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

xmlns:android="http://sche
mas.android.com/apk/res/a
ndroid"
android:orientation="vertic
al"
android:padding="24dp"
```

```xml
android:layout_width="mat
ch_parent"

android:layout_height="ma
tch_parent">

    <EditText

android:id="@+id/etPhone
Number"
        android:hint="Phone
Number"

android:inputType="phone
"
android:layout_width="mat
ch_parent"

android:layout_height="wr
ap_content"

android:minHeight="48dp"

android:padding="12dp"/>


    <EditText
android:id="@+id/etMessag
e"
android:hint="Enter
Message"
```

```xml
    android:inputType="textM
ultiLine"

    android:layout_width="mat
ch_parent"

    android:layout_height="wr
ap_content"
    android:minLines="3"

    android:gravity="top"/>

    <Button

    android:id="@+id/btnSend"
    android:text="Send
SMS"

    android:layout_width="mat
ch_parent"

    android:layout_height="wr
ap_content"

    android:layout_marginTop
="24dp"/>
</LinearLayout>
```

MainActivity.kt

```kotlin
package
com.example.ex8a
```

```kotlin
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 etPhoneNumber: EditText
    private lateinit var etMessage: EditText
```

```kotlin
private lateinit var
btnSend: Button

    private val
SMS_PERMISSION_CO
DE = 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.btnSe
nd)


btnSend.setOnClickListe
ner {        sendSMS()
```

```kotlin
            }
        }

    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.SE
ND_SMS)
        !=
PackageManager.PERM
ISSION_GRANTED) {
```

```kotlin
            // Request
permission

ActivityCompat.requestP
ermissions(this,

arrayOf(Manifest.permis
sion.SEND_SMS),

SMS_PERMISSION_CO
DE)
        } else {
// Permission
granted
            try {
val
smsManager:
SmsManager =
SmsManager.getDefault(
)
smsManager.sendTextM
essage(phoneNumber,
null, message, null, null)

Toast.makeText(this,
"SMS Sent!",
Toast.LENGTH_SHORT
).show()

etPhoneNumber.text.clea
```

```kotlin
r()

etMessage.text.clear()
        } catch (e:
Exception) {

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

e.printStackTrace()
        }
    }
  }

  override fun
onRequestPermissionsRe    sult(requestCode:    Int,    permissions:    Array<String>,
grantResults: IntArray) {

super.onRequestPermiss
ionsResult(requestCode,
permissions,
grantResults)       if
(requestCode ==
SMS_PERMISSION_CO
DE) {
      if
```
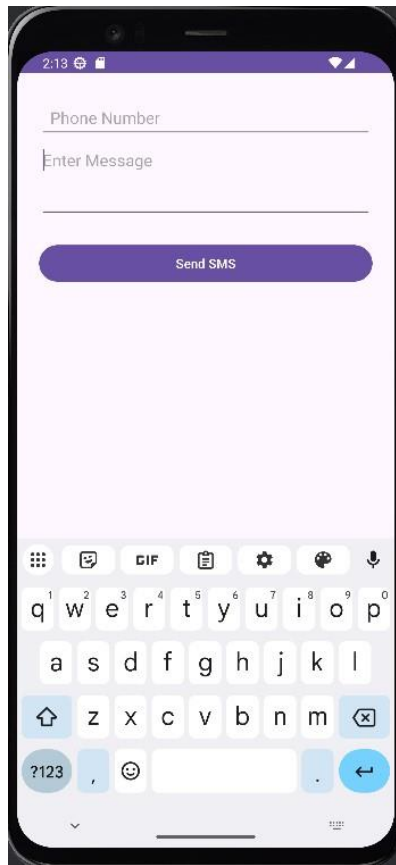
```
(grantResults.isNotEmpt
y() && grantResults[0]
==
PackageManager.PERM
ISSION_GRANTED) {
        sendSMS()
    } else {

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

Output :

Result:

The Application was developed using Kotlin in Android Studio.