

Lab 9

Working with Phone call and SMS

1. Android Phone Calls

Activity_Call.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="match_parent"
    android:layout_height="match_parent">
    <TextView
        android:id="@+id/fstTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="150dp"
        android:text="Mobile No"
    />
    <EditText
        android:id="@+id/mbtTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:ems="10">
    </EditText>
    <Button
        android:id="@+id/btnCall"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:text="Call" />
</LinearLayout>
```

CallActivity.java

```
package com.example.practical10;
import androidx.annotation.NonNull;
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 android.widget.Toast;

public class CallActivity extends AppCompatActivity {

    private Button callbtn;
    private EditText text;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
```

```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_call);

callbtn = findViewById(R.id.btnCall);
text = findViewById(R.id.mblTxt);

callbtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        makeCall();
    }
});
}
@Override
public void onRequestPermissionsResult(int requestCode, @NonNull String[] permissions, @NonNull int[]
grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions, grantResults);
    if(requestCode == 101 && grantResults[0] == PackageManager.PERMISSION_GRANTED){
        makeCall();
    }
}

private void makeCall(){
    try{
        if(ActivityCompat.checkSelfPermission(this, Manifest.permission.CALL_PHONE) !=
PackageManager.PERMISSION_GRANTED){
            ActivityCompat.requestPermissions(this, new String[]{Manifest.permission.CALL_PHONE}, 101);
        }

        Intent intent = new Intent(Intent.ACTION_CALL);
        intent.setData(Uri.parse("tel:" + text.getText().toString()));
        startActivity(intent);
    }catch (Exception e){
        Toast.makeText(this, ""+e.getMessage(), Toast.LENGTH_SHORT).show();
    }
}
}

```

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">

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

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.App1"
        tools:targetApi="31">
        <activity
            android:name=".CallActivity"
            android:exported="true">
            <intent-filter>

```

```

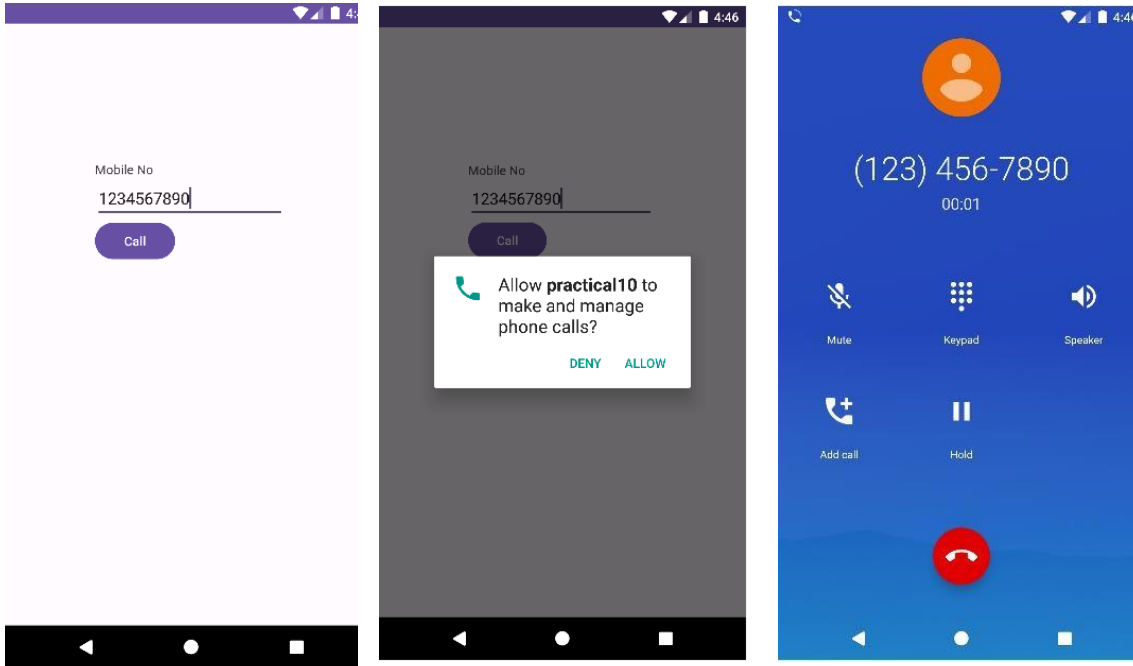
<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>

</manifest>

```

OutPut:



2. Android Send SMS

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">
    <uses-permission android:name="android.permission.SEND_SMS"/>
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Practical8"
        tools:targetApi="31">
        <activity
            android:name=".SmsActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>

```

activity_sms.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="match_parent"
    android:layout_height="match_parent">
    <TextView
        android:id="@+id/fstTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="150dp"
        android:text="Mobile No" />
    <EditText
        android:id="@+id/mbtTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:ems="10"/>
    <TextView
        android:id="@+id/secTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Message"
        android:layout_marginLeft="100dp" />
    <EditText
        android:id="@+id/msgTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:ems="10" />
    <Button
        android:id="@+id/btnSMSSend"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:text="Send SMS" />
</LinearLayout>
```

SecondActivity.java

```
package com.example.apk1;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
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 SmsActivity extends AppCompatActivity {
    private EditText phonetxt, msgtxt;
    private Button btnSendSms;
```

```

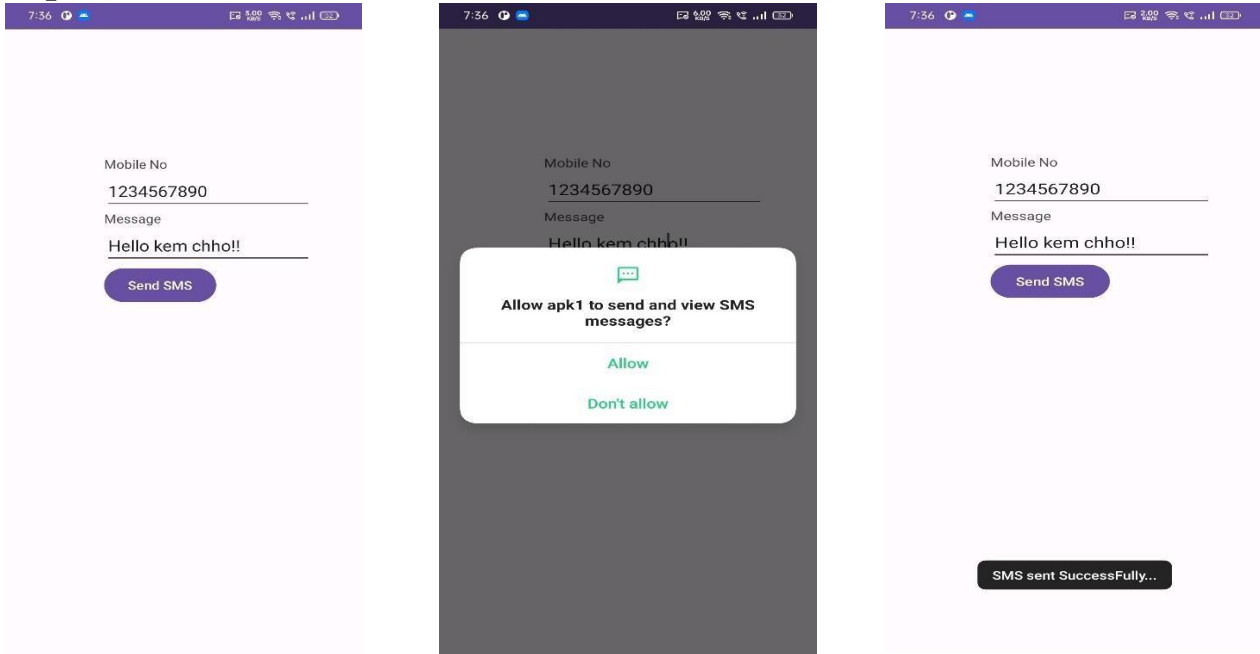
private String phoneNo, message;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_sms);

    phonetxt = findViewById(R.id.mblTxt);
    msgtxt = findViewById(R.id.msgTxt);
    btnSendSms = findViewById(R.id.btnSMSSend);

    btnSendSms.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            sendSMS();
        }
    });
}
private void sendSMS(){
    phoneNo = phonetxt.getText().toString();
    message = msgtxt.getText().toString();

    if (ContextCompat.checkSelfPermission(this,
        android.Manifest.permission.SEND_SMS)
        != PackageManager.PERMISSION_GRANTED) {
        if (ActivityCompat.shouldShowRequestPermissionRationale(this,
            android.Manifest.permission.SEND_SMS)) {
        } else {
            ActivityCompat.requestPermissions(this,
                new String[]{android.Manifest.permission.SEND_SMS},
                101);
        }
    }
}
@Override
public void onRequestPermissionsResult(int requestCode, @NonNull String[] permissions, @NonNull int[]
grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions, grantResults);
    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 Successfully...",
            Toast.LENGTH_LONG).show();
    }
}
}

```

Output:**3. Android Send Email****+ activity_email.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="20dp"
    android:paddingRight="20dp"
    android:orientation="vertical" >
    <EditText
        android:id="@+id/txtTo"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="To"/>
    <EditText
        android:id="@+id/txtSub"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Subject"/>
    <EditText
        android:id="@+id/txtMsg"
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="1"
        android:gravity="top"
        android:hint="Message"/>
    <Button
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:layout_gravity="right"
        android:text="Send"
        android:id="@+id/btnSend"/>
</LinearLayout>

```

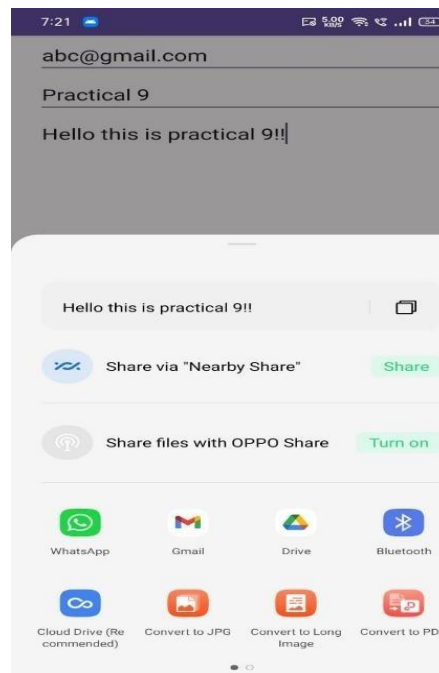
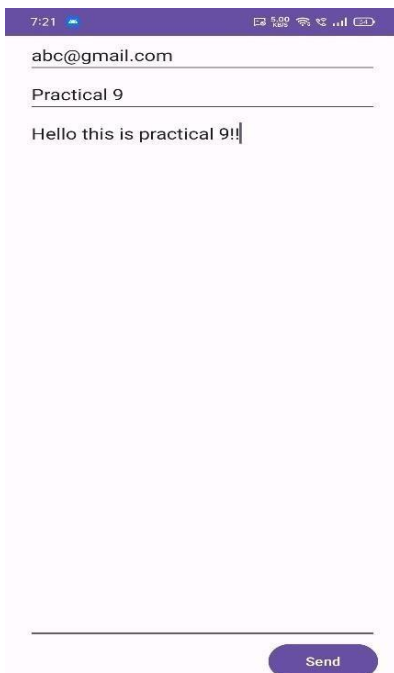
EmailActivity.java

```
package com.example.practical10;
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 EmailActivity extends AppCompatActivity {
    private EditText totxt, subjecttxt, msgtxt;
    private Button btnMail;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_email);
        totxt = findViewById(R.id.txtTo);
        subjecttxt = findViewById(R.id.txtSub);
        msgtxt = findViewById(R.id.txtMsg);
        btnMail = findViewById(R.id.btnSend);
        btnMail.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(Intent.ACTION_SEND);
                intent.putExtra(Intent.EXTRA_EMAIL, new String[]{totxt.getText().toString()});
                intent.putExtra(Intent.EXTRA_SUBJECT, subjecttxt.getText().toString());
                intent.putExtra(Intent.EXTRA_TEXT, msgtxt.getText().toString());
                intent.setType("message/rfc822");
                startActivity(Intent.createChooser(intent, "Choose Any Mail Box"));
            }
        });
    }
}
```

Output:



10:56 PM 0.5KB/s



← Compose   

From valakijay55@gmail.com ▼

To  abc@gmail.com ▼

Practical 9

Hello this is practical 9!!