COURSE OUTCOME-3

PROGRAM 1

AIM: Implement Adapters and perform exception handling

PROGRAM CODE

| MainActivity.java | ```java
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();
     }
  }
}
``` |
|---|---|

| 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="368dp"
                              android:layout_height="495dp"
                              app:layout_constraintBottom_toBottomOf="parent"
                              app:layout_constraintEnd_toEndOf="parent"
                              app:layout_constraintHorizontal_bias="0.372"
                              app:layout_constraintStart_toStartOf="parent"
                              app:layout_constraintTop_toTopOf="parent"
                              app:layout_constraintVertical_bias="0.361" />
                      </androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT

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

PROGRAM 2

AIM: Implement Intent to navigate between multiple activities

PROGRAM CODE
Indent1

MainActivity.java	
| | ```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);

    }
``` |

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"
    android:background="#EAE5E5"
    android:backgroundTint="#F8F2F2"
    tools:context=".MainActivity">

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

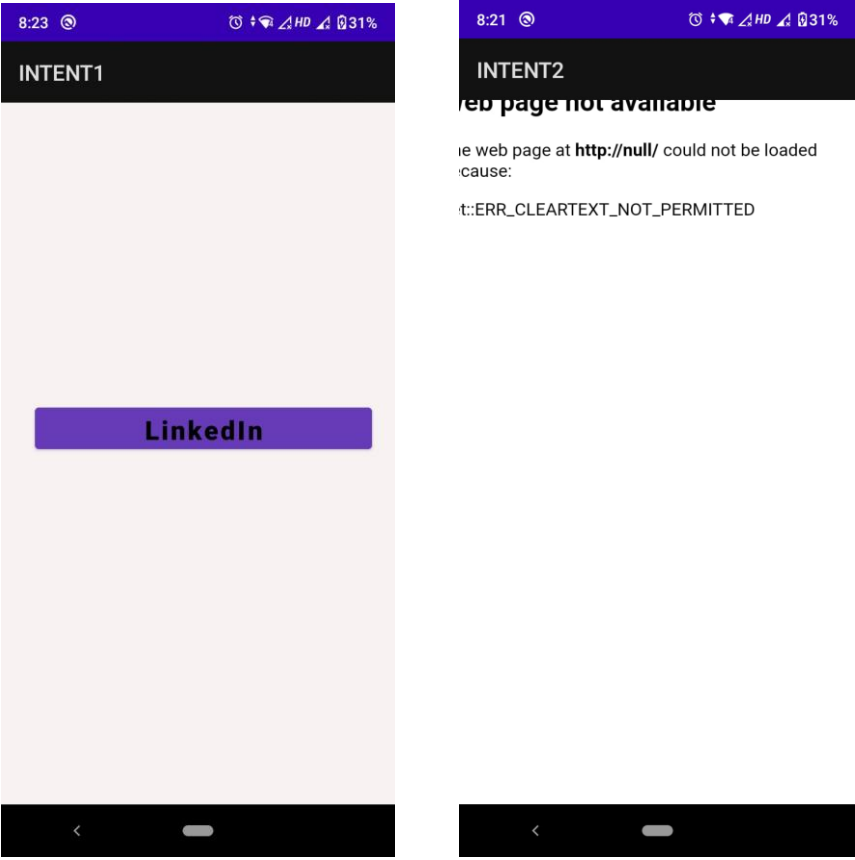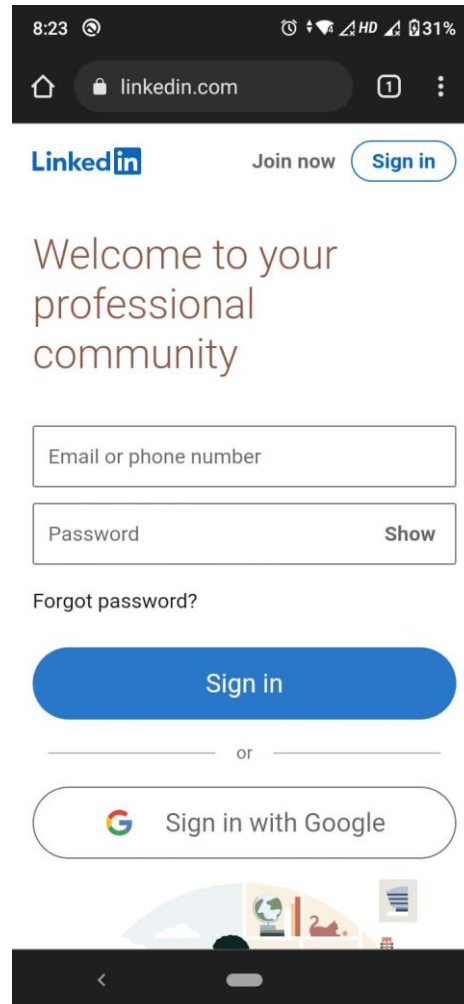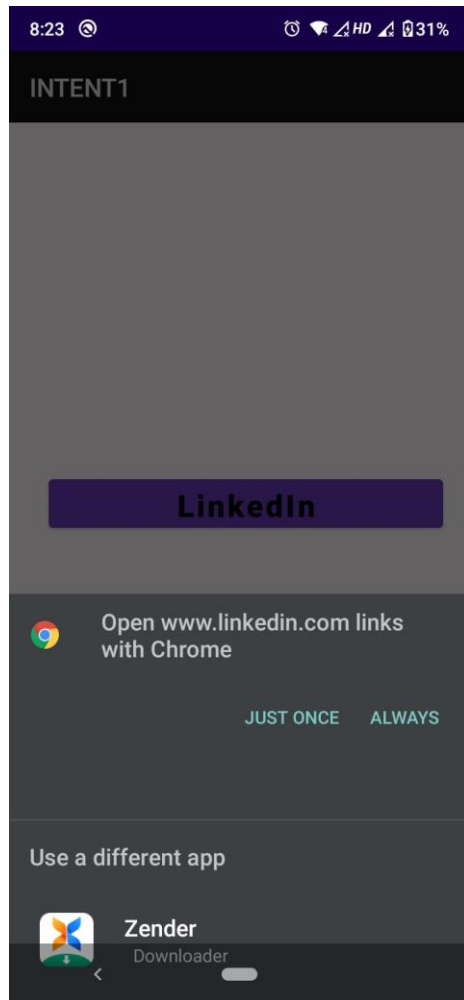|	
	android:layout_width="308dp" android:layout_height="50dp" android:backgroundTint="#673AB7" android:onClick="onClick" android:text="LinkedIn" android:textAllCaps="false" android:textSize="24sp" android:textStyle="bold" app:layout_constraintBottom_toBottomOf="parent" app:layout_constraintEnd_toEndOf="parent" app:layout_constraintHorizontal_bias="0.592" app:layout_constraintStart_toStartOf="parent" app:layout_constraintTop_toTopOf="parent" app:layout_constraintVertical_bias="0.461" /> </androidx.constraintlayout.widget.ConstraintLayout>

Indent2

| MainActivity.java | ```java
package com.example.intent2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.webkit.WebView;
import android.webkit.WebViewClient;
import android.widget.Toast;

import java.net.URL;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Intent i = getIntent();
        Uri uri = i.getData();
        URL pageurl = null;
        if(uri !=null){
            try{
                pageurl = new
URL(uri.getScheme(),uri.getHost(),uri.getPath());
``` |
|---|---|

| | ```
            }
         catch ( Exception e) {
            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 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 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"
	       android:exported="true">
	       <intent-filter tools:ignore ="AppLinkUrlError">
	         <action android:name="android.intent.action.VIEW" />
	
	         <category
	android:name="android.intent.category.DEFAULT" />
	       </intent-filter>
	    </activity>
	  </application>
	
	</manifest>

OUTPUT

INTENT1

LinkedIn

INTENT2

eb page not available

e web page at **http://null/** could not be loaded
cause:

t::ERR_CLEARTEXT_NOT_PERMITTED

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

PROGRAM 3

AIM: Develop application that works with explicit intents

PROGRAM CODE

| MainActivity.java | ```java
package com.example.co3_q3explicitintent;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void callActivity(View view) {
        Intent i = new Intent(getApplicationContext(), MainActivity2.class);
        final EditText editText1 = (EditText)findViewById(R.id.name);
        String msg = editText1.getText().toString();
        final EditText editText2 = (EditText)findViewById(R.id.address);
        String add = editText2.getText().toString();
        final EditText editText3 = (EditText)findViewById(R.id.email);
        String em = editText3.getText().toString();
        i.putExtra("Value1", msg);
        i.putExtra("Value2", add);
        i.putExtra("Value3", em);
        startActivity(i);
    }
}
``` |
|---|---|

| 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"
``` |
|---|---|

```xml
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        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"
```
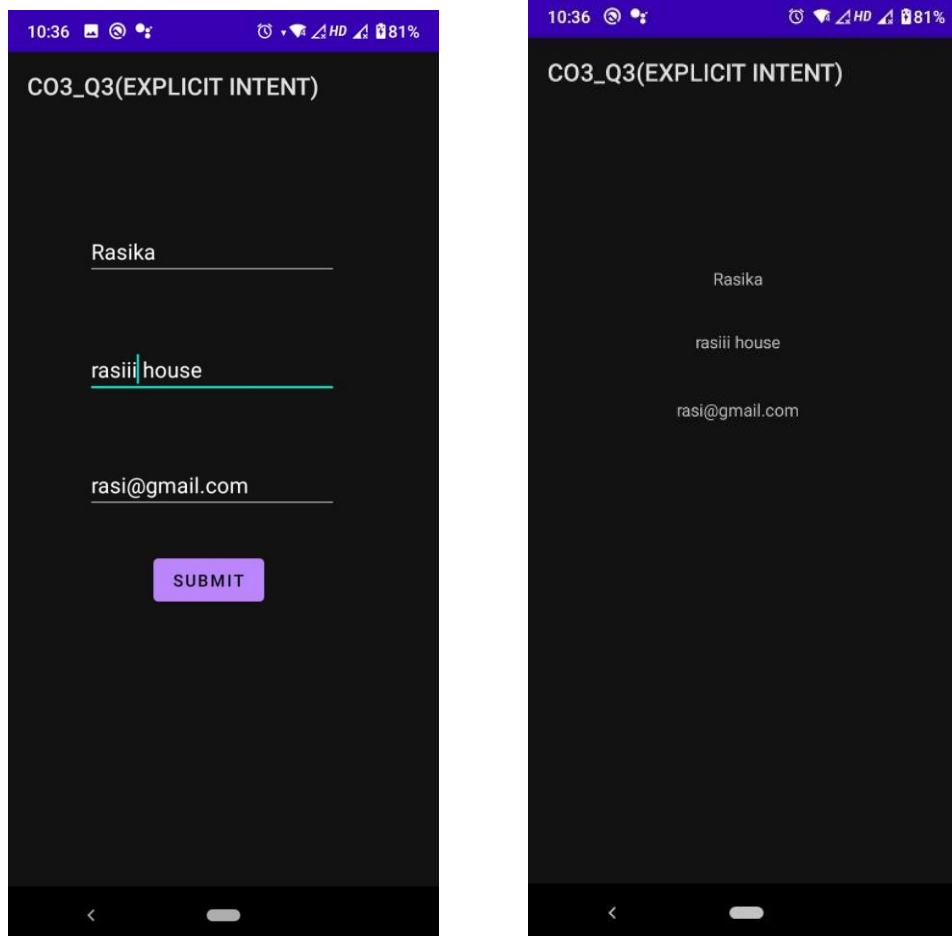

	app:layout_constraintTop_toTopOf="parent"
	app:layout_constraintVertical_bias="0.475" />
	
	   `<Button`
	     android:id="@+id/button"
	     android:layout_width="wrap_content"
	     android:layout_height="wrap_content"
	     android:text="Submit"
	     app:layout_constraintBottom_toBottomOf="parent"
	     app:layout_constraintEnd_toEndOf="parent"
	     app:layout_constraintHorizontal_bias="0.454"
	     app:layout_constraintStart_toStartOf="parent"
	     app:layout_constraintTop_toTopOf="parent"
	     app:layout_constraintVertical_bias="0.609" />
	`</androidx.constraintlayout.widget.ConstraintLayout>`
| MainActivity2.<br>java | ```java
package com.example.co3_q3explicitintent;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {

    TextView view1;
    TextView view2;
    TextView view3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        view1 = (TextView) findViewById(R.id.view1);
        view2 = (TextView) findViewById(R.id.view2);
        view3 = (TextView) findViewById(R.id.view3);
        Bundle extras = getIntent().getExtras();
        String value1 = extras.getString("Value1");
        String value2 = extras.getString("Value2");
        String value3 = extras.getString("Value3");
        view1.setText(value1);
        view2.setText(value2);
        view3.setText(value3);
    }

}
``` |

| activity_main2. 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=".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 4

AIM: Implement Options Menu to navigate to activities

PROGRAM CODE:

MainActivity.java	package com.example.optionmenu;

	<pre>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);
	      startActivity(home);
	    }</pre>

| | ```java
if(id==R.id.action_contact)
{
    Intent contact=new Intent(MainActivity.this,contact.class);
    startActivity(contact);
}
if(id==R.id.action_share)
{
    Intent share=new Intent(MainActivity.this,share.class);
    startActivity(share);
}
    return super.onOptionsItemSelected(item);
  }
}
``` |

| 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">

  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello World!"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
``` |
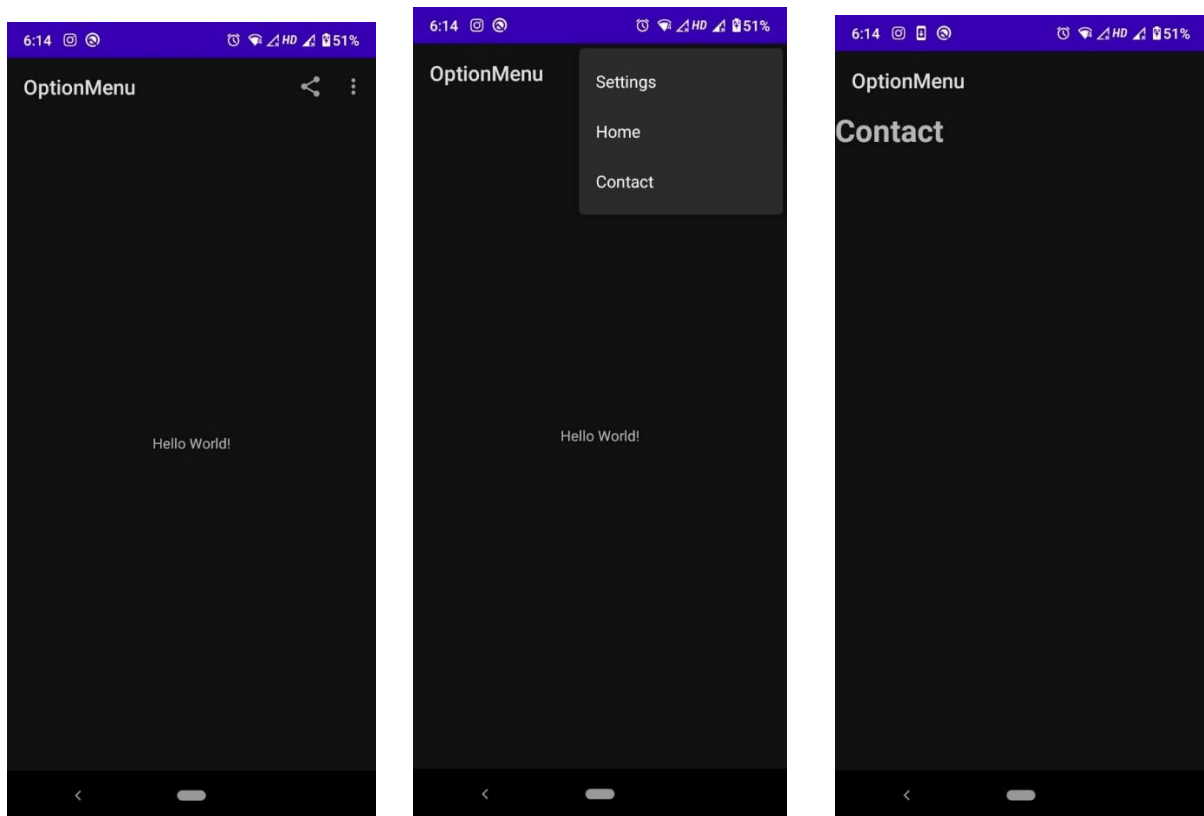
| Home.java | ```java
package com.example.optionmenu;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class home extends AppCompatActivity {

  @Override
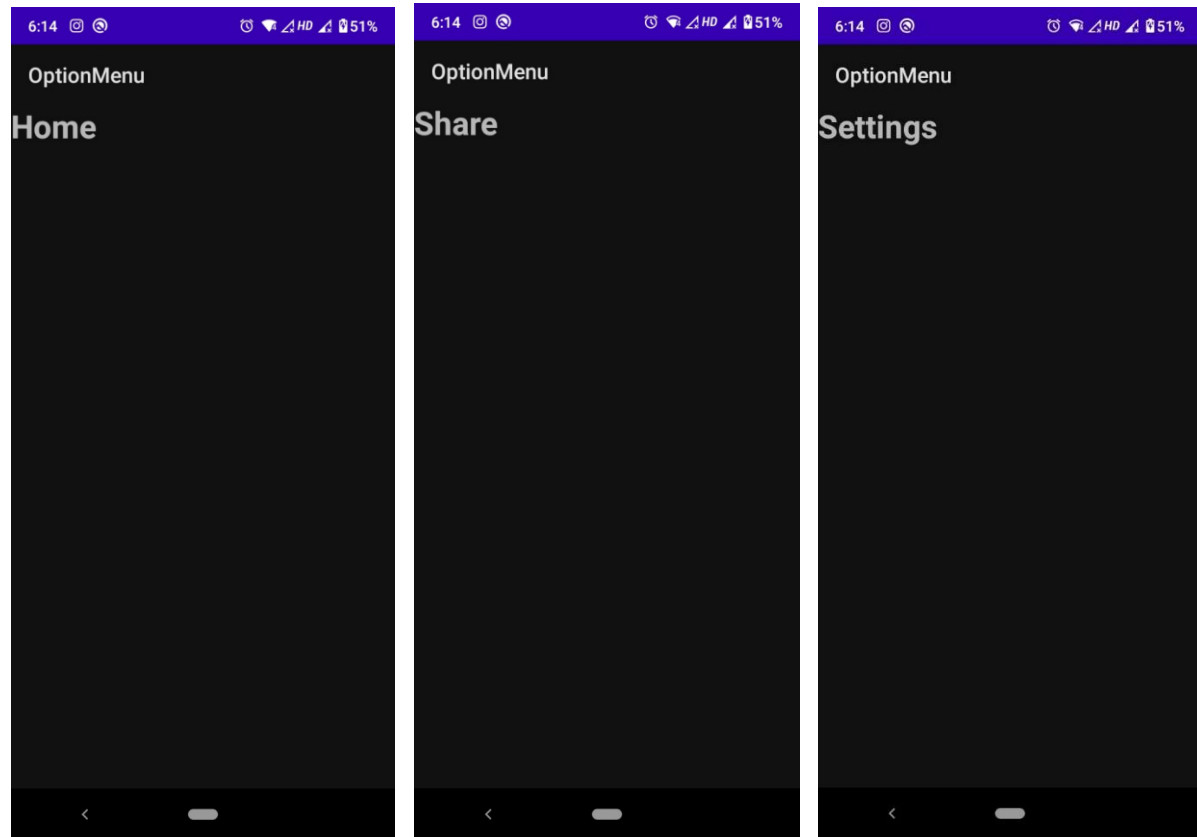  protected void onCreate(Bundle savedInstanceState) {
``` |

| | ```
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);
    }
}
``` |
| activity_home.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=".home">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Home"
        android:textSize="30sp"
        android:textStyle="bold"
        tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>
``` |
| Contact.java | ```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=".home">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Home"
        android:textSize="30sp"
        android:textStyle="bold"
        tools:ignore="MissingConstraints" />
</androidx.constraintlayout.widget.ConstraintLayout>
``` |
| activity_contact.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=".contact">
    <TextView
        android:layout_width="wrap_content"
``` |

	android:layout_height="wrap_content" android:text="Contact" android:textSize="30sp" android:textStyle="bold" tools:ignore="MissingConstraints" /> </androidx.constraintlayout.widget.ConstraintLayout>

Share.java	package com.example.optionmenu;
	
	import androidx.appcompat.app.AppCompatActivity;
	
	import android.os.Bundle;
	
	public class share extends AppCompatActivity {
	
	  @Override
	  protected void onCreate(Bundle savedInstanceState) {
	    super.onCreate(savedInstanceState);
	    setContentView(R.layout.activity_share);
	  }
	}

activity_share.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=".share">
	  <TextView
	    android:layout_width="wrap_content"
	    android:layout_height="wrap_content"
	    android:text="Share"
	    android:textSize="30sp"
	    android:textStyle="bold"
	    tools:ignore="MissingConstraints" />
	</androidx.constraintlayout.widget.ConstraintLayout>

Settings.java	package com.example.optionmenu;
	
	import androidx.appcompat.app.AppCompatActivity;
	
	import android.os.Bundle;
	
	public class settings extends AppCompatActivity {
	
	  @Override
	  protected void onCreate(Bundle savedInstanceState) {

	super.onCreate(savedInstanceState);
	     setContentView(R.layout.activity_settings);
	  }
	}

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 5

AIM: Develop an application that uses ArrayAdapter with ListView.

PROGRAM CODE:

MainActivity.java	package com.example.arrayadapter;
	(see code below)

```java
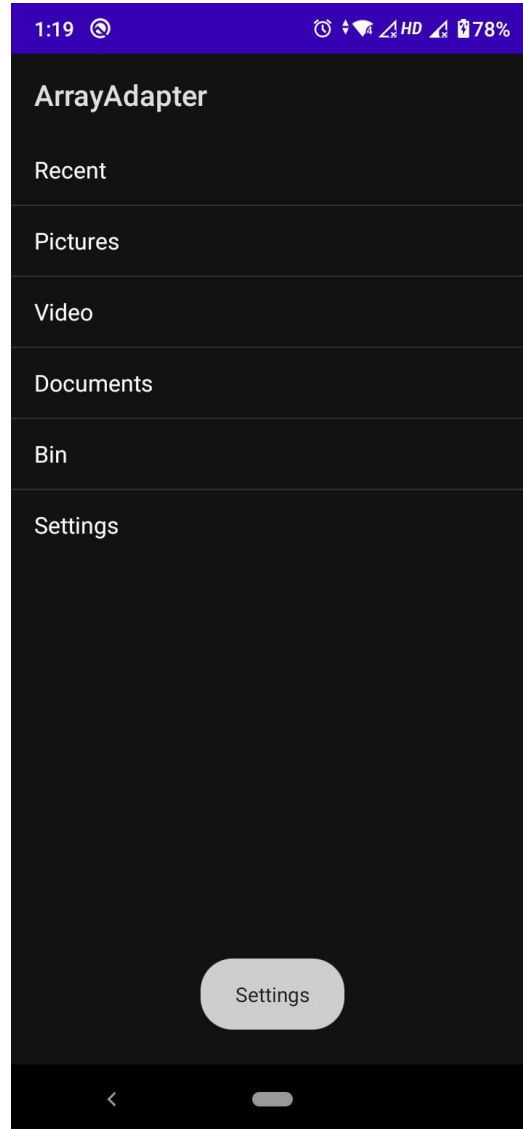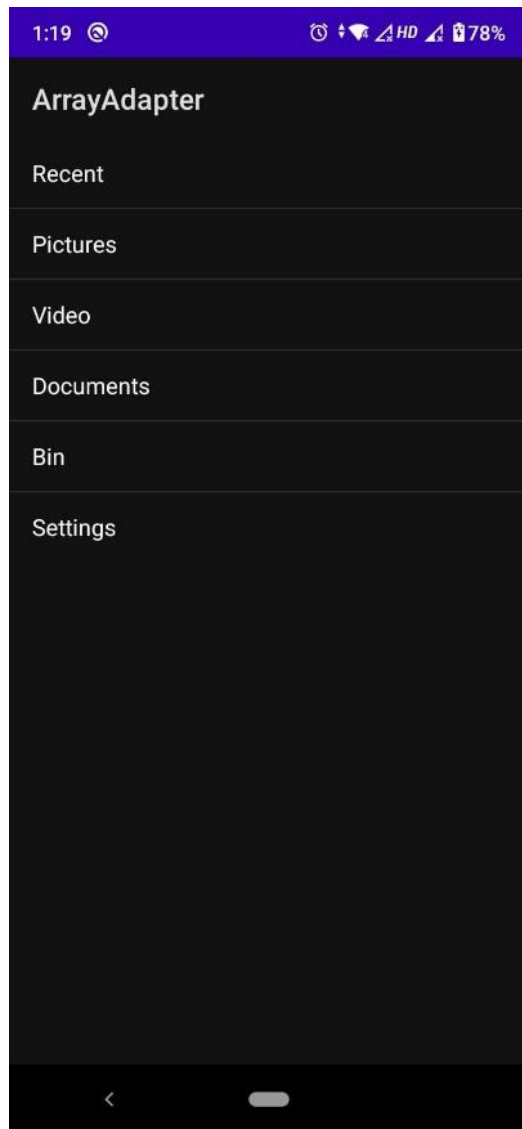package com.example.arrayadapter;

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.