Ex. No. : 8a **Date: 05.03.2025**

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Send SMS

Aim

Develop an application to Send SMS.

Procedure:

Step 1 : File -> NewProject

Provide the application name and Click “Next”

Step 2 : Select the target android devices

Select the minimum SDK to run the application. Click “Next”. **Step 3 :** Choose the activity for the application (By default choose “Blank Activity). Click “Next”.

Step 4 : Enter activity name and click "Finish".

Step 5 : Edit the program.

Step 6 : Run the application, 2-ways to run the application.

1. Running through emulator
2. Running through mobile device

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
 package="com.example.ex8a">

 <!-- Permissions -->
 <uses-feature
 android:name="android.hardware.telephony"
 android:required="false" />

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

 <application
 android:allowBackup="true"
 android:label="Send SMS App"
 android:roundIcon="@mipmap/ic_launcher_round"
 android:supportsRtl="true"
 android:theme="@style/Theme.Ex8a">
 <activity android:name=".MainActivity"
 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_main.xml

```
<?xml version="1.0"

encoding="utf-8"?>

<LinearLayout


xmlns:android="http://sche

mas.android.com/apk/res/android"
```

```
android:orientation="vertical"
android:padding="24dp"
android:layout_width="mach_parent"
android:layout_height="match_parent">

 <EditText
android:id="@+id/etPhoneNumber"
android:hint="Phone Number"
android:inputType="phone"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:minHeight="48dp"

android:padding="12dp"/>
<EditText
android:id="@+id/etMessage"
android:hint="EnterMessage"

android:inputType="textMultiLine"
android:layout_width="match_parent"

android:layout_height="wrap_content"
 android:minLines="3"
 android:gravity="top"/>
<Button
 android:id="@+id/btnSend"
 android:text="Send SMS"

android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginTop="24dp"/>
</LinearLayout>
```


.

MainActivity.kt

```
package
com.example.ex8a

import android.Manifest
import  android.content.pm.PackageManager
import android.os.Bundle
import android.telephony.SmsManager
import android.widget.Button
import android.widget.EditText
import android.widget.Toast
import androidx.appcompat.app.
AppCompatActivity
import androidx.core.app.ActivityCompat
import androidx.core.content.ContextCompat
class MainActivity :
AppCompatActivity() {
 private lateinit varetPhoneNumber: EditText
 private lateinit varetMessage: EditText
 private lateinit varbtnSend: Button
 private val
 SMS_PERMISSION_CODE = 100
 override fun onCreate(savedInstance
 State: Bundle?) {
```

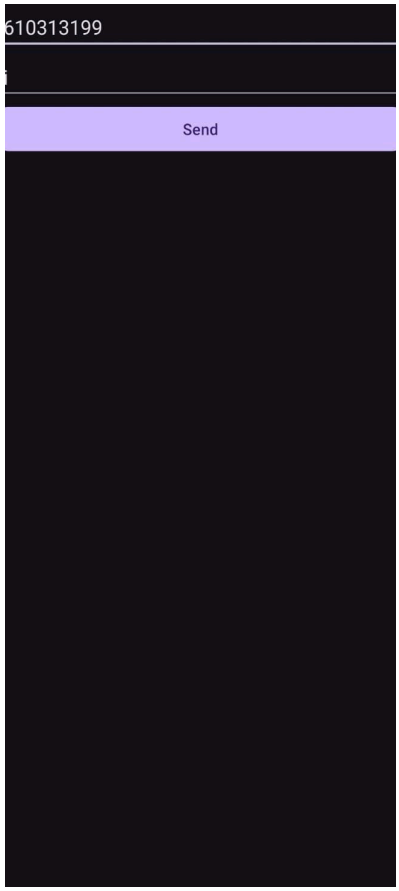
```
 super.onCreate(savedIns
tanceState)

 setContentView(R.layout
.activity_main)

  etPhoneNumber =
findViewById(R.id.etPho
neNumber)
  etMessage =
findViewById(R.id.etMes
sage)
  btnSend =  findViewById(R.id.btnSend)


btnSend.setOnClickListener {
  sendSMS()
 }
 }

  private fun sendSMS()
{
  val phoneNumber =
etPhoneNumber.text.toSt
ring().trim()
  val message = etMessage.text.toString() .trim()

  if (phoneNumber.isEmpty()
  || message.isEmpty()) {
```

```
Toast.makeText(this,
"Please enter phone
number and message",
Toast.LENGTH_SHORT
).show()
 return
 }

 if  (ContextCompat.checkSe
lfPermission(this, Manifest.permission.SEND_SMS) !=
PackageManager.PERM
ISSION_GRANTED) {
 // Request
permission

ActivityCompat.requestPermissions(this,

arrayOf(Manifest.permission.SEND_SMS),

SMS_PERMISSION_CODE)
 } else {
 // Permission
granted
 try {
 val
smsManager:
SmsManager =
SmsManager.getDefault( )
```

```
smsManager.sendTextMessage(phoneNumber,null, message, null, null)

Toast.makeText(this,
"SMS Sent!",
Toast.LENGTH_SHORT
).show()
etPhoneNumber.text.clea r()
etMessage.text.clear()
 } catch (e:Exception) {

Toast.makeText(this,
"Sending Failed:
${e.message}",
Toast.LENGTH_LONG).
show()

e.printStackTrace()
 }
 }
 }

 override fun onRequestPermissionsResult(requestCode: Int, permissions:
Array<String>,
grantResults: IntArray) {
super.onRequestPermiss
ionsResult(requestCode,
permissions,grantResults)
 if (requestCode == SMS_PERMISSION_CODE) {
 if  (grantResults.isNotEmpt y() && grantResults[0]==
PackageManager.PERMISSION_GRANTED) {
```

```
 sendSMS()
 } else {

Toast.makeText(this,
"Permission Denied",
Toast.LENGTH_SHORT
).show()
 }
 }
 }
}
```

***Output** :*



Result:

The Application was developed using Kotlin in Android Studio.