Ex. No. : 8a **Date:04/05/25**

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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"?>
<manifestxmlns: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:supportsRtl="true"
android:theme="@style/Theme.Exp8"
tools:targetApi="31">
<activity
android:name=".MainActivity"
android:exported="true"
android:theme="@style/Theme.Exp8">
<intent-filter>
<action android:name="android.intent.action.MAIN" />

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

</manifest>
```

Activity_main.xml

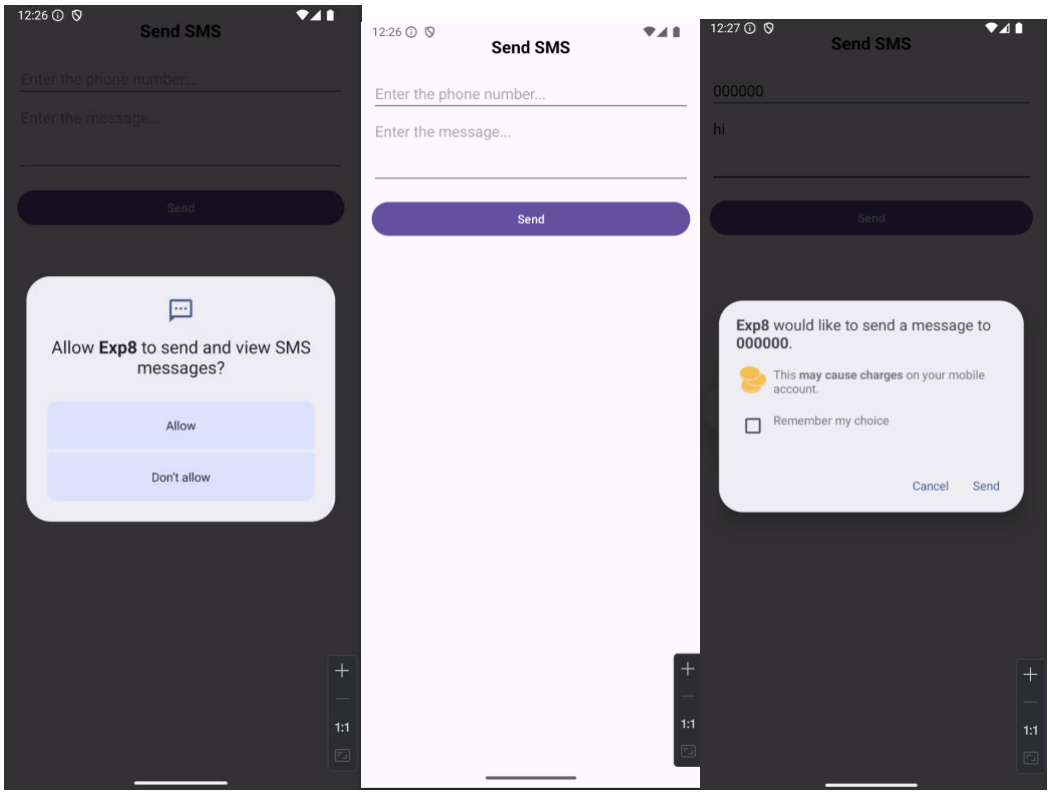
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:orientation="vertical"
   android:padding="16dp">

   <TextView
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Send SMS"
      android:textSize="20sp"
      android:textStyle="bold"
      android:textColor="@android:color/black"
      android:layout_gravity="center_horizontal"
      android:paddingBottom="20dp" />

   <EditText
      android:id="@+id/editPhone"
      android:hint="Enter the phone number..."
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:inputType="phone"/>

   <EditText
      android:id="@+id/editMessage"
      android:hint="Enter the message..."
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:inputType="textMultiLine"
      android:lines="3"
      android:gravity="top"/>

   <Button
      android:id="@+id/btnSend"
      android:text="Send"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:layout_marginTop="16dp"/>
</LinearLayout>
```

MainActivity.kt

```
package com.example.exp8

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 var editPhone: EditText
    private lateinit var editMessage: EditText
    private lateinit var btnSend: Button

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        editPhone = findViewById(R.id.editPhone)
        editMessage = findViewById(R.id.editMessage)
        btnSend = findViewById(R.id.btnSend)

        btnSend.setOnClickListener {
            sendSMS()
        }

        // Ask SMS permission at runtime
        if (ContextCompat.checkSelfPermission(this, Manifest.permission.SEND_SMS)
            != PackageManager.PERMISSION_GRANTED) {
            ActivityCompat.requestPermissions(this, arrayOf(Manifest.permission.SEND_SMS), 100)
        }
    }
```

```
    private fun sendSMS() {
        val phoneNumber = editPhone.text.toString()
        val message = editMessage.text.toString()

        if (phoneNumber.isNotEmpty() && message.isNotEmpty()) {
            try {
                val smsManager = SmsManager.getDefault()
                smsManager.sendTextMessage(phoneNumber, null, message, null, null)
                Toast.makeText(this, "Message Sent", Toast.LENGTH_SHORT).show()
            } catch (e: Exception) {
                Toast.makeText(this, "Failed to send SMS: ${e.message}", Toast.LENGTH_LONG).show()
            }
        } else {
            Toast.makeText(this, "Please enter phone number and message", Toast.LENGTH_SHORT).show()
        }
    }
}
```

Output



Result:

The experiment has been executed successfully