**Experiment 6**

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**Branch: CSE Section/Group: 716/A**

**Semester: 6th Date of Performance: 12 April 2023**

**Subject Name: MAD Lab**

**AIM** : To design an android application Send SMS using Intent.

**Objective:**

1. To know About the App widgets and how to use them.
2. Learn to scroll and drag in Andros studio.
3. how to code for app widgets.
4. Use of checkbox
5. Use of intent
6. Use of SMS

**STEPS –**

1. Create a new Android Studio project and open it.
2. In the project structure, create a new layout file for the user interface of the messaging activity. You can name it **activity\_message.xml**.
3. Add the necessary UI elements to the layout file. For example, you can include an EditText for the message content, a Button to send the message, and a ListView to display the conversation history.
4. Create a new Java class for the messaging activity. You can name it **MessageActivity.java**.
5. In the **MessageActivity** class, initialize the UI elements by using the **findViewById()** method.
6. Create a new adapter class that extends the **BaseAdapter** class to handle the conversation history ListView.
7. In the **MessageActivity** class, instantiate the adapter and set it as the adapter for the ListView.
8. Create a new Java class for the message data model. You can name it **Message.java**.
9. In the **Message** class, define the necessary properties for a message object, such as the sender name, message content, and timestamp.
10. In the **MessageActivity** class, create an ArrayList to store the conversation history.
11. When the send button is clicked, retrieve the message content from the EditText and create a new **Message** object with the appropriate properties.
12. Add the new **Message** object to the conversation history ArrayList and notify the adapter that the data has changed.
13. Display the new message in the ListView by using the **getView()** method of the adapter

**MainActivity.java**

package com.example.intentsms;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.app.ActivityCompat;  
  
import android.content.pm.PackageManager;  
import android.os.Bundle;  
import android.telephony.SmsManager;  
import android.view.View;  
import android.widget.EditText;  
import android.Manifest;  
  
public class MainActivity extends AppCompatActivity {  
  
 private EditText editTextNumber;  
 private EditText editTextMessage;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 ActivityCompat.*requestPermissions*(MainActivity.this,new String[]{ Manifest.permission.*SEND\_SMS*,Manifest.permission.*READ\_SMS*}, PackageManager.*PERMISSION\_GRANTED*);  
 editTextMessage=findViewById(R.id.*editTextTextMultiLine*);  
 editTextNumber=findViewById(R.id.*editTextNumber*);  
  
 }  
 public void sendSMS(View view){  
 String message=editTextMessage.getText().toString();  
 String number=editTextNumber.getText().toString();  
 SmsManager mysmsManager=SmsManager.*getDefault*();  
 mysmsManager.sendTextMessage(number,null,message,null,null);  
  
 }  
}

# MainActivity.xml

<?xml version="1.0" encoding="utf-8"?>  
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:id="@+id/editTextTextMultiLine"  
 android:layout\_width="223dp"  
 android:layout\_height="57dp"  
 android:layout\_marginLeft="100dp"  
 android:layout\_marginTop="250dp"  
 android:ems="10"  
 android:gravity="start|top"  
 android:hint=" Write your Text"  
 android:inputType="textMultiLine" />  
  
 <EditText  
 android:id="@+id/editTextNumber"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="61dp"  
 android:layout\_marginLeft="100dp"  
 android:layout\_marginTop="160dp"  
 android:ems="10"  
 android:hint=" Type your Number"  
 android:inputType="number" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="123dp"  
 android:layout\_height="62dp"  
 android:layout\_marginLeft="150dp"  
 android:layout\_marginTop="90dp"  
 android:onClick="sendSMS"  
 android:text="Send SMS" />  
</RelativeLayout>

**Manifest.xml file**

<?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"/>  
 <uses-permission android:name="android.permission.RECEIVE\_SMS"/>  
 <uses-permission android:name="android.permission.READ\_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:supportsRtl="true"  
 android:theme="@style/Theme.IntentSms"  
 tools:targetApi="31">  
 <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>

# OUTPUT:

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