

Lab Assignment- 5

Blue Print:

Activity_main.xml:

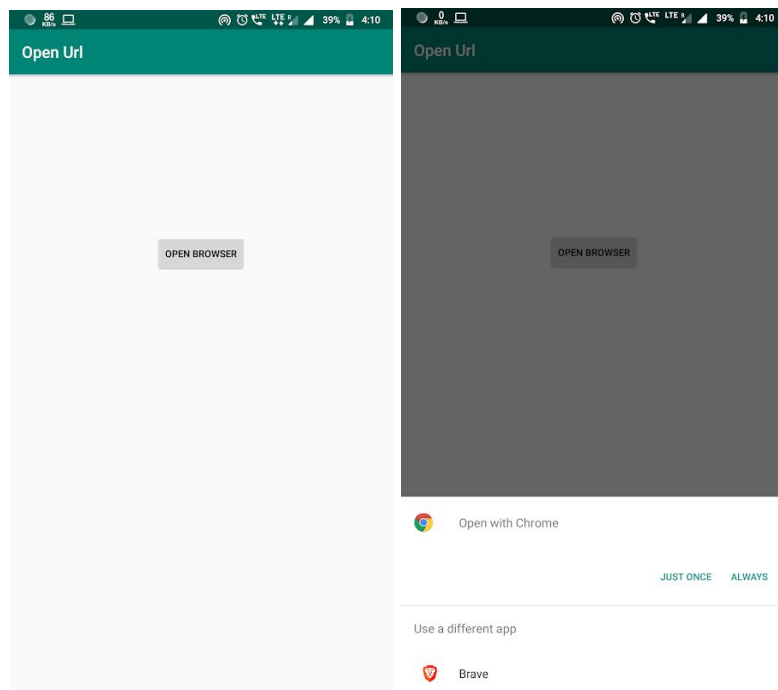
```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <Button
        android:id="@+id/openbrowser"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="199dp"
        android:text="Open Browser"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java:

```
package com.example.openurl;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Button openBrowser = (Button) findViewById(R.id.openbrowser);
        openBrowser.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent(Intent.ACTION_VIEW,
Uri.parse("https://abhiandroid.com/"));
                startActivity(intent);
            }
        });
    }
}
```



Output:



2.

Android supports two types of intents: explicit and implicit. When an application defines its target component in an intent, that it is an explicit intent. When the application does not name a target component, that it is an implicit intent.

Sr.No	Activity Action Intent & Description
-------	--------------------------------------

1	ACTION_ALL_APPS List all the applications available on the device.
2	ACTION_ANSWER Handle an incoming phone call.
3	ACTION_ATTACH_DATA Used to indicate that some piece of data should be attached to some other place
4	ACTION_BATTERY_CHANGED This is a sticky broadcast containing the charging state, level, and other information about the battery.
5	ACTION_BATTERY_LOW This broadcast corresponds to the "Low battery warning" system dialog.
6	ACTION_BATTERY_OKAY This will be sent after ACTION_BATTERY_LOW once the battery has gone back up to an okay state.
7	ACTION_BOOT_COMPLETED This is broadcast once, after the system has finished booting.
8	ACTION_BUG_REPORT Show activity for reporting a bug.
9	ACTION_CALL Perform a call to someone specified by the data.
10	ACTION_CALL_BUTTON The user pressed the "call" button to go to the dialer or other appropriate UI for placing a call.
11	ACTION_CAMERA_BUTTON The "Camera Button" was pressed.
12	ACTION_CHOOSER Display an activity chooser, allowing the user to pick what they want to before proceeding.
13	ACTION_CONFIGURATION_CHANGED The current device Configuration (orientation, locale, etc) has changed.

14	ACTION_DATE_CHANGED The date has changed.
15	ACTION_DEFAULT A synonym for ACTION_VIEW, the "standard" action that is performed on a piece of data.
16	ACTION_DELETE Delete the given data from its container.
17	ACTION_DEVICE_STORAGE_LOW A sticky broadcast that indicates low memory condition on the device.
18	ACTION_DEVICE_STORAGE_OK Indicates low memory condition on the device no longer exists.
19	ACTION_DIAL Dial a number as specified by the data.
20	ACTION_DOCK_EVENT A sticky broadcast for changes in the physical docking state of the device.
21	ACTION_DREAMING_STARTED Sent after the system starts dreaming.
22	ACTION_DREAMING_STOPPED Sent after the system stops dreaming.
23	ACTION_EDIT Provide explicit editable access to the given data.
24	ACTION_FACTORY_TEST Main entry point for factory tests.
25	ACTION_GET_CONTENT Allow the user to select a particular kind of data and return it.
26	ACTION_GTALK_SERVICE_CONNECTED A GTalk connection has been established.
27	ACTION_GTALK_SERVICE_DISCONNECTED A GTalk connection has been disconnected.

28	ACTION_HEADSET_PLUG Wired Headset plugged in or unplugged.
29	ACTION_INPUT_METHOD_CHANGED An input method has been changed.
30	ACTION_INSERT Insert an empty item into the given container.
31	ACTION_INSERT_OR_EDIT Pick an existing item, or insert a new item, and then edit it.
32	ACTION_INSTALL_PACKAGE Launch application installer.
33	ACTION_LOCALE_CHANGED The current device's locale has changed.
34	ACTION_MAIN Start as a main entry point, does not expect to receive data.
35	ACTION_MEDIA_BUTTON The "Media Button" was pressed.
36	ACTION_MEDIA_CHECKING External media is present, and being disk-checked.
37	ACTION_MEDIA_EJECT User has expressed the desire to remove the external storage media.
38	ACTION_MEDIA_REMOVED External media has been removed.
39	ACTION_NEW_OUTGOING_CALL An outgoing call is about to be placed.
40	ACTION_PASTE Create a new item in the given container, initializing it from the current contents of the clipboard.
41	ACTION_POWER_CONNECTED External power has been connected to the device.

42	ACTION_REBOOT Have the device reboot. This is only for use by system code.
43	ACTION_RUN Run the data, whatever that means.
44	ACTION_SCREEN_OFF Sent after the screen turns off.
45	ACTION_SCREEN_ON Sent after the screen turns on.
46	ACTION_SEARCH Perform a search.
47	ACTION_SEND Deliver some data to someone else.
48	ACTION_SENDTO Send a message to someone specified by the data.
49	ACTION_SEND_MULTIPLE Deliver multiple data to someone else.
50	ACTION_SET_WALLPAPER Show settings for choosing wallpaper.
51	ACTION_SHUTDOWN Device is shutting down.
52	ACTION_SYNC Perform a data synchronization.
53	ACTION_TIMEZONE_CHANGED The timezone has changed.
54	ACTION_TIME_CHANGED The time was set.
55	ACTION_VIEW Display the data to the user.

56	ACTION_VOICE_COMMAND Start Voice Command.
57	ACTION_WALLPAPER_CHANGED The current system wallpaper has changed.
58	ACTION_WEB_SEARCH Perform a web search.

Intent Categories:

Sr.No	Categories & Description
1	CATEGORY_APP_BROWSER Used with ACTION_MAIN to launch the browser application.
2	CATEGORY_APP_CALCULATOR Used with ACTION_MAIN to launch the calculator application.
3	CATEGORY_APP_CALENDAR Used with ACTION_MAIN to launch the calendar application.
4	CATEGORY_APP_CONTACTS Used with ACTION_MAIN to launch the contacts application.
5	CATEGORY_APP_EMAIL Used with ACTION_MAIN to launch the email application.
6	CATEGORY_APP_GALLERY Used with ACTION_MAIN to launch the gallery application.
7	CATEGORY_APP_MAPS Used with ACTION_MAIN to launch the maps application.
8	CATEGORY_APP_MARKET This activity allows the user to browse and download new applications.
9	CATEGORY_APP_MESSAGING Used with ACTION_MAIN to launch the messaging application.

10	CATEGORY_APP_MUSIC Used with ACTION_MAIN to launch the music application.
11	CATEGORY_BROWSABLE Activities that can be safely invoked from a browser must support this category.
12	CATEGORY_CAR_DOCK An activity to run when device is inserted into a car dock.
13	CATEGORY_CAR_MODE Used to indicate that the activity can be used in a car environment.
14	CATEGORY_DEFAULT Set if the activity should be an option for the default action (center press) to perform on a piece of data.
15	CATEGORY_DESK_DOCK An activity to run when device is inserted into a car dock.
16	CATEGORY_DEVELOPMENT_PREFERENCE This activity is a development preference panel.
17	CATEGORY_EMBED Capable of running inside a parent activity container.
18	CATEGORY_FRAMEWORK_INSTRUMENTATION_TEST To be used as code under test for framework instrumentation tests.
19	CATEGORY_HE_DESK_DOCK An activity to run when device is inserted into a digital (high end) dock.
20	CATEGORY_HOME This is the home activity, that is the first activity that is displayed when the device boots.
21	CATEGORY_INFO Provides information about the package it is in.
22	CATEGORY_LAUNCHER Should be displayed in the top-level launcher.

23	CATEGORY_LE_DESK_DOCK An activity to run when device is inserted into a analog (low end) dock.
24	CATEGORY_MONKEY This activity may be exercised by the monkey or other automated test tools.
25	CATEGORY_OPENABLE Used to indicate that a GET_CONTENT intent only wants URIs that can be opened with ContentResolver.openInputStream.
26	CATEGORY_PREFERENCE This activity is a preference panel.
27	CATEGORY_TAB Intended to be used as a tab inside of a containing TabActivity.
28	CATEGORY_TEST To be used as a test (not part of the normal user experience).
29	CATEGORY_UNIT_TEST To be used as a unit test (run through the Test Harness).

4.Using intent implement an app which can send a mail(with mail id, subject and message)

Blue Print:



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">

    <EditText

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="82dp"
```

```
android:layout_marginBottom="84dp"
```

```
android:ems="10"
```

```
android:inputType="textPersonName"
```

```
app:layout_constraintBottom_toTopOf="@+id/msg"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

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

```
<EditText
```

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginStart="3dp"
```

```
android:layout_marginLeft="3dp"
```

```
android:layout_marginTop="21dp"
```

```
android:ems="10"
```

```
android:inputType="textPersonName"
```

```
app:layout_constraintStart_toStartOf="@+id/to"
```

```
app:layout_constraintTop_toBottomOf="@+id/to" />
```

```
<EditText
```

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

```
android:layout_width="202dp"
```

```
android:layout_height="67dp"
```

```
android:layout_marginBottom="252dp"
```

```
android:ems="10"
```

```
android:inputType="textPersonName"
```

```
app:layout_constraintBottom_toBottomOf="parent"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/to" />
```

```
<Button
```

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="56dp"
```

```
android:text="Send"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/msg" />
```

```
<TextView
```

```
android:id="@+id/textView2"
```

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginStart="20dp"
```

```
android:layout_marginLeft="20dp"
```

```
android:text="To :"
```

```
app:layout_constraintBaseline_toBaselineOf="@+id/to"
```

```
app:layout_constraintStart_toStartOf="parent" />
```

```
<TextView
```

```
android:id="@+id/textView3"
```

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginStart="22dp"
```

```
android:layout_marginLeft="22dp"
```

```
android:text="Subject :"
```

```
app:layout_constraintBaseline_toBaselineOf="@+id/sub"
```

```
app:layout_constraintStart_toStartOf="parent" />
```

```
<TextView
```

```
android:id="@+id/textView4"
```

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginStart="22dp"
```

```
android:layout_marginLeft="22dp"
```

```
android:text="Message :"
```

```
app:layout_constraintBaseline_toBaselineOf="@+id/msg"
```

```
app:layout_constraintStart_toStartOf="parent" />
```

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

MainActivity.java:

```
package com.example.sendemail;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText to,sub,msg;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

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

```
        to = (EditText) findViewById(R.id.to);
```

```
        sub = (EditText) findViewById(R.id.sub);
```

```
msg = (EditText) findViewById(R.id.msg);
```

```
Button send = (Button) findViewById(R.id.button);
```

```
send.setOnClickListener(new View.OnClickListener() {
```

```
    @Override
```

```
        public void onClick(View v) {
```

```
            String Rec = to.getText().toString();
```

```
            String subject = sub.getText().toString();
```

```
            String message = msg.getText().toString();
```

```
            Intent email = new Intent(Intent.ACTION_SEND);
```

```
            email.putExtra(Intent.EXTRA_EMAIL, new String[]{ Rec});
```

```
            email.putExtra(Intent.EXTRA_SUBJECT, subject);
```

```
            email.putExtra(Intent.EXTRA_TEXT, message);
```

```
            email.setType("text/plain");
```

```
            startActivity(Intent.createChooser(email, "Choose an Email client :"));
```

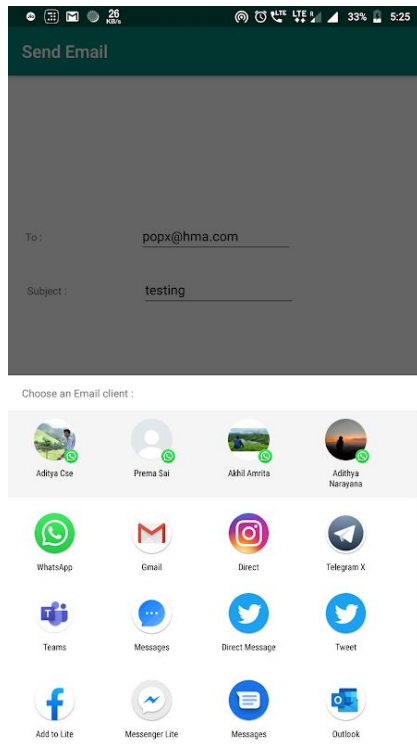
```
        }
```

```
    });
```

```
}
```


1

Output:



5.Send SMS API

Blueprint:



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">

    <EditText

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="268dp"
```

```
android:ems="10"
```

```
android:hint="Enter message"
```

```
android:inputType="textPersonName"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

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

```
<EditText
```

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="175dp"
```

```
android:ems="10"
```

```
android:hint="Enter Phone number"
```

```
android:inputType="textPersonName"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

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

```
<Button
```

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="77dp"
```

```
android:text="Send"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/msg" />
```

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

MainActivity.java:

```
package com.example.smsapi;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import androidx.core.app.ActivityCompat;
```

```
import androidx.core.content.ContextCompat;
```

```
import android.Manifest;
```

```
import android.app.Activity;
```

```
import android.content.Context;
```

```
import android.content.pm.PackageManager;
```

```
import android.os.Bundle;
```

```
import android.telephony.SmsManager;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private static final int MY_PERMISSIONS_REQUEST_SEND_SMS =0 ;
```

```
    Button sendBtn;
```

```
    EditText txtphoneNo;
```

```
    EditText txtMessage;
```

```
    String phoneNo;
```

```
String message;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

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

```
    sendBtn = (Button) findViewById(R.id.button);
```

```
    txtphoneNo = (EditText) findViewById(R.id.phno);
```

```
    txtMessage = (EditText) findViewById(R.id.msg);
```

```
    sendBtn.setOnClickListener(new View.OnClickListener() {
```

```
        @Override
```

```
        public void onClick(View v) {
```

```
            sendSMSMessage();
```

```
        }
```

```
    });
```

```
}
```

```
protected void sendSMSMessage() {
```

```
    phoneNo = txtphoneNo.getText().toString();
```

```
message = txtMessage.getText().toString();
```

```
if (ContextCompat.checkSelfPermission(this, Manifest.permission.SEND_SMS) !=  
PackageManager.PERMISSION_GRANTED) {
```

```
if (ActivityCompat.shouldShowRequestPermissionRationale(this, Manifest.permission.SEND_SMS)) {
```

```
    }  
  
    else {
```

```
        ActivityCompat.requestPermissions(this, new  
String[]{Manifest.permission.SEND_SMS}, MY_PERMISSIONS_REQUEST_SEND_SMS);
```

```
    }  
  
    }  
  
    }  
  
    @Override
```

```
public void onRequestPermissionsResult(int requestCode, String permissions[], int[]  
grantResults) {
```

```
    switch (requestCode) {
```

```
        case MY_PERMISSIONS_REQUEST_SEND_SMS: {
```

```
            if (grantResults.length > 0
```

```
                && grantResults[0] == PackageManager.PERMISSION_GRANTED) {
```

```
SmsManager smsManager = SmsManager.getDefault();
```

```
smsManager.sendTextMessage(phoneNo, null, message, null, null);
```

```
Toast.makeText(getApplicationContext(), "SMS sent.",
```

```
Toast.LENGTH_LONG).show();
```

```
} else {
```

```
Toast.makeText(getApplicationContext(),
```

```
"SMS failed, please try again.", Toast.LENGTH_LONG).show();
```

```
return;
```

```
}
```

```
}
```

```
}
```

```
}
```

```
}
```

AndroidManifest.xml:

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

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

```
package="com.example.smsapi">
```



```
<uses-permission android:name="android.permission.SEND_SMS" />
```

```
<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/AppTheme">
```

```
        <activity android:name=".MainActivity">
```

```
            <intent-filter>
```

```
                <action android:name="android.intent.action.MAIN" />
```

```
                <category android:name="android.intent.category.LAUNCHER" />
```

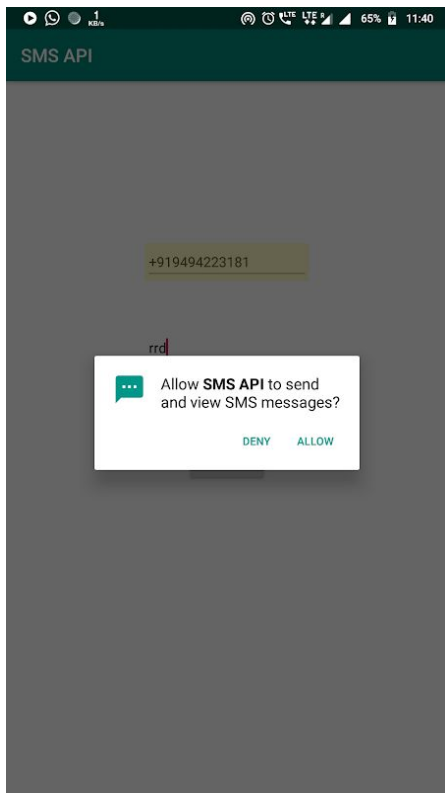
```
            </intent-filter>
```

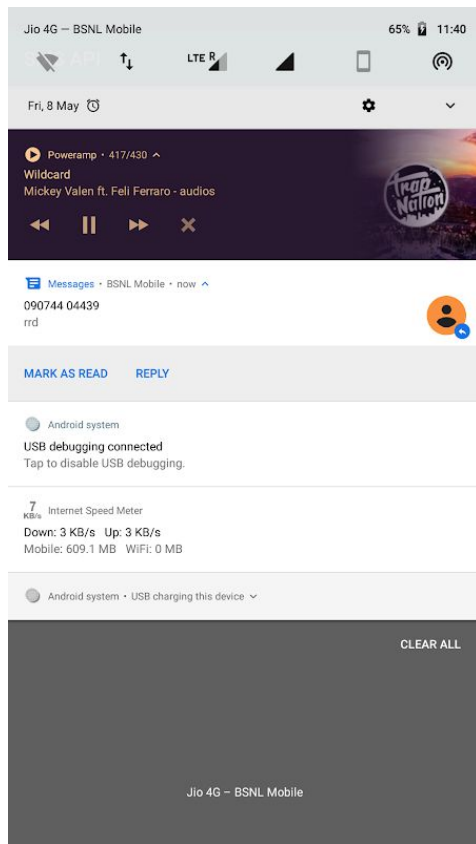
```
        </activity>
```

```
    </application>
```

```
</manifest>
```

Output:





B. intent:

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">
```

```
<EditText
```

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

```
    android:layout_width="wrap_content"
```

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

```
    android:layout_marginTop="268dp"
```

```
    android:ems="10"
```

```
    android:hint="Enter message"
```

```
    android:inputType="textPersonName"
```

```
    app:layout_constraintEnd_toEndOf="parent"
```

```
    app:layout_constraintStart_toStartOf="parent"
```

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

```
<EditText
```

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

```
    android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="175dp"
```

```
android:ems="10"
```

```
android:hint="Enter Phone number"
```

```
android:inputType="textPersonName"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

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

```
<Button
```

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="77dp"
```

```
android:text="Send"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/msg" />
```

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

MainActivity.java:

```
package com.example.smsusingintent;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.util.Log;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText phoneNumber,txtMessage;

    Button send;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);
```

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

```
phoneNumber = (EditText) findViewById(R.id.phno);
```

```
txtMessage = (EditText) findViewById(R.id.msg);
```

```
send = (Button) findViewById(R.id.button);
```

```
send.setOnClickListener(new View.OnClickListener() {
```

```
    @Override
```

```
        public void onClick(View v) {
```

```
            sendSMS();
```

```
        }
```

```
    });
```

```
}
```

```
protected void sendSMS() {
```

```
    Log.i("Send SMS", "");
```

```
    Intent Msg = new Intent(Intent.ACTION_SEND);
```

```
    Msg.setData(Uri.parse("smsto:"));
```

```
    Msg.setType("vnd.android-dir/mms-sms");
```

```
    Msg.putExtra("address", new String(phoneNumber.getText().toString()));
```

```
Msg.putExtra("sms_body",txtMessage.getText());
```

```
try {
```

```
startActivity(Msg);
```

```
finish();
```

```
Log.i("Finished sending SMS...", "");
```

```
} catch (android.content.ActivityNotFoundException ex) {
```

```
    Toast.makeText(MainActivity.this,"SMS failed, please try again later.",  
        Toast.LENGTH_SHORT).show();
```

```
}
```

```
}
```

```
}
```

AndroidManifest.xml:

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

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

```
    package="com.example.smsusingintent">
```

```
    <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/AppTheme">
```

```
        <activity android:name=".MainActivity">
```

```
            <intent-filter>
```

```
                <action android:name="android.intent.action.MAIN" />
```

```
                <category android:name="android.intent.category.LAUNCHER" />
```

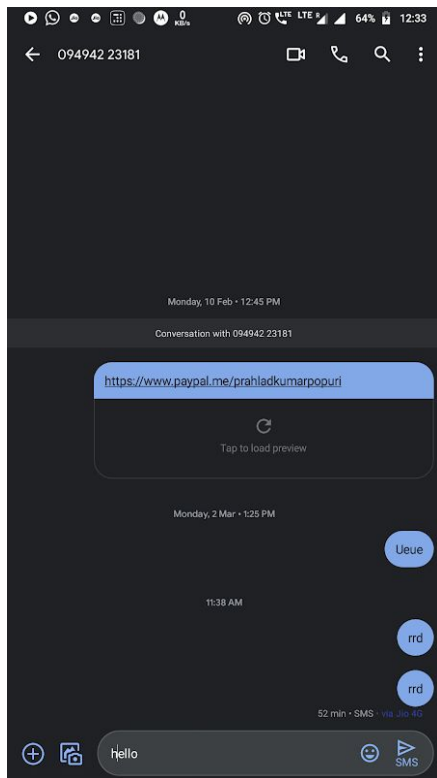
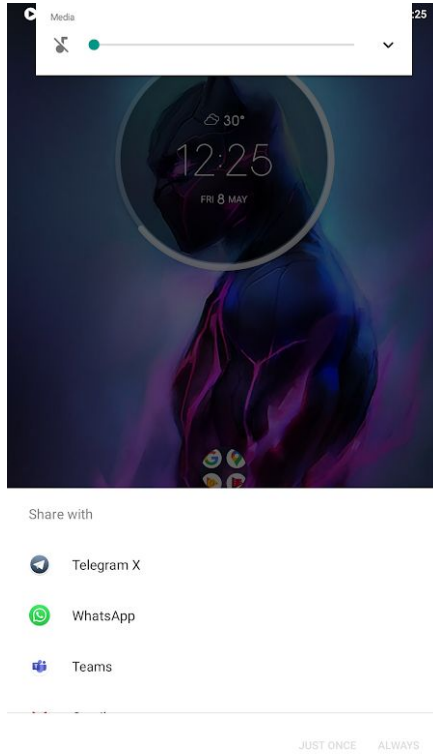
```
            </intent-filter>
```

```
        </activity>
```

```
    </application>
```

```
</manifest>
```

Output:



6 Phone call

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">

    <EditText

        android:id="@+id/ph"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="223dp"

        android:ems="10"

        android:hint="Phone no."

        android:inputType="textPersonName"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

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

```
<Button
```

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

```
android:layout_width="wrap_content"
```

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

```
android:layout_marginTop="70dp"
```

```
android:text="call"
```

```
app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toBottomOf="@+id/ph" />
```

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

MainActivity.java:

```
package com.example.callintent;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import androidx.core.app.ActivityCompat;
```

```
import android.Manifest;
```

```
import android.content.Intent;
```

```
import android.content.pm.PackageManager;
```

```
import android.net.Uri;
```

```
import android.os.Build;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import java.net.URI;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private EditText txtPhone;
```

```
    private Button btn;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

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

```
txtPhone = (EditText) findViewById(R.id.ph);
```

```
btn = (Button) findViewById(R.id.button);
```

```
btn.setOnClickListener(new View.OnClickListener() {
```

```
    @Override
```

```
        public void onClick(View v) {
```

```
            callPhoneNumber();
```

```
        }
```

```
    });
```

```
}
```

```
    @Override
```

```
    public void onRequestPermissionsResult(int requestCode, String[] permissions, int[]  
        grantResults) {
```

```
        if(requestCode==101){
```

```
            if(grantResults[0]==PackageManager.PERMISSION_GRANTED){
```

```
                callPhoneNumber();
```

```
            }
```

```
        }
```

```
    }
```

```
public void callPhoneNumber() {
```

```
    try{
```

```
        if(Build.VERSION.SDK_INT>22){
```

```
            if(ActivityCompat.checkSelfPermission(this,Manifest.permission.CALL_PHONE)!=PackageManager.PERMISSION_GRANTED){
```

```
                ActivityCompat.requestPermissions(MainActivity.this,new  
String[]{Manifest.permission.CALL_PHONE},101);
```

```
                return;
```

```
                Intent call = new Intent(Intent.ACTION_CALL);
```

```
                call.setData(Uri.parse("tel:"+txtPhone.getText().toString()));
```

```
                startActivity(call);
```

```
            catch (Exception e){
```

```
                e.printStackTrace();
```

```
    }
```

```
}
```

AndroidManifest.xml:

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

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

    package="com.example.callintent">

    <uses-permission android:name="android.permission.CALL_PHONE" />

    <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/AppTheme">

        <activity android:name=".MainActivity">

            <intent-filter>

                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

    </application>

</manifest>
```



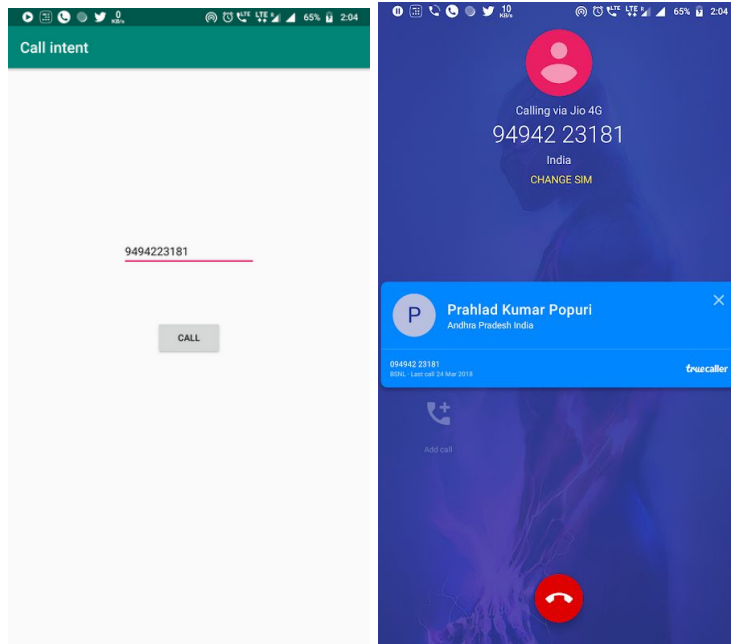
```
</intent-filter>
```

```
</activity>
```

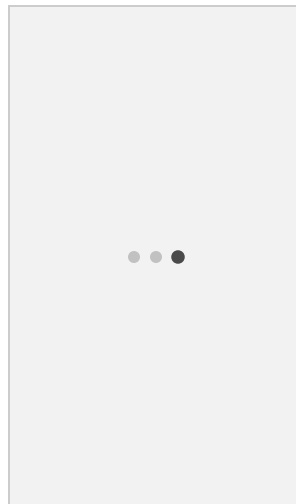
```
</application>
```

```
</manifest>
```

Output:



7. **BLUE Print:**



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">
    <TextView
        android:id="@+id/name"
        android:layout_width="147dp"
        android:layout_height="41dp"
        android:layout_marginTop="33dp"
        android:text="Contact Book"
        android:textSize="24sp"
```

```

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <ImageButton
        android:id="@+id/imageButton2"
        android:layout_width="62dp"
        android:layout_height="62dp"
        android:layout_marginEnd="16dp"
        android:layout_marginRight="16dp"
        android:layout_marginBottom="16dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/listview"
        tools:srcCompat="@drawable/add" />
    <ListView
        android:id="@+id/listview"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="1dp"
        android:layout_marginLeft="1dp"
        android:layout_marginTop="75dp"
        android:layout_marginEnd="1dp"
        android:layout_marginRight="1dp"
        android:layout_marginBottom="1dp"
        app:layout_constraintBottom_toTopOf="@+id/imageButton2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Add_contact.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">
    <ImageView
        android:id="@+id/imageView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="31dp"
        android:layout_marginLeft="31dp"
        android:layout_marginTop="42dp"
        android:layout_marginEnd="50dp"
        android:layout_marginRight="50dp"
        android:layout_marginBottom="139dp"
        app:layout_constraintBottom_toTopOf="@+id/textView2"
        app:layout_constraintEnd_toStartOf="@+id/radioGroup"
        app:layout_constraintStart_toStartOf="parent"

```

```

        app:layout_constraintTop_toTopOf="parent"
        tools:srcCompat="@drawable/male" />
    <RadioGroup
        android:id="@+id/radioGroup"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginTop="55dp"
        android:layout_marginEnd="91dp"
        android:layout_marginRight="91dp"
        android:layout_marginBottom="86dp"
        app:layout_constraintBottom_toTopOf="@+id/name"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/imageView"
        app:layout_constraintTop_toTopOf="parent">
        <RadioButton
            android:id="@+id/male"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Male"
            android:focusedByDefault="true"/>
        <RadioButton
            android:id="@+id/female"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Female" />
    </RadioGroup>
    <TextView
        android:id="@+id/idname"
        android:layout_width="0dp"
        android:layout_height="32dp"
        android:layout_marginStart="56dp"
        android:layout_marginLeft="56dp"
        android:layout_marginEnd="51dp"
        android:layout_marginRight="51dp"
        android:layout_marginBottom="471dp"
        android:text="Name"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="@+id/imageView"
        app:layout_constraintEnd_toStartOf="@+id/name"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView"
        app:layout_constraintVertical_bias="1.0" />
    <EditText
        android:id="@+id/name"
        android:layout_width="167dp"
        android:layout_height="37dp"
        android:layout_marginEnd="47dp"
        android:layout_marginRight="47dp"
        android:layout_marginBottom="470dp"
        android:ems="10"

```

```

        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/idname"
        app:layout_constraintTop_toBottomOf="@+id/radioGroup" />
    <TextView
        android:id="@+id/textView2"
        android:layout_width="97dp"
        android:layout_height="32dp"
        android:layout_marginStart="2dp"
        android:layout_marginLeft="2dp"
        android:layout_marginBottom="421dp"
        android:text="Phone"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="@+id/idname"
        app:layout_constraintTop_toBottomOf="@+id/imageView" />
    <EditText
        android:id="@+id/ph"
        android:layout_width="152dp"
        android:layout_height="36dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/email"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.442"
        app:layout_constraintStart_toEndOf="@+id/textView2"
        app:layout_constraintTop_toBottomOf="@+id/name" />
    <TextView
        android:id="@+id/textView3"
        android:layout_width="0dp"
        android:layout_height="34dp"
        android:layout_marginStart="56dp"
        android:layout_marginLeft="56dp"
        android:layout_marginEnd="49dp"
        android:layout_marginRight="49dp"
        android:text="email"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/email"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2"
        app:layout_constraintVertical_bias="0.043" />
    <EditText
        android:id="@+id/email"
        android:layout_width="161dp"
        android:layout_height="42dp"
        android:layout_marginTop="28dp"
        android:layout_marginEnd="47dp"
        android:layout_marginRight="47dp"
        android:ems="10"
        android:inputType="textPersonName"

```

```

        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/textView3"
        app:layout_constraintTop_toBottomOf="@+id/ph" />
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="220dp"
        android:text="ADD CONTACT"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_secondactivity.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:orientation="vertical">
    <TextView
        android:id="@+id/email"
        android:layout_width="154dp"
        android:layout_height="32dp"
        android:layout_marginTop="28dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/phone" />
    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="214dp"
        android:layout_height="235dp"
        android:layout_marginStart="96dp"
        android:layout_marginLeft="96dp"
        android:layout_marginTop="84dp"
        android:layout_marginBottom="78dp"
        app:layout_constraintBottom_toTopOf="@+id/name"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:srcCompat="@drawable/male" />
    <TextView
        android:id="@+id/name"
        android:layout_width="154dp"
        android:layout_height="32dp"
        android:layout_marginBottom="403dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"

```

```

        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView2" />
    <TextView
        android:id="@+id/phone"
        android:layout_width="154dp"
        android:layout_height="32dp"
        android:layout_marginTop="32dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/name" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Menu_main.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<menu 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"
    tools:context="example.javatpoint.com.optionmenu.MainActivity">
    <item android:id="@+id/item1"
        android:title="delete"/>
    <item android:id="@+id/item2"
        android:title="starred"/>
</menu>

```

Main_Activity.java:

```

package com.example.contact;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ImageButton;
import android.widget.ListView;
import java.io.Serializable;
import java.util.ArrayList;
public class MainActivity extends AppCompatActivity {
    ListView simpleList;
    static ArrayList<Item> person = new ArrayList<>();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        simpleList = (ListView) findViewById(R.id.listview);
        // person.add(new
Item("prahlad","prahladkumar2222@gmail.com","9494223181",R.drawable.male));
        // person.add(new
Item("Jhansi","pyk.pop@gmail.com","9494223181",R.drawable.female));
        // person.add(new
Item("Akhil","p.akhilgupta121@gmail.com","9494223181",R.drawable.male));

```

```

        MyAdapter myAdapter = new
MyAdapter(this, android.R.layout.simple_list_item_1, person);
        simpleList.setAdapter(myAdapter);
        simpleList.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int position,
long id) {
                Intent intent = new
Intent(getApplicationContext(), secondactivity.class);
                intent.putExtra("description", person.get(position).getName());
                startActivity(intent);
            }
        });
        ImageButton imageButton = findViewById(R.id.imageButton2);
        imageButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i = new Intent(getApplicationContext(), Data.class);
                startActivity(i);
            }
        });
        Intent intent = getIntent();
        String name = intent.getStringExtra("f_name");
        String email = intent.getStringExtra("email");
        String gen = intent.getStringExtra("gender");
        String phone = intent.getStringExtra("phone");
        simpleList = (ListView) findViewById(R.id.listview);
        if (name != null) {
            if (gen.equals("male"))
                person.add(new Item(name, phone, email, R.drawable.male));
            else if (gen.equals("female"))
                person.add(new Item(name, phone, email, R.drawable.female));
        }
    }

    public static ArrayList<Item> getList() {
        return person;
    }
}

```

Second activity.java:

```

package com.example.contact;
import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.widget.ImageView;
import android.widget.TextView;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import java.util.ArrayList;

```



```

import java.util.zip.Inflater;
public class secondactivity extends AppCompatActivity {
    int a[] = {R.id.male,R.id.female};
    static ArrayList<Item> cust= MainActivity.getList();
    TextView fir,ph,email;
    ImageView image;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_secondactivity);
        fir = findViewById(R.id.name);
        ph = findViewById(R.id.phone);
        email = findViewById(R.id.email);
        image = findViewById(R.id.imageView2);
        Intent intent = getIntent();
        String name=intent.getStringExtra("description");
        for (int i= 0;i<cust.size();i++){
            if(cust.get(i).getName().equals(name)){
                fir.setText(cust.get(i).getName());
                ph.setText(cust.get(i).getPhno());
                email.setText(cust.get(i).getEmail());
                image.setImageResource(cust.get(i).getImage());
            }
        }
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater = getMenuInflater();
        inflater.inflate(R.menu.menu_main,menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        return super.onOptionsItemSelected(item);
    }
}

```

Data.java:

```

package com.example.contact;
import android.app.Activity;
import android.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import java.util.ArrayList;
public class Data extends Activity {

```

```

    EditText editName,editEmail,editNumber;
    ImageView contactImage;
    Button save;
    private int mGetImage;
    RadioButton male,female;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.add_contact);
        final ArrayList<Item> cust = MainActivity.getList();
        editName= (EditText) findViewById(R.id.name);
        editEmail= (EditText) findViewById(R.id.email);
        editNumber= (EditText) findViewById(R.id.ph);
        contactImage= (ImageView) findViewById(R.id.imageView);
        contactImage.setImageResource(R.drawable.male);
        Intent intent = getIntent();
        save= (Button) findViewById(R.id.button);
        save.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                male = (RadioButton) findViewById(R.id.male);
                female = (RadioButton) findViewById(R.id.female);
                int arr[] = {R.drawable.male,R.drawable.female};
                int i=0;
                if(male.isChecked()){
                    contactImage.setImageResource(R.drawable.male);
                    i=0;
                }
                else{
                    contactImage.setImageResource(R.drawable.male);
                    i=1;
                }
            }
        });
        cust.add(new
Item(editName.getText().toString(),editEmail.getText().toString(),editNumber.getText().toString(),arr[i]));
        Intent intent5=new Intent(Data.this,MainActivity.class);
        startActivity(intent5);
        finish();
    }
}

@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    mGetImage =data.getExtras().getInt("img",1);
    contactImage.setImageResource(mGetImage);
}
}

```

MyAdpater.java:

```

package com.example.contact;
import android.content.Context;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.ImageView;
import android.widget.TextView;
import java.util.ArrayList;

public class MyAdapter extends ArrayAdapter<Item> {
    ArrayList<Item> person = new ArrayList<>();
    TextView name,email,phone;

    public MyAdapter(Context context, int textViewResourceId, ArrayList<Item> objects){
        super(context, textViewResourceId,objects);
        person = objects;
    }

    @Override
    public int getCount(){
        return super.getCount();
    }

    @Override
    public View getView(int position, View convertView, ViewGroup parent){
        View v = convertView;
        LayoutInflater inflater = (LayoutInflater)
getContext().getSystemService(Context.LAYOUT_INFLATER_SERVICE);
        v = inflater.inflate(R.layout.list_view_items, null);
        name = (TextView) v.findViewById(R.id.name);
        name.setText(person.get(position).getName());
        // email = (TextView) v.findViewById(R.id.email);
        // email.setText(person.get(position).getEmail());
        phone = (TextView) v.findViewById(R.id.ph);
        phone.setText(person.get(position).getPhno());
        ImageView imageView = (ImageView) v.findViewById(R.id.image);
        imageView.setImageResource(person.get(position).getImage());
        return v;
    }
}

```

Item.java:

```

package com.example.contact;
import java.io.Serializable;
public class Item implements Serializable {
    String name, ph,email;
    int img;

    public Item(String first,String email,String phno,int image){
        this.email=email;
        this.name= first;
        this.ph=phno;
        this.img=image;
    }

    public String getEmail()

```

```

    {
        return email;
    }

    public void setEmail(String email) {
        this.email = email;
    }

    public int getImage()
    {
        return img;
    }

    public String getName()
    {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getPhno()
    {
        return ph;
    }

    public void setNumber(String number) {
        this.ph = number;
    }

    public void setImageId(int imageId) {
        this.img = imageId;
    }
}

```

OUTPUT:

