState);<br>    setContentView(R.layout.activity_main);<br>    Intent i = getIntent();<br>    Uri uri = i.getData();<br>    URL pageurl = null;<br>    if(uri !=null){<br>      try{<br>pageurl = new URL(uri.getScheme(),uri.getHost(),uri.getPath());<br>      }<br>      catch ( Exception e) {<br>        Toast.makeText(getApplicationContext(),"Error |

| | |
|---|---|
| | ```
        Occured",Toast.LENGTH_LONG).show();
            }
        }
        WebView web =(WebView) findViewById(R.id.webview);
        web.setWebViewClient(new WebViewClient());
        web.loadUrl(String.valueOf(pageurl));
    }
}
``` |
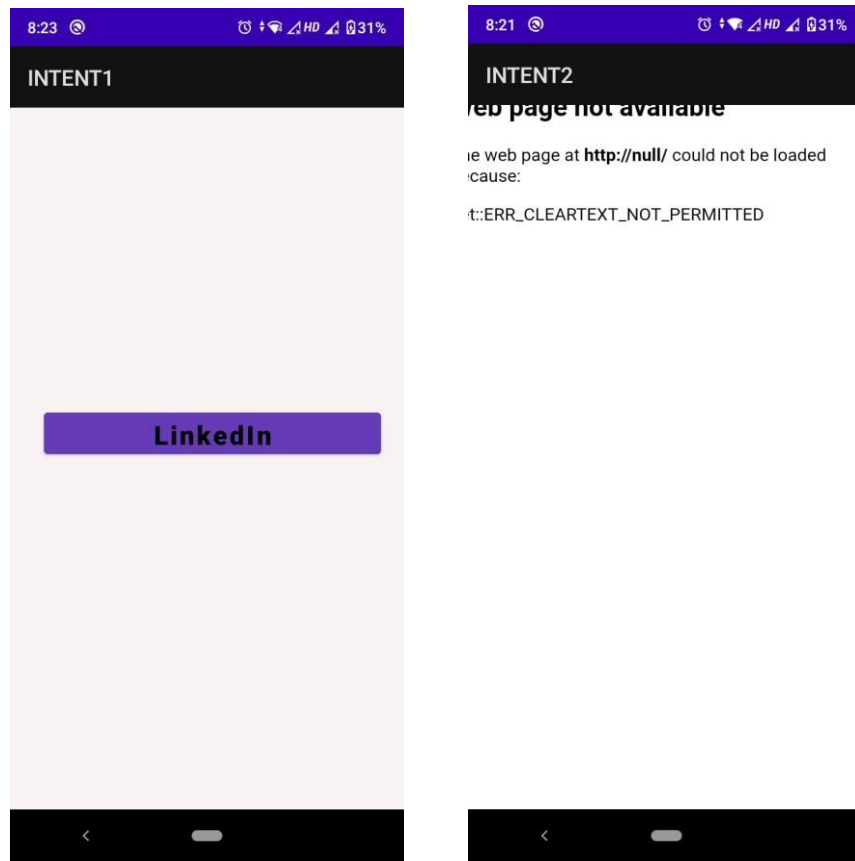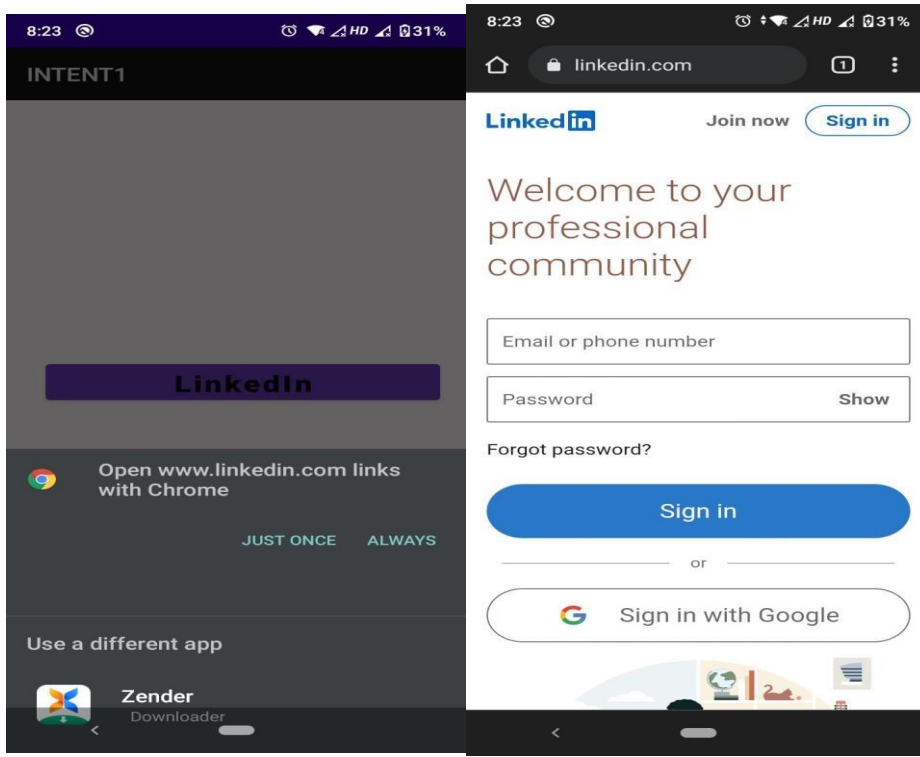| activity_main.xml | ```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <WebView
        android:id="@+id/webview"
        android:layout_width="409dp"
        android:layout_height="729dp"
        android:layout_marginStart="1dp"
        android:layout_marginTop="1dp"
        android:layout_marginEnd="1dp"
        android:layout_marginBottom="1dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
``` |
| AndroidManifest.xml | ```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    package="com.example.intent2">
    <uses-permission
android:name="android.permission.INTERNET"></uses-permission>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.INTENT2">
        <activity
``` |

| | |
|---|---|
| | android:name=".MainActivity"<br>android:exported="true"><br>&lt;intent-filter tools:ignore ="AppLinkUrlError"><br>  &lt;action android:name="android.intent.action.VIEW" /><br><br>  &lt;category<br>android:name="android.intent.category.DEFAULT" /><br>  &lt;/intent-filter><br>&lt;/activity><br>&lt;/application><br><br>&lt;/manifest> |

**RESULT:** The above program is successfully executed and obtained the output

## PROGRAM 11

**AIM:** Develop application that works with explicit intents.

## PROGRAM CODE

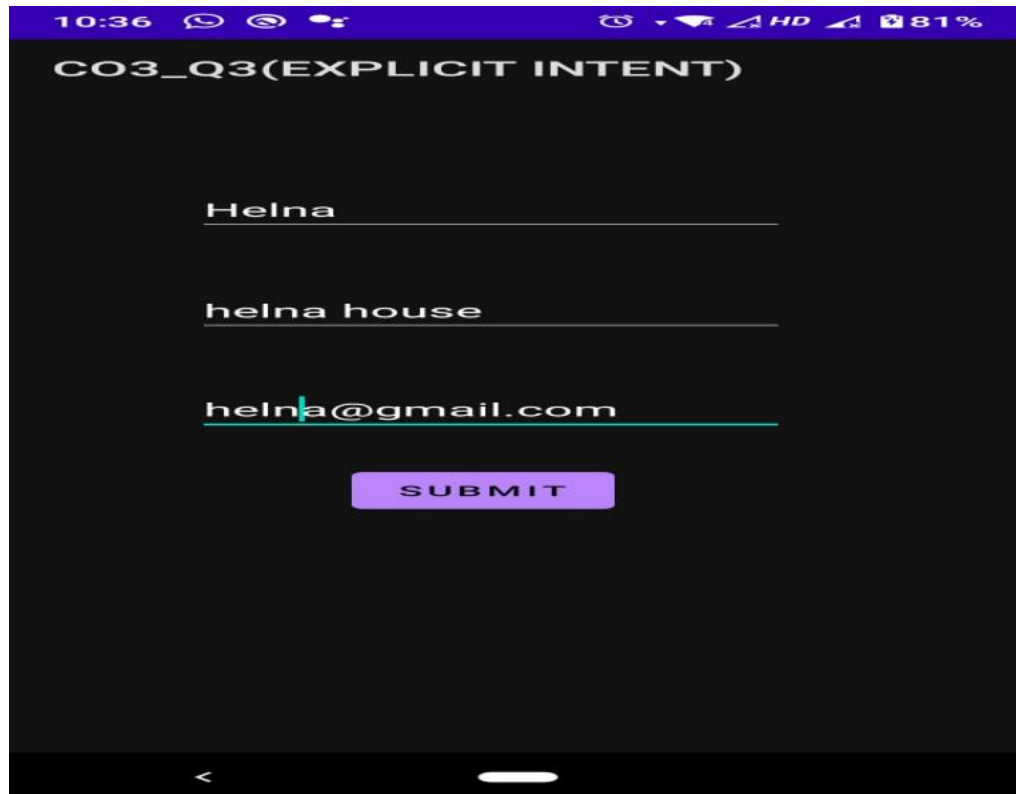| | |
|---|---|
| MainActivity.java | ```java<br>package com.example.co3_q3explicitintent;<br><br>import androidx.appcompat.app.AppCompatActivity;<br><br>import android.content.Intent;<br>import android.os.Bundle;<br>import android.view.View;<br>import android.widget.EditText;<br><br>public class MainActivity extends AppCompatActivity {<br><br>    @Override<br>    protected void onCreate(Bundle savedInstanceState) {<br>        super.onCreate(savedInstanceState);<br>        setContentView(R.layout.activity_main);<br>    }<br>    public void callActivity(View view) {<br>        Intent i = new Intent(getApplicationContext(), MainActivity2.class);<br>        final EditText editText1 = (EditText)findViewById(R.id.name);<br>        String msg = editText1.getText().toString();<br>        final EditText editText2 = (EditText)findViewById(R.id.address);<br>        String add = editText2.getText().toString();<br>        final EditText editText3 = (EditText)findViewById(R.id.email);<br>        String em = editText3.getText().toString();<br>        i.putExtra("Value1", msg);<br>        i.putExtra("Value2", add);<br>        i.putExtra("Value3", em);<br>        startActivity(i);<br>    }<br>}<br>``` |
| XML CODE | ```xml<br><?xml version="1.0" encoding="utf-8"?><br><androidx.constraintlayout.widget.ConstraintLayout<br> xmlns:android="http://schemas.android.com/apk/res/android"<br>xmlns:app="http://schemas.android.com/apk/res-auto"<br>xmlns:tools="http://schemas.android.com/tools"<br><br>    android:layout_width="match_parent"<br>    android:layout_height="match_parent"<br>``` |

```xml
        android:onClick="callActivity"
        tools:context=".MainActivity">

    <EditText
        android:id="@+id/name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.437"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.148" />

    <EditText
        android:id="@+id/address"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Address"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.437"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.313" />

    <EditText
        android:id="@+id/email"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Email"
        android:inputType="textPersonName"
        android:onClick="callActivity"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.437"
app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.475" />
```

| | |
|---|---|
| | ```xml<br><Button<br>    android:id="@+id/button"<br>    android:layout_width="wrap_content"<br>    android:layout_height="wrap_content"<br>    android:text="Submit"<br>    app:layout_constraintBottom_toBottomOf="parent"<br>    app:layout_constraintEnd_toEndOf="parent"<br>    app:layout_constraintHorizontal_bias="0.454"<br>    app:layout_constraintStart_toStartOf="parent"<br>    app:layout_constraintTop_toTopOf="parent"<br>    app:layout_constraintVertical_bias="0.609" /><br></androidx.constraintlayout.widget.ConstraintLayout><br>``` |
| MainActivity2. java | ```java<br>package com.example.co3_q3explicitintent;<br><br>import androidx.appcompat.app.AppCompatActivity;<br><br>import android.os.Bundle;<br>import android.widget.TextView;<br><br>public class MainActivity2 extends AppCompatActivity {<br><br>    TextView view1;<br>    TextView view2;<br>    TextView view3;<br>    @Override<br>    protected void onCreate(Bundle savedInstanceState) {<br>        super.onCreate(savedInstanceState);<br>        setContentView(R.layout.activity_main2);<br>        view1              =              (TextView)<br>        findViewById(R.id.view1);        view2        =<br>        (TextView)  findViewById(R.id.view2);  view3<br>        =    (TextView)    findViewById(R.id.view3);<br>        Bundle extras = getIntent().getExtras();<br>        String value1 = extras.getString("Value1");<br>        String value2 = extras.getString("Value2");<br>        String value3 = extras.getString("Value3");<br>        view1.setText(value1);<br>        view2.setText(value2);<br>        view3.setText(value3);<br>    }<br><br>}<br>``` |
| activity_main2. xml | ```xml<br><?xml version="1.0" encoding="utf-8"?><br><androidx.constraintlayout.widget.ConstraintLayout<br>xmlns:android="http://schemas.android.com/apk/res/android"<br>``` |

```xml
    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=".MainActivity2">

    <TextView
        android:id="@+id/view3"
        android:layout_width="189dp"
        android:layout_height="36dp"
        android:textAlignment="center
        "
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.459"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.398" />

    <TextView
        android:id="@+id/view1"
        android:layout_width="189dp"
        android:layout_height="36dp"
        android:textAlignment="center
        "
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.459"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.22" />

    <TextView
        android:id="@+id/view2"
        android:layout_width="189dp"
        android:layout_height="36dp"
        android:textAlignment="center
        "
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.459"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.306" />

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

**OUTPUT**

**RESULT:** The above program is successfully executed and obtained the output

# PROGRAM 12

**AIM:** Implement Options Menu to navigate to activities

## PROGRAM CODE

| JAVA CODE | |
|---|---|
| | ```java
package com.example.optionmenu;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import
android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;

public class MainActivity extends AppCompatActivity

  { @Override
  protected void onCreate(Bundle savedInstanceState)
    { super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
}
  @Override
  public boolean onCreateOptionsMenu(Menu
    menu){ MenuInflater
    inflater=getMenuInflater();
    inflater.inflate(R.menu.menu_menuoption,menu
    ); return true;
    //return super.onCreateOptionsMenu(menu);
}
  @Override
  public boolean onOptionsItemSelected(@NonNull MenuItem item){
    int id=item.getItemId();
    if(id==R.id.action_settings)
    {
      Intent set=new
      Intent(MainActivity.this,settings.class);
      startActivity(set);
    }
    if(id==R.id.action_home)
    {
      Intent home=new
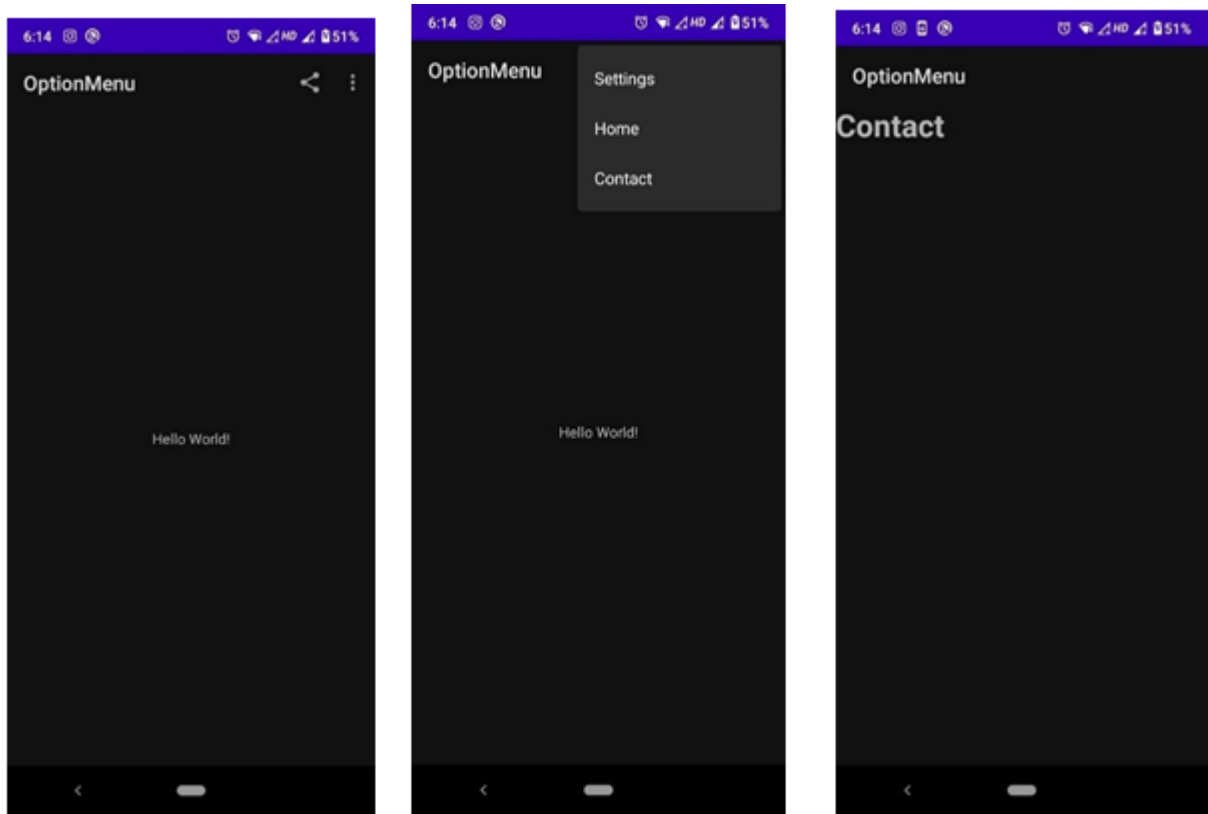``` |

| | |
|---|---|
| | Intent(MainActivity.this,home.class);<br>startActivity(home);<br><br>}<br>if(id==R.id.action_contact) {<br>Intent contact=new Intent(MainActivity.this,contact.class);<br>startActivity(contact);<br>}<br>if(id==R.id.action_share) {<br> Intent share=new Intent(MainActivity.this,share.class);<br>startActivity(share);<br>}<br> return super.onOptionsItemSelected(item);<br> } } |
| XML CODE | ```xml<br><?xml version="1.0" encoding="utf-8"?><br><androidx.constraintlayout.widget.ConstraintLayout<br>xmlns:android="http://schemas.android.com/apk/res/android"<br>  xmlns:app="http://schemas.android.com/apk/res-<br>  auto"<br>  xmlns:tools="http://schemas.android.com/tools"<br>  android:layout_width="match_parent"<br>  android:layout_height="match_parent"<br>  tools:context=".MainActivity"><br><br>  <TextView<br>    android:layout_width="wrap_content"<br>    android:layout_height="wrap_content"<br>    android:text="Hello World!"<br>    app:layout_constraintBottom_toBottomOf="paren<br>    t" app:layout_constraintLeft_toLeftOf="parent"<br>    app:layout_constraintRight_toRightOf="parent"<br>    app:layout_constraintTop_toTopOf="parent" /><br><br></androidx.constraintlayout.widget.ConstraintLayout><br>``` |
| Home.java | ```java<br> package com.example.optionmenu;<br><br> import androidx.appcompat.app.AppCompatActivity;<br><br> import android.os.Bundle;<br><br> public class home extends AppCompatActivity {<br><br>   @Override<br> protected void onCreate(Bundle savedInstanceState) {<br>     super.onCreate(savedInstanceState);<br>     setContentView(R.layout.activity_home);<br>``` |

| | |
|---|---|
| | } |
| | } |
| activity_home.xml | `<?xml version="1.0" encoding="utf-8"?>`<br>`<androidx.constraintlayout.widget.ConstraintLayout`<br>`xmlns:android="http://schemas.android.com/apk/res/android"`<br>`  xmlns:app="http://schemas.android.com/apk/res-auto"`<br>`  xmlns:tools="http://schemas.android.com/tools"`<br>`  android:layout_width="match_parent"`<br>`  android:layout_height="match_parent"`<br>`  tools:context=".home">`<br>`  <TextView`<br>`    android:layout_width="wrap_content"`<br>`    android:layout_height="wrap_content"`<br>`    android:text="Home"`<br>`    android:textSize="30sp"`<br>`    android:textStyle="bold"`<br>`    tools:ignore="MissingConstraints" />`<br>`</androidx.constraintlayout.widget.ConstraintLayout>` |
| Contact.java | `<?xml version="1.0" encoding="utf-8"?>`<br>`<androidx.constraintlayout.widget.ConstraintLayout`<br>`xmlns:android="http://schemas.android.com/apk/res/android"`<br>`  xmlns:app="http://schemas.android.com/apk/res-auto"`<br>`  xmlns:tools="http://schemas.android.com/tools"`<br>`  android:layout_width="match_parent"`<br>`  android:layout_height="match_parent"`<br>`  tools:context=".home">`<br>`  <TextView`<br>`    android:layout_width="wrap_content"`<br>`    android:layout_height="wrap_content"`<br>`    android:text="Home"`<br>`    android:textSize="30sp"`<br>`    android:textStyle="bold"`<br>`    tools:ignore="MissingConstraints" />`<br>`</androidx.constraintlayout.widget.ConstraintLayout>` |
| activity_contact.xml | `<?xml version="1.0" encoding="utf-8"?>`<br>`<androidx.constraintlayout.widget.ConstraintLayout`<br>`xmlns:android="http://schemas.android.com/apk/res/android"`<br>`  xmlns:app="http://schemas.android.com/apk/res-auto"`<br>`  xmlns:tools="http://schemas.android.com/tools"`<br>`  android:layout_width="match_parent"`<br>`  android:layout_height="match_parent"`<br>`  tools:context=".contact">`<br>`<TextView android:layout_width="wrap_content"`<br>`    android:layout_height="wrap_content"`<br>`    android:text="Contact"`<br>`    android:textSize="30sp"` |

| | |
|---|---|
| | android:textStyle="bold"<br>tools:ignore="MissingConstraints" /><br></androidx.constraintlayout.widget.ConstraintLayout> |
| Share.java | ```java<br>package com.example.optionmenu;<br><br>import androidx.appcompat.app.AppCompatActivity;<br><br>import android.os.Bundle;<br><br>public class share extends AppCompatActivity {<br><br>    @Override<br>    protected void onCreate(Bundle savedInstanceState) {<br>        super.onCreate(savedInstanceState);<br>        setContentView(R.layout.activity_share);<br>    }<br>}<br>``` |
| activity_share.xml | ```xml<br><?xml version="1.0" encoding="utf-8"?><br><androidx.constraintlayout.widget.ConstraintLayout<br>xmlns:android="http://schemas.android.com/apk/res/android"<br>    xmlns:app="http://schemas.android.com/apk/res-auto"<br>    xmlns:tools="http://schemas.android.com/tools"<br>    android:layout_width="match_parent"<br>    android:layout_height="match_parent"<br>    tools:context=".share"><br>    <TextView<br>        android:layout_width="wrap_content"<br>        android:layout_height="wrap_content"<br>        android:text="Share"<br>        android:textSize="30sp"<br>        android:textStyle="bold"<br>        tools:ignore="MissingConstraints" /><br></androidx.constraintlayout.widget.ConstraintLayout><br>``` |
| Settings.java | ```java<br>package com.example.optionmenu;<br><br>import androidx.appcompat.app.AppCompatActivity;<br><br>import android.os.Bundle;<br><br>public class settings extends AppCompatActivity {<br><br>    @Override<br>    protected void onCreate(Bundle savedInstanceState) {<br>        super.onCreate(savedInstanceState);<br>        setContentView(R.layout.activity_settings);<br>    }<br>``` |

| | |
|---|---|
| | } |
| activity_settings.xml | ```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=".settings">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Settings"
        android:textSize="30sp"
        android:textStyle="bold"
        tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>
``` |
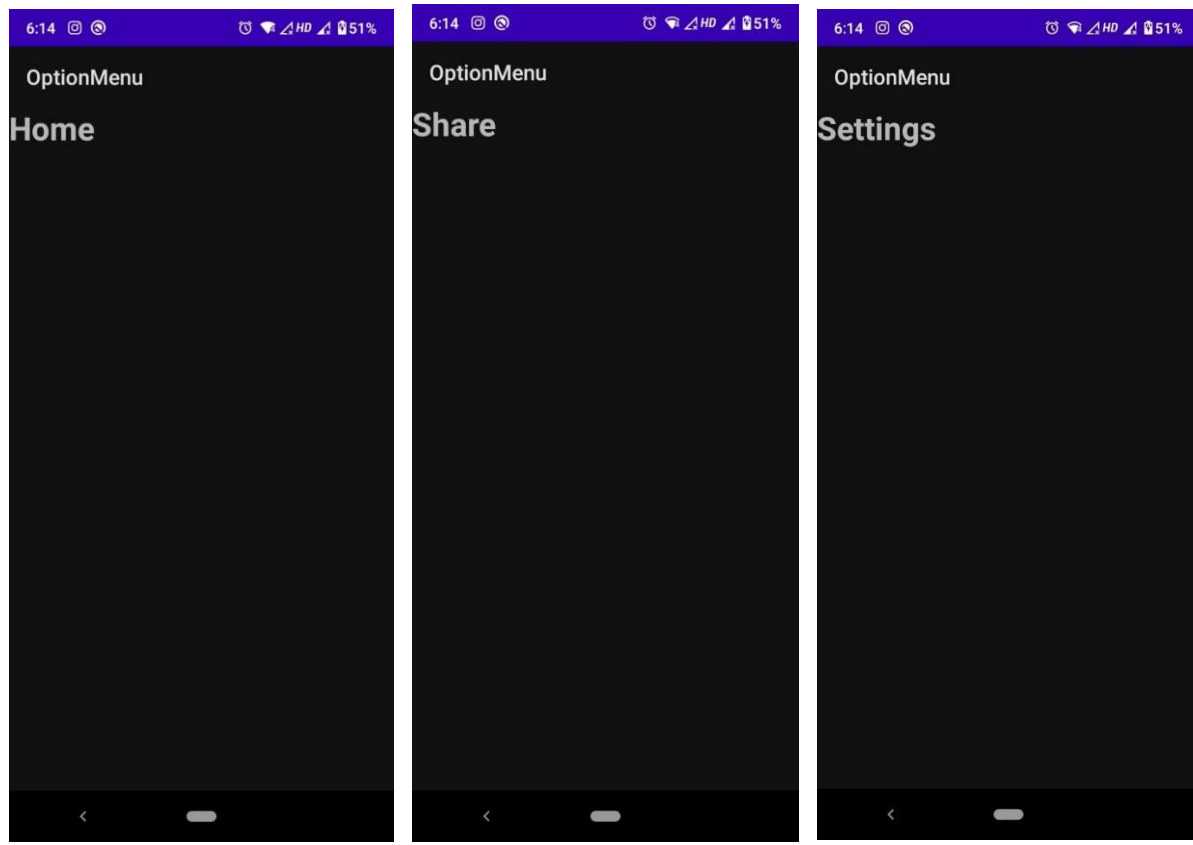
**OUTPUT**

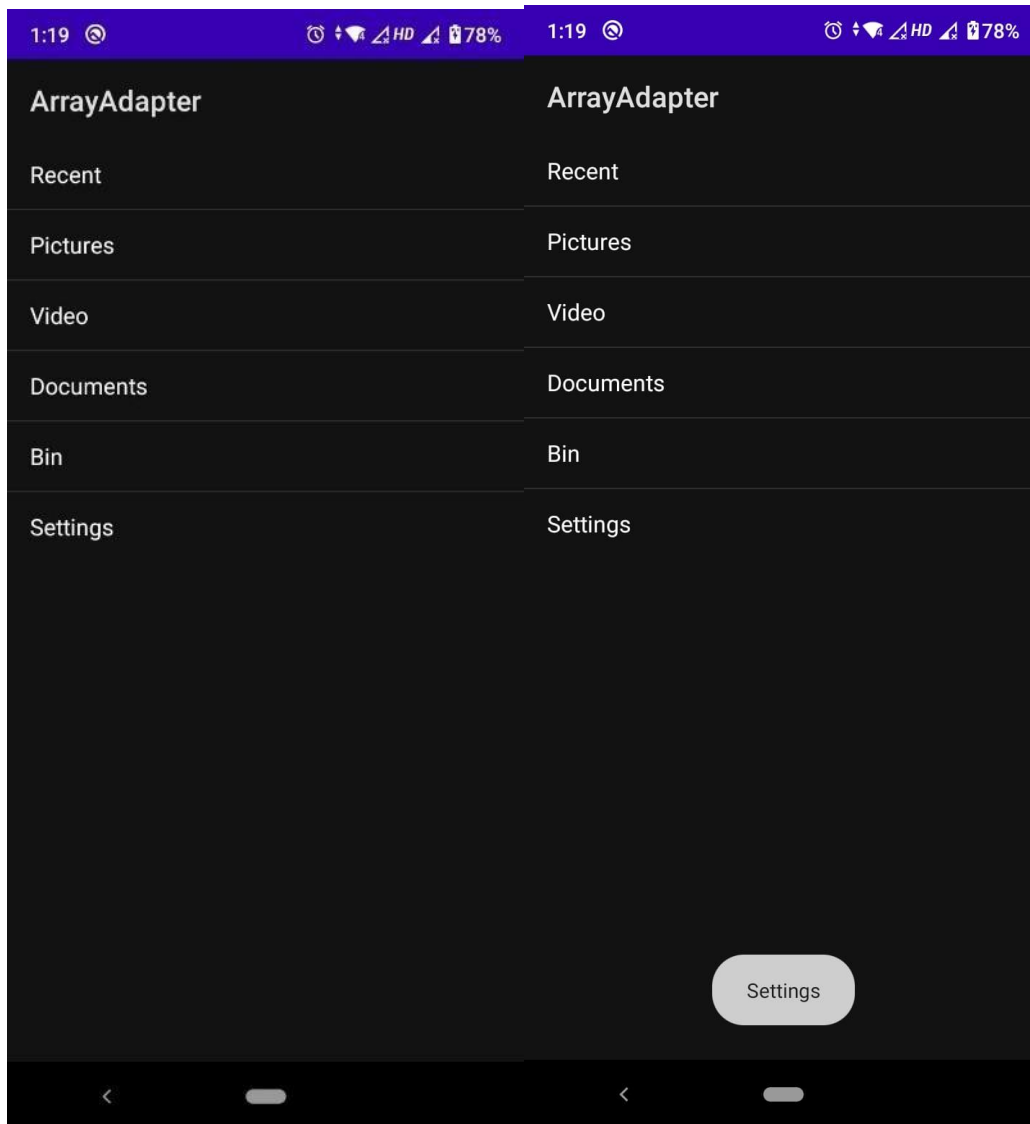**RESULT:** The above program is successfully executed and obtained the output

# PROGRAM 13

**AIM:** Develop an application that uses ArrayAdapter with ListView.

## PROGRAM CODE

| MainActivity.java | |
|---|---|
| | ```java
package com.example.arrayadapter;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.ListView;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        ListView list=findViewById(R.id.listview);
        String[] item=new
String[]{"Recent","Pictures","Video","Documents","Bin","Settings"};
        ArrayAdapter<String> myAdapter=new
ArrayAdapter<String>(MainActivity.this,
android.R.layout.simple_list_item_1,item);
        list.setAdapter(myAdapter);
        list.setOnItemClickListener(new
AdapterView.OnItemClickListener() {


            @Override
            public void onItemClick(AdapterView<?> parent,View view,int
position,long id) {
                String item_name=item[position];
                Toast.makeText(MainActivity.this,item_name,
Toast.LENGTH_SHORT).show();
            }

        });
}
}
``` |

| activity_main.xml | ```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/listview"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="1dp"
        tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>
``` |

# OUTPUT



**RESULT :** The above program is successfully executed and obtained the output.