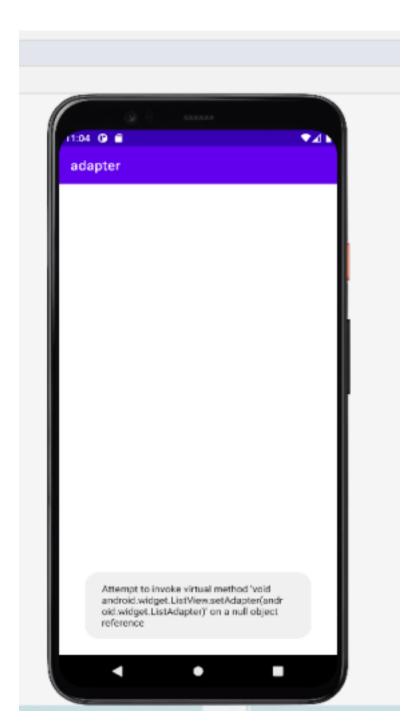


PROGRAM -1

AIM:Implement Adapters and perform exception handling.

```
MainActivity.java
                            package com.example.adapter;
                            import androidx.appcompat.app.AppCompatActivity;
                            import android.os.Bundle;
                            import android.widget.ArrayAdapter;
                            import android.widget.ListView;
                            import android.widget.Toast;
                            public class MainActivity extends AppCompatActivity
                               { ListView lv;
                              @Override
                              protected void onCreate(Bundle savedInstanceState) {
                                 super.onCreate(savedInstanceState);
                                 setContentView(R.layout.activity main);
                                 try {
                                   String[] actor = new String[]{"mohanlal", "mammootty",
                            "jayasurya", "asif ali", "pranav", "nivin paully", "tovino",
                            "vineeth", "dulkar", "fahad"};
                                   ArrayAdapter<String> arrayAdapter = new
                            ArrayAdapter(MainActivity.this,
                            android.R.layout.simple list item 1, actor);
                                   lv.setAdapter(arrayAdapter);
                                 catch(Exception e){
                            Toast.makeText(this,e.getMessage(),Toast.LENGTH SHORT).show
                                 (); \} \} \}
activity main.xml
                            <?xml version="1.0" encoding="utf-8"?>
                            <RelativeLayout
                            xmlns:android="http://schemas.android.com/apk/res/androi
                             d" 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/list"
                                 android:layout width="match parent"
                                 android:layout height="match parent" />
                            </RelativeLayout>
```



RESULT

<u>AIM:</u>Implement Intent to navigate between multiple activities.

```
MainActivity.java
                          package com.example.explicitintent;
                          import androidx.appcompat.app.AppCompatActivity;
                          import android.content.Intent;
                          import android.os.Bundle;
                          import android.text.TextUtils;
                          import android.util.Patterns;
                          import android.view.View;
                          import android.widget.Button;
                          import android.widget.EditText;
                          import android.widget.Toast;
                          import java.util.Objects;
                          public class MainActivity extends AppCompatActivity {
                            EditText Name:
                            EditText address;
                            EditText email;
                            Button Submit;
                            @Override
                            protected void onCreate(Bundle
                               savedInstanceState) {
                               super.onCreate(savedInstanceState);
                               setContentView(R.layout.activity main);
                              Name = findViewById(R.id.name);
                               address = findViewById(R.id.address);
                               email = findViewById(R.id.email);
                               Submit = findViewById(R.id.button);
                            public void callSecondActivity(View view) {
                               Intent i = new Intent(getApplicationContext(),
                          MainActivity2.class);
                               String str = "Name : "+ Name.getText().toString();
                               i.putExtra("Value1", str);
                               String str1 ="Address: "+ address.getText().toString();
                               i.putExtra("Value2", str1);
```

```
String str2 = "Email: "+ email.getText().toString();
                               i.putExtra("Value3", str2);
                               startActivity(i);
                          }
                          package com.example.explicitintent;
MainActivity2.java
                          import androidx.appcompat.app.AppCompatActivity;
                          import android.os.Bundle;
                          import android.content.Intent;
                          import android.view.View;
                          import android.widget.TextView;
                          import android.widget.Toast;
                          public class MainActivity2 extends AppCompatActivity {
                             @Override
                             protected void onCreate(Bundle
                               savedInstanceState) { TextView t1;
                               TextView t2;
                               TextView t3;
                               super.onCreate(savedInstanceState);
                               setContentView(R.layout.activity main2);
                               t1 = (TextView) findViewById(R.id.t1);
                               t2 = (TextView) findViewById(R.id.t2);
                               t3 = (TextView) findViewById(R.id.t3);
                               // create the get Intent object
                               Intent intent = getIntent();
                               // receive the value by getStringExtra() method
                               // and key must be same which is send by first
                               activity String str =
                               intent.getStringExtra("Value1");
                               String str1 = intent.getStringExtra("Value2");
                               String str2 = intent.getStringExtra("Value3");
                               // display the string into textView
                               t1.setText(str);
                               t2.setText(str1);
                               t3.setText(str2);
```

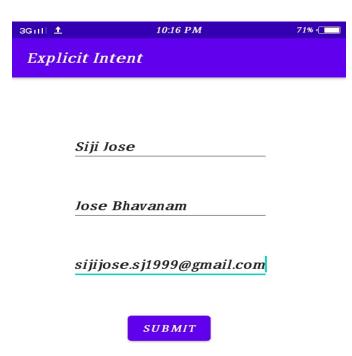
```
<?xml version="1.0" encoding="utf-8"?>
activity main.xml
                        <androidx.constraintlayout.widget.ConstraintLayout
                        xmlns:android="http://schemas.android.com/apk/res/androi
                          xmlns:app="http://schemas.android.com/apk/res-auto"
                          xmlns:tools="http://schemas.android.com/tools"
                           android:layout width="match parent"
                           android:layout height="match parent"
                          tools:context=".MainActivity">
                          <EditText
                             android:id="@+id/name"
                             android:layout width="wrap content"
                             android:layout height="wrap content"
                             android:ems="10"
                             android:hint="Name"
                             android:inputType="textPersonName"
                             android:minHeight="48dp"
                             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"
                             android:minHeight="48dp"
                             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:minHeight="48dp"
                             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"
                             android:onClick="callSecondActivity"
                             app:layout constraintBottom toBottomOf="parent"
                             app:layout constraintEnd toEndOf="parent"
                             app:layout constraintHorizontal bias="0.461"
                             app:layout constraintStart toStartOf="parent"
                             app:layout constraintTop toTopOf="parent"
                             app:layout constraintVertical bias="0.654" />
                        </androidx.constraintlayout.widget.ConstraintLayout>
activity main2.xml
                        <?xml version="1.0" encoding="utf-8"?>
                        <androidx.constraintlayout.widget.ConstraintLayout</pre>
                        xmlns:android="http://schemas.android.com/apk/res/androi
                           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/t1"
                             android:layout width="312dp"
                             android:layout height="73dp"
                             app:layout constraintBottom toBottomOf="parent"
                             app:layout constraintEnd toEndOf="parent"
                             app:layout constraintHorizontal bias="0.517"
                             app:layout constraintStart toStartOf="parent"
                             app:layout constraintTop toTopOf="parent"
                             app:layout constraintVertical bias="0.387"/>
                             <TextView
                             android:id="@+id/t2"
                             android:layout width="309dp"
```

android:layout height="77dp"

app:layout constraintBottom toBottomOf="parent" app:layout constraintEnd toEndOf="parent" app:layout constraintHorizontal bias="0.509" app:layout constraintStart toStartOf="parent" app:layout constraintTop toTopOf="parent" app:layout constraintVertical bias="0.559" /> <TextView android:id="@+id/t3" android:layout width="313dp" android:layout height="70dp" app:layout constraintBottom toBottomOf="parent" app:layout constraintEnd toEndOf="parent" app:layout_constraintStart_toStartOf="parent" app:layout_constraintTop toTopOf="parent" app:layout constraintVertical bias="0.728"/> </androidx.constraintlayout.widget.ConstraintLayout>

OUTPUT



Name : Siji Jose

Address: Jose Bhavanam

Email: sijijose.sj1999@gmail.com

RESULT

AIM: Develop an application that works with explicit intents.

```
MainActivity.java
                        package com.example.explicitintent_1;
                        import androidx.appcompat.app.AppCompatActivity;
                        import android.content.Intent;
                        import android.net.Uri;
                        import android.os.Bundle;
                        import android.view.View;
                        import android.widget.Toast;
                        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://business.instagram.com"));
                             startActivity(i);
```

```
package com.example.explicitintent 2;
MainActivity2.java
                        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",Toast.LENGTH
                        LONG).show();
                               }
                            WebView wb =(WebView) findViewById(R.id.webvi);
                            wb.setWebViewClient(new WebViewClient());
                            wb.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/webvi"
 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"/>

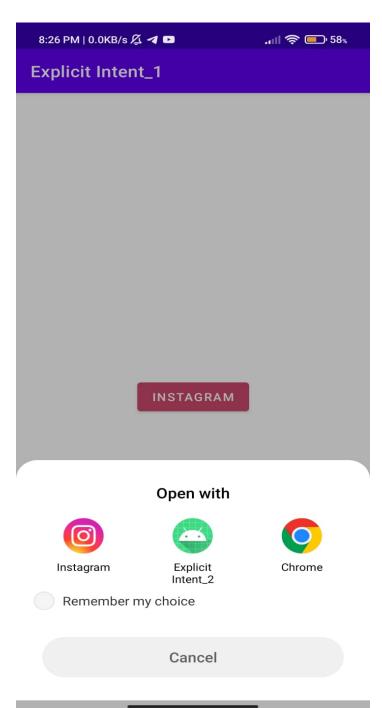
</androidx.constraintlayout.widget.ConstraintLayout>

activity main2.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/webvi"
 android:layout_width="409dp"
 android:layout_height="729dp"
 android:layout_marginStart="1dp"
 android:layout_marginTop="1dp"
 android:layout_marginEnd="1dp"
 android:layout_marginBottom="1dp"
 android:layout_marginBottom="1dp"
 app:layout_constraintBottom_toBottomOf="parent"
 app:layout_constraintStart_toStartOf="parent"
 app:layout_constraintTop_toTopOf="parent"/>

</androidx.constraintlayout.widget.ConstraintLayout>







RESULT

AIM:Implement Options Menu to navigate to activities.

```
MainActivity.java
                         package com.example.option;
                         import androidx.appcompat.app.AppCompatActivity;
                         import android.os.Bundle;
                         import androidx.annotation.NonNull;
                         import android.content.Intent;
                         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 i= getMenuInflater();
                              i.inflate(R.menu.menu option,menu);
                              return true;
                              // return super.onCreateOptionsMenu(menu);
                            @Override
                            public boolean onOptionsItemSelected(@NonNull
                         MenuItem item)
                              int id=item.getItemId();
                              if(id==R.id.action contact)
                                 Intent contactintent=new
                         Intent(MainActivity.this,contact.class);
                                startActivity(contactintent);
                              if(id==R.id.action settings)
                                Intent settingsintent=new
```

```
contact.java
                          Intent(MainActivity.this,settings.class);
                                 startActivity(settingsintent);
                               if (id==R.id.action help)
                                 Intent helpintent=new
                                 Intent(MainActivity.this,help.class);
                                 startActivity(helpintent);
                               if(id==R.id.action_share)
                                 Intent shareintent=new
                                 Intent(MainActivity.this,share.class);
                                 startActivity(shareintent);
                               return super.onOptionsItemSelected(item);
                          package com.example.option;
                          androidx.appcompat.app.AppCompatActivity;
                          import android.os.Bundle;
                          public class contact extends AppCompatActivity {
                            @Override
                            protected void onCreate(Bundle
                               savedInstanceState) {
                               super.onCreate(savedInstanceState);
                               setContentView(R.layout.activity contact);
                          }
help.java
                          package com.example.option;
                          import
                          androidx.appcompat.app.AppCompatActivity;
                          import android.os.Bundle;
                          public class help extends AppCompatActivity {
                            @Override
                            protected void onCreate(Bundle
                               savedInstanceState) {
                               super.onCreate(savedInstanceState);
```

```
setContentView(R.layout.activity_help);
}
```

```
settings.java
                          package com.example.option;
                          import
                         and roid x. app compat. app. App Compat Activity;\\
                          import android.os.Bundle;
                         public class settings extends AppCompatActivity {
                            @Override
                            protected void onCreate(Bundle
                              savedInstanceState) {
                              super.onCreate(savedInstanceState);
                              setContentView(R.layout.activity settings);
share.java
                          package com.example.option;
                         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);
```

```
android:layout width="197dp"
                             android:layout height="84dp"
                             android:text="Welcome to this page"
                             app:layout constraintBottom toBottomOf="parent"
                             app:layout constraintEnd toEndOf="parent"
                             app:layout constraintStart toStartOf="parent"
                             app:layout constraintTop toTopOf="parent" />
                        </androidx.constraintlayout.widget.ConstraintLayout>
                        <?xml version="1.0" encoding="utf-8"?>
activity contact.xml
                        <androidx.constraintlayout.widget.ConstraintLayout</pre>
                        xmlns:android="http://schemas.android.com/apk/res/androi
                           d"
                           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:id="@+id/textView2"
                             android:layout width="172dp"
                             android:layout height="45dp"
                             android:text="Contact"
                             app:layout constraintBottom toBottomOf="parent"
                             app:layout constraintEnd toEndOf="parent"
                             app:layout constraintHorizontal bias="0.439"
                             app:layout constraintStart toStartOf="parent"
                             app:layout constraintTop toTopOf="parent"
                             app:layout constraintVertical bias="0.294" />
                        </androidx.constraintlayout.widget.ConstraintLayout>
```

```
activity_help.xml

<!xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/androi
d"
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=".help">

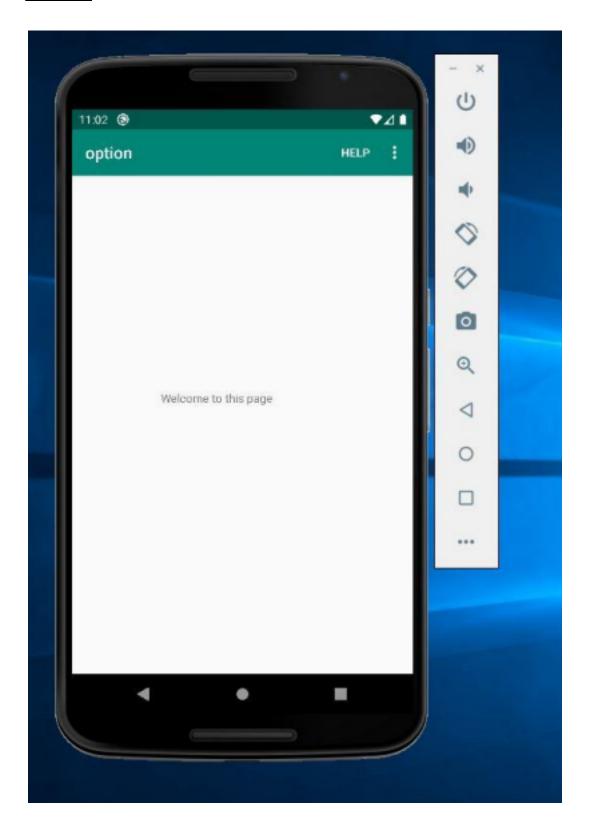
<TextView
android:layout_width="172dp"
android:layout_height="45dp"
android:layout_height="45dp"
android:text="Help"
app:layout_constraintBottom_toBottomOf="parent"</pre>
```

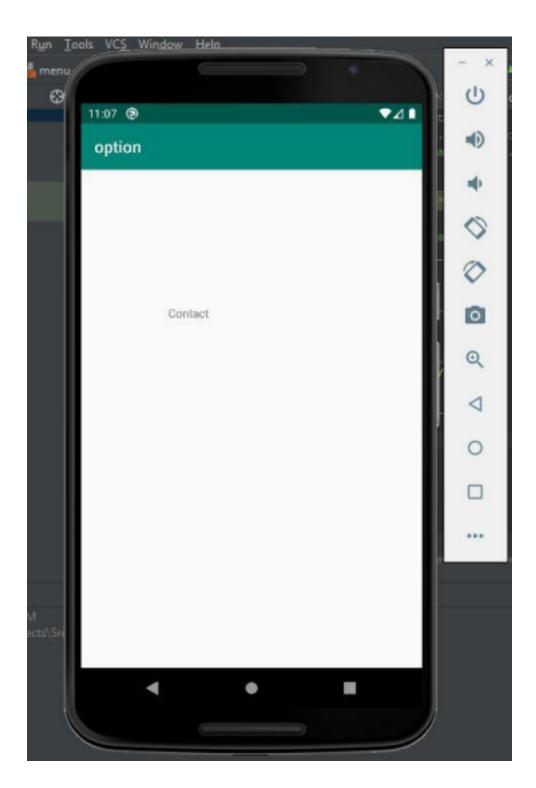
```
app:layout constraintEnd toEndOf="parent"
                             app:layout constraintHorizontal bias="0.439"
                             app:layout constraintStart toStartOf="parent"
                             app:layout constraintTop toTopOf="parent"
                             app:layout constraintVertical bias="0.294" />
                        </androidx.constraintlayout.widget.ConstraintLayout>
activity settings.xml
                        <?xml version="1.0" encoding="utf-8"?>
                        <androidx.constraintlayout.widget.ConstraintLayout
                        xmlns:android="http://schemas.android.com/apk/res/androi
                           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:id="@+id/textView2"
                             android:layout width="172dp"
                             android:layout height="45dp"
                             android:text="Settings"
                             app:layout constraintBottom toBottomOf="parent"
                             app:layout constraintEnd toEndOf="parent"
                             app:layout constraintHorizontal bias="0.439"
                             app:layout constraintStart toStartOf="parent"
                             app:layout constraintTop toTopOf="parent"
                             app:layout constraintVertical bias="0.294" />
                        </androidx.constraintlayout.widget.ConstraintLayout>
```

```
activity share.xml
                         <?xml version="1.0" encoding="utf-8"?>
                         <androidx.constraintlayout.widget.ConstraintLayout</pre>
                         xmlns:android="http://schemas.android.com/apk/res/androi
                           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:id="@+id/textView2"
                             android:layout width="172dp"
                             android:layout height="45dp"
                             android:text="Share"
                             app:layout constraintBottom toBottomOf="parent"
                             app:layout constraintEnd toEndOf="parent"
                             app:layout constraintHorizontal bias="0.439"
                             app:layout constraintStart toStartOf="parent"
```

```
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.294" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

```
menu option.xml
                         <?xml version="1.0" encoding="utf-8"?>
                         <menu xmlns:app="http://schemas.android.com/apk/res-auto"</pre>
                         xmlns:android="http://schemas.android.com/apk/res/android">
                         <item
                         android:id="@+id/action_settings"
                         android:title="settings"/>
                         <item
                         app:showAsAction="always"
                         android:id="@+id/action help"
                         android:title="help"/>
                         <item
                         android:id="@+id/action home"
                         android:title="home"/>
                         <item
                         android:id="@+id/action contact"
                         android:title="contact"/>
                         <item
                         android:id="@+id/action share"
                         android:title="share"/>
                         </menu>
```



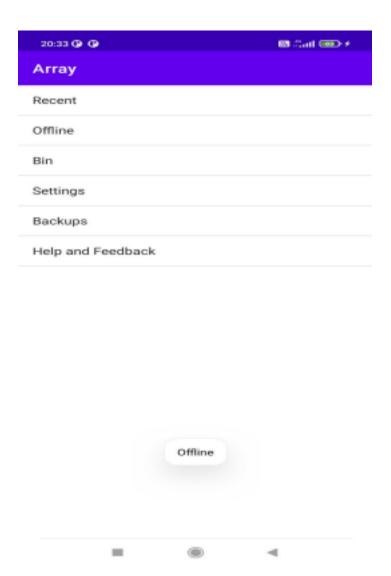


RESULT

AIM: Develop an application that uses ArrayAdapter with ListView.

```
MainActivity.java
                         package com.example.array;
                         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", "Offline", "Bin", "Settings", "Backups", "Help
                         and Feedback"};
                              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 version="1.0" encoding="utf-8"?>
                        <androidx.constraintlayout.widget.ConstraintLayout
                        xmlns:android="http://schemas.android.com/apk/res/androi
                           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="409dp"
                             android:layout_height="729dp"
                             tools:layout editor absoluteX="1dp"
                             tools:layout_editor_absoluteY="1dp"
                             tools:ignore="MissingConstraints" />
                        </androidx.constraintlayout.widget.ConstraintLayout>
```



RESULT