

Ex. No. : 08-A

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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

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.sms">

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

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

    <application
        android:allowBackup="true"
        android:label="SMS Email App"
        android:icon="@mipmap/ic_launcher"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.SMS">

        <activity android:name=".SendEmailActivity" />
        <activity android:name=".SendSMSActivity" />
        <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>

        <receiver android:name=".ReceiveSMSBroadcastReceiver"
            android:exported="true">
            <intent-filter>
                <action
                    android:name="android.provider.Telephony.SMS_RECEIVED" />
            </intent-filter>
        </receiver>
    </application>
</manifest>
```

MainActivity.kt

```
package
com.example.sms

import
android.content.Intent
import
android.os.Bundle
import
android.widget.Button
import
androidx.appcompat.app.
AppCompatActivity

class MainActivity :
AppCompatActivity() {
    override fun
onCreate(savedInstanceState
State: Bundle?) {

    super.onCreate(savedIns
tanceState)

    setContentView(R.layout
.activitymain)

    val smsButton =
findViewById<Button>(
R.id.btnSms)
    val emailButton =
```

```
findViewById<Button>(  
R.id.btnEmail)
```

```
smsButton.setOnClickListener(  
    new OnClickListener {
```

```
        startActivity(Intent(this,  
            SendSMSActivity::class.j  
            ava))  
    }
```

```
emailButton.setOnClickListener(  
    new OnClickListener {
```

```
        startActivity(Intent(this,  
            SendEmailActivity::class  
            .java))  
    }  
}
```

sendEmailActivivty.kt

```
package com.example.sms
```

```
import android.Manifest  
import  
android.content.pm.Packag  
eManager
```

```

import android.os.Bundle
import
android.telephony.SmsMan
ager
import
android.widget.Button
import
android.widget.EditText
import
android.widget.Toast
import
androidx.appcompat.app.A
ppCompatActivity
import
androidx.core.app.Activity
Compat

class SendSMSActivity :
AppCompatActivity() {

    private val
SMS_PERMISSION_COD
E = 101

    override fun
onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.a
ctivitysendsms)

```

```

        val phoneEditText =
            findViewById<EditText>(R
                .id.etPhone)
        val msgEditText =
            findViewById<EditText>(R
                .id.etMessage)
        val sendBtn =
            findViewById<Button>(R.i
                d.btnSendSms)

```

```

        sendBtn.setOnClickListener {
            val phone =
                phoneEditText.text.toStrin
                    g()
            val message =
                msgEditText.text.toString()

```

```

            if
                (ActivityCompat.checkSelfPermission
                    (this,
                        Manifest.permission.SEND
                            _SMS)
                    !=
                        PackageManager.PERMISSION_GRANTED) {

```

```

                ActivityCompat.requestPer
                    missions(this,
                        arrayOf(Manifest.permissi

```

```

on.SEND_SMS),
SMS_PERMISSION_COD
E)
    } else {
        val smsManager
        =
        SmsManager.getDefault()

        smsManager.sendTextMes
        sage(phone, null, message,
        null, null)

        Toast.makeText(this, "SMS
        Sent",
        Toast.LENGTH_SHORT).s
        how()
    }
}
}
}
}

```

sendSmsActitvity.kt

```

package com.example.sms

import
android.content.Intent
import android.net.Uri
import android.os.Bundle
import
android.widget.Button
import
android.widget.EditText

```

```

import
androidx.appcompat.app.A
ppCompatActivity

class SendEmailActivity :
AppCompatActivity() {
    override fun
onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState)

setContentView(R.layout.a
ctivitysendemail)

        val emailField =
findViewById<EditText>(R
.id.etEmail)
        val subjectField =
findViewById<EditText>(R
.id.etSubject)
        val messageField =
findViewById<EditText>(R
.id.etEmailMsg)
        val sendBtn =
findViewById<Button>(R.i
d.btnSendEmail)

sendBtn.setOnClickListener {
    val email =

```



```
emailField.text.toString()
    val subject =
subjectField.text.toString()
    val message =
messageField.text.toString(
)
```

```
    val intent =
Intent(Intent.ACTION_SE
NDTO).apply {
    data =
Uri.parse("mailto:$email")
```

```
putExtra(Intent.EXTRA_S
UBJECT, subject)
```

```
putExtra(Intent.EXTRA_T
EXT, message)
    }
```

```
startActivity(Intent.create
Chooser(intent, "Send
Email"))
    }
}
}
```

BroadcasrReceiver.kt

```
package com.example.sms
```

```
import
```

```

android.content.Broadcast
Receiver
import
android.content.Context
import
android.content.Intent
import android.os.Bundle
import
android.telephony.SmsMes
sage
import
android.widget.Toast

class
ReceiveSMSBroadcastRece
iver : BroadcastReceiver() {
    override fun
onReceive(context:
Context, intent: Intent) {
        val bundle: Bundle? =
intent.extras
        bundle?.let {
            val pdus =
it["pdus"] as Array<*>
            for (pdu in pdus) {
                val sms =
SmsMessage.createFromP
du(pdu as ByteArray)
                val sender =
sms.originatingAddress
                val messageBody
= sms.messageBody

```

```

Toast.makeText(context,
    "SMS from
    $sender:\n$messageBody",
    Toast.LENGTH_LONG).show()
    }
    }
    }
}

```

Activivty_main.xml

```

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

    android:orientation="vertical"

    android:padding="20dp"

    android:layout_width="match_parent"

    android:layout_height="match_parent">

    <Button

```

```
android:id="@+id/btnSm  
s"
```

```
android:layout_width="  
match_parent"
```

```
android:layout_height="  
wrap_content"  
    android:text="Send  
SMS" />
```

```
<Button
```

```
android:id="@+id/btnEm  
ail"
```

```
android:layout_width="  
match_parent"
```

```
android:layout_height="  
wrap_content"  
    android:text="Send  
Email"
```

```
android:layout_marginT  
op="20dp" />  
</LinearLayout>
```

Androidsendsms.xml

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

```
android:orientation="vertical"
```

```
android:padding="20dp"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent">
```

```
    <EditText
```

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

```
        android:layout_width="match_parent"
```

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

```
        android:hint="Phone  
        Number"
```

```
android:inputType="phone" />
```

```
<EditText
```

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

```
android:layout_width="match_parent"
```

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

```
android:hint="Message"
```

```
android:layout_marginTop="10dp" />
```

```
<Button
```

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

```
android:layout_width="match_parent"
```

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

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

```
    android:layout_marginT  
op="10dp" />  
</LinearLayout>
```

androidsendemail.xml

```
<LinearLayout  
xmlns:android="http://sc  
hemas.android.com/apk/r  
es/android"
```

```
    android:orientation="ver  
tical"
```

```
    android:padding="20dp"
```

```
    android:layout_width="ma  
tch_parent"
```

```
    android:layout_height="ma  
tch_parent">
```

```
        <EditText
```

```
        android:id="@+id/etEmai  
l"
```

```
android:layout_width="
match_parent"
```

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

```
android:hint="Email
Address"
```

```
android:inputType="text
EmailAddress" />
```

```
<EditText
```

```
android:id="@+id/etSubje
ct"
```

```
android:layout_width="
match_parent"
```

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

```
android:hint="Subject"
```

```
android:layout_marginT
op="10dp" />
```

```
<EditText
```



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

```
android:layout_width="match_parent"
```

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

```
android:hint="Message"
```

```
android:layout_marginTop="10dp" />
```

```
<Button
```

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

```
android:layout_width="match_parent"
```

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

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

```
android:layout_marginTop="10dp" />
```

```
</LinearLayout>
```

Androidmanifest.xml

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

```
android:orientation="vertical"
```

```
android:padding="20dp"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent">
```

```
<EditText
```

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

```
android:layout_width="match_parent"
```

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

```
android:hint="Email"
```

Address"

android:inputType="text
EmailAddress" />

<EditText

android:id="@+id/etSubject"
ct"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:hint="Subject"

android:layout_marginTop="10dp" />

<EditText

android:id="@+id/etEmailMsg"
lMsg"

android:layout_width="match_parent"

android:layout_height="wrap_content"

wrap_content"

android:hint="Message"

android:layout_marginT

op="10dp" />

<Button

android:id="@+id/btnSen

dEmail"

android:layout_width="

match_parent"

android:layout_height="

wrap_content"

android:text="Send

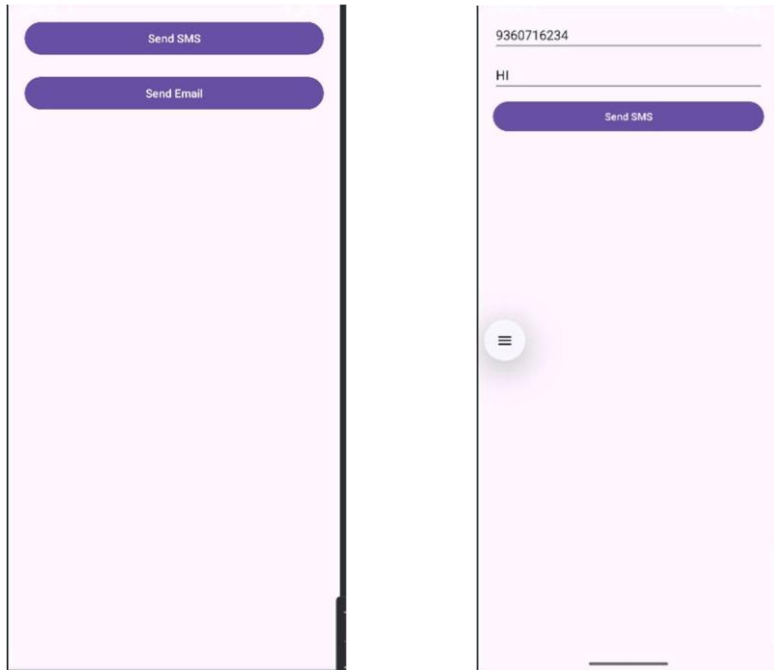
Email"

android:layout_marginT

op="10dp" />

</LinearLayout>

Output :



Result:

The Application developed using Android Studio was done.