PERTEMUAN 12:
SMS
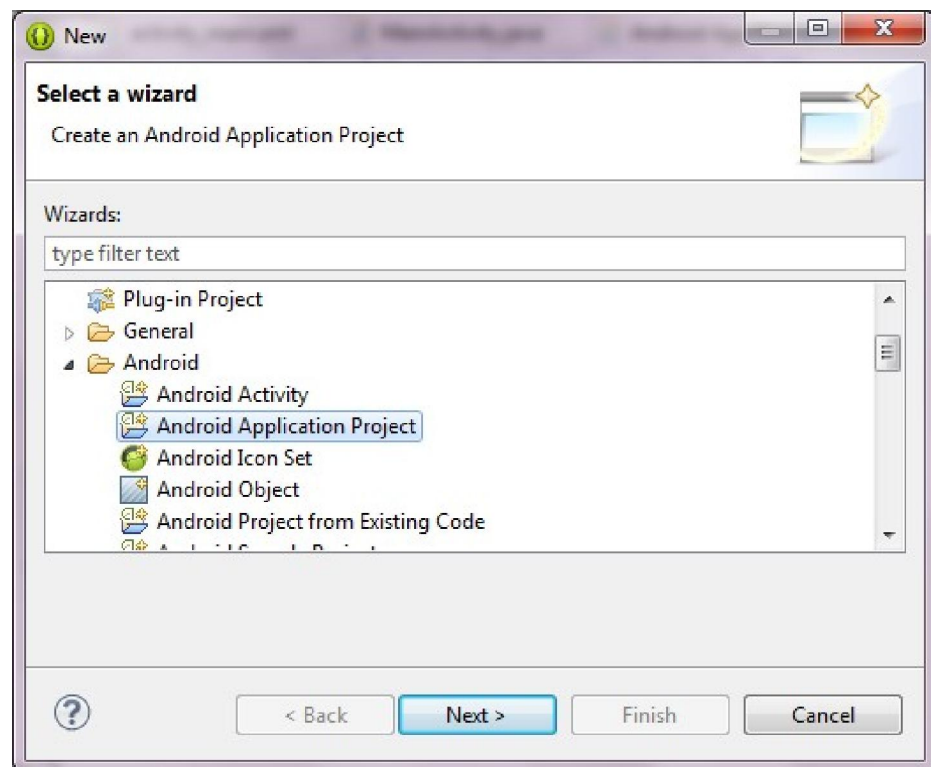
A. TUJUAN PEMBELAJARAN

Adapun tujuan pembelajaran yang akan dicapai sebagai berikut:

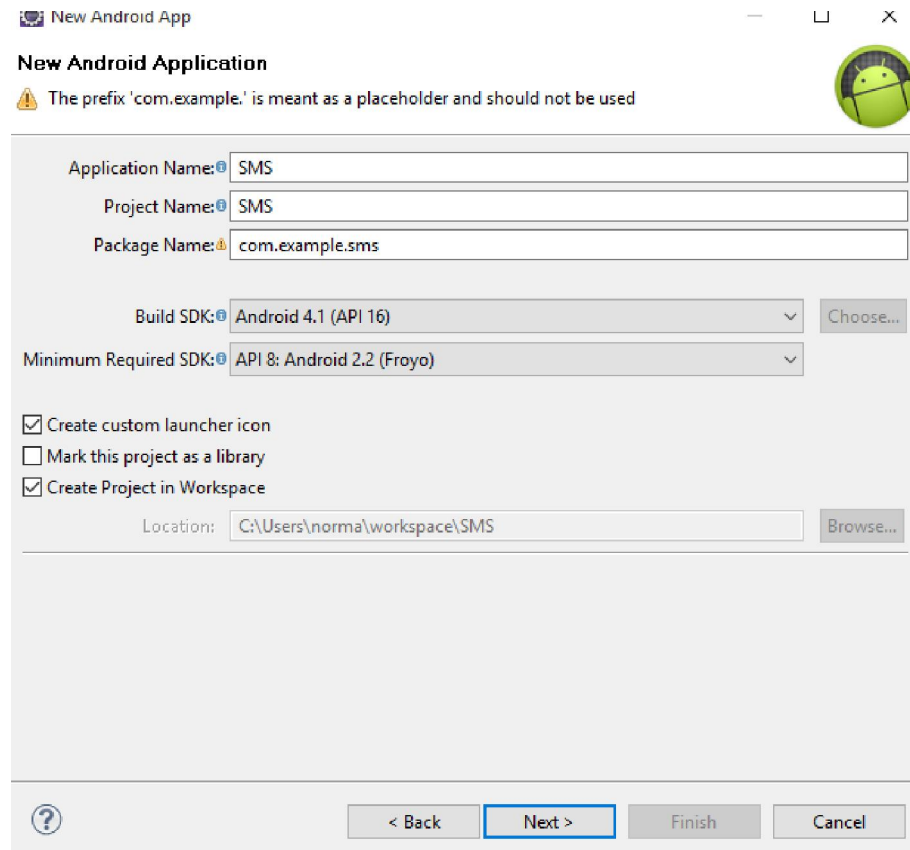12.1 Membuat desain project SMS

B. URAIAN MATERI

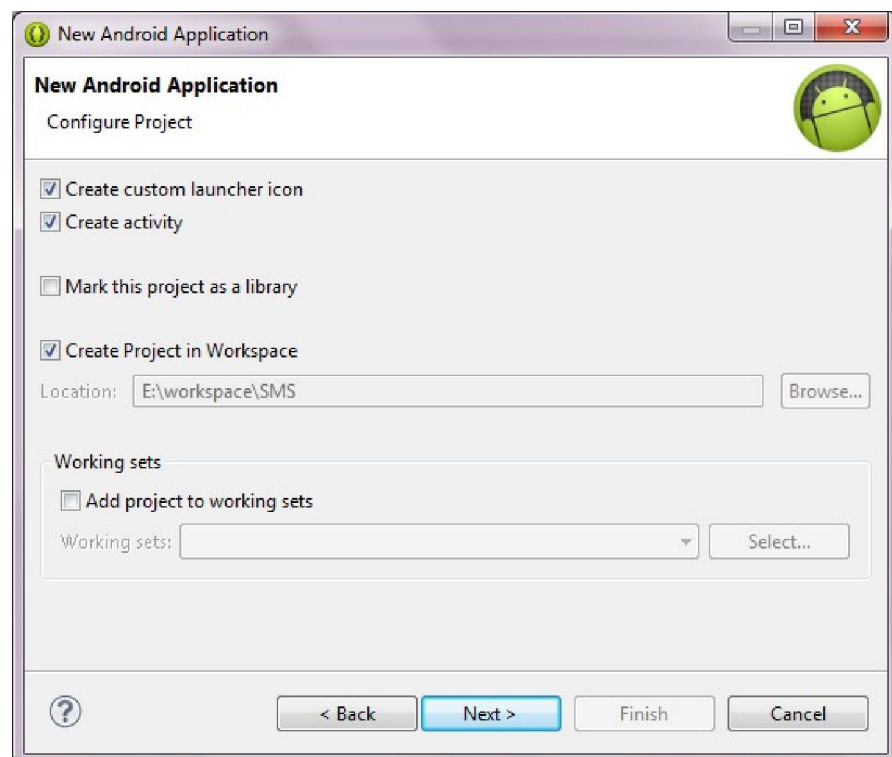Tujuan Pembelajaran 12.1:
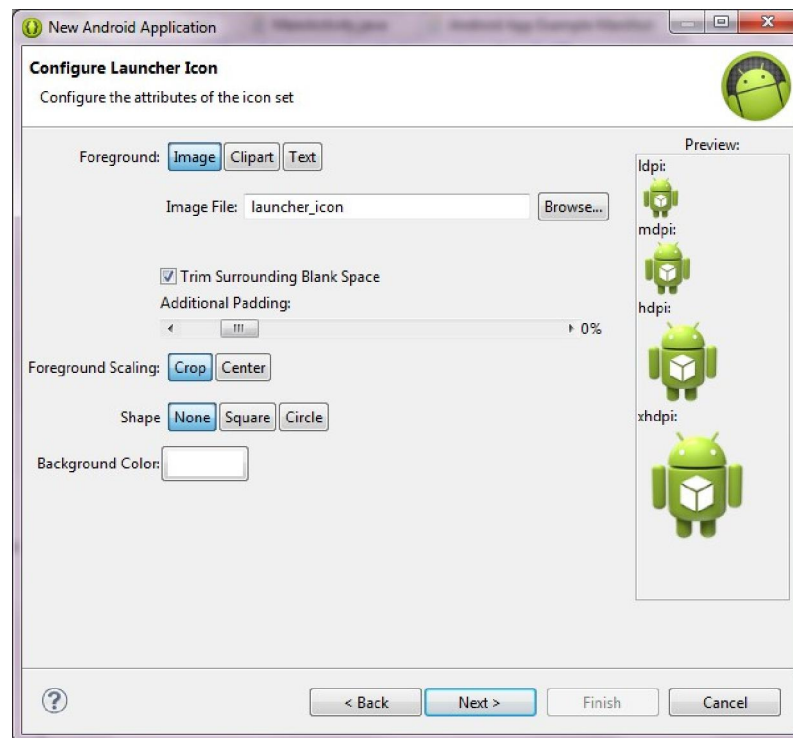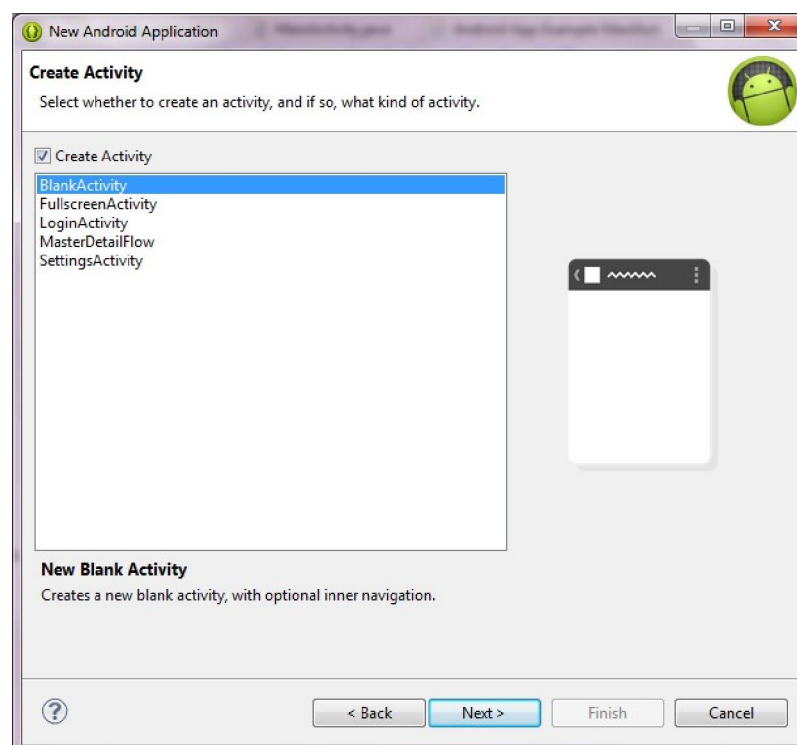
Membuat desain project SMS
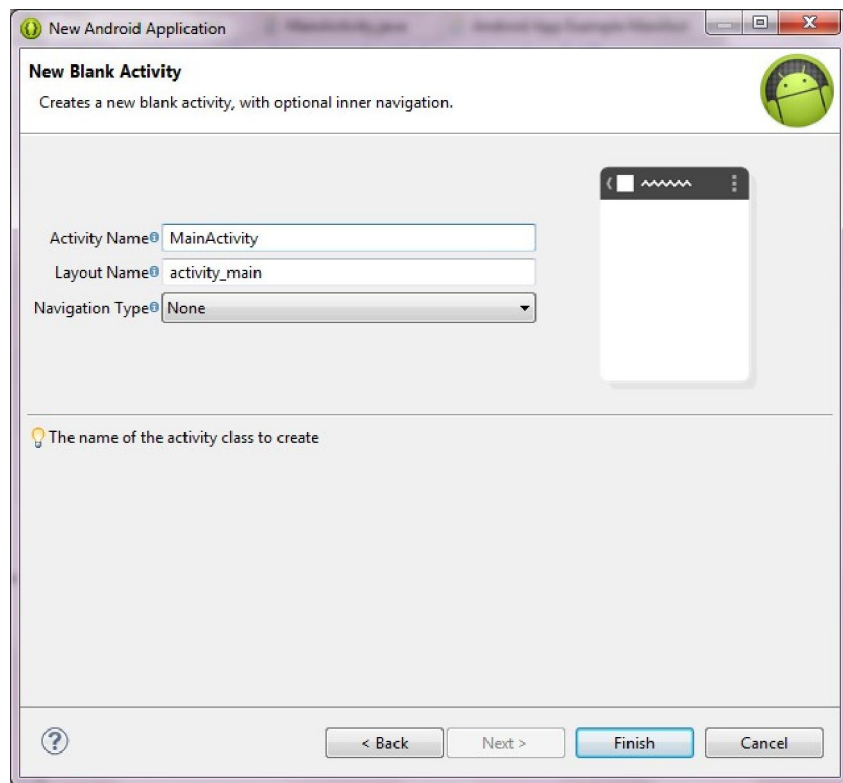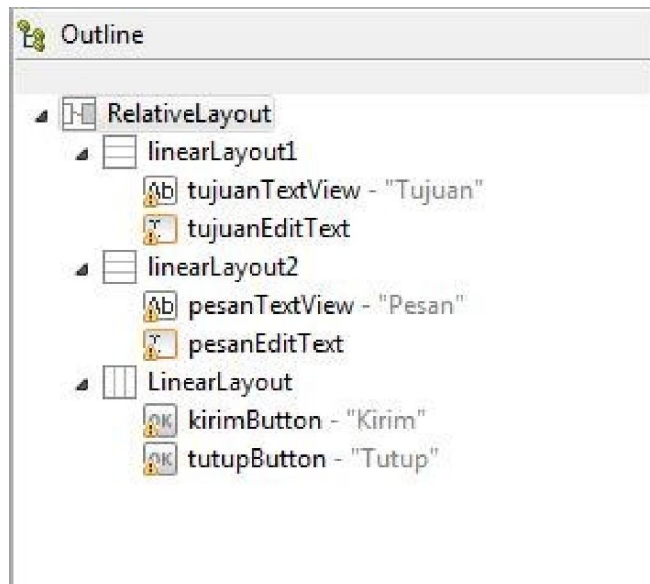

Gambar 12. 1

Gambar 12. 2

Gambar 12. 3

Gambar 12. 4

Gambar 12. 5

Gambar 12. 6

Gambar 12. 7

Gambar 12. 8

Source code XML (activity_main.):

activity_main.xml

```xml
<RelativeLayoutxmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"andro
id:layout_width="match_parent"android:layout_height
="match_parent"tools:context=".MainActivity">
<LinearLayout
      android:id="@+id/linearLayout1"android:lay
      out_width="wrap_content"android:layout_hei
      ght="wrap_content"android:layout_alignPare
      ntLeft="true"android:layout_alignParentRig
      ht="true"android:layout_alignParentTop="tr
      ue"android:orientation="vertical">
<TextView
        android:id="@+id/tujuanTextView"android:l
        ayout_width="wrap_content"android:layout_
        height="wrap_content"android:text="Tujuan
        "/>
<EditText
          android:id="@+id/tujuanEditText"android:layout_width="match_pa
          rent"android:layout_height="wrap_content">

<requestFocus/>
```

```xml
</EditText>
</LinearLayout>

<LinearLayout
android:id="@+id/linearLayout2"android:layout_width="wrap_content"android
        :layout_height="wrap_content"android:layout_alignParentLeft="true
        "android:layout_alignParentRight="true"android:layout_below="@+id
        /linearLayout1"android:orientation="vertical">

<TextView
android:id="@+id/pesanTextView"android:layout_width="wrap_content"andr
            oid:layout_height="wrap_content"android:text="Pesan"/>

        <EditTextandroid:id="@+id/editText1"an
            droid:layout_width="match_paren"and
            roid:layout_height="176dp"android:e
            ms="10"
        android:inputType="textMultiLine"/>

</LinearLayout>

<LinearLayout
        android:layout_width="wrap_content"android:layout_height="wrap_co
        ntent"android:layout_alignParentLeft="true"android:layout_alignPa
        rentRight="true"android:layout_below="@+id/linearLayout2">

<Button
            android:id="@+id/kirimButton"android:l
            ayout_width="wrap_content"android:layo
            ut_height="wrap_content"android:layout
            _weight="3"android:text="Kirim"/>

<Button
            android:id="@+id/tutupButton"android:la
            yout_width="wrap_content"android:layout
            _height="wrap_content"android:layout_we
            ight="1"android:text="Tutup"/>
</LinearLayout>

</RelativeLayout>
```

Source Code MainActivity.java

```java
package com.unpam.sms;
import android.os.Bundle;
import android.app.Activity;
import android.app.PendingIntent;
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.content.IntentFilter;
import android.telephony.SmsManager;
import android.view.Menu; import android.view.View;
import android.view.View.OnClickListener;
import android.widget.EditText;
import android.widget.Toast;

publicclass MainActivity extends Activity implements OnClickListener{
EditText tujuanEditText;
EditText pesanEditText;

@ Override
protectedvoid onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);


findViewById(R.id.kirimButton).setOnClickListener(this);
        findViewById(R.id.tutupButton).setOnClickListener(this);


tujuanEditText = (EditText)
findViewById(R.id.tujuanEditText);
pesanEditText = (EditText) findViewById(R.id.pesanEditText);
}

@ Override
publicboolean onCreateOptionsMenu(Menu menu) {
 // Inflate the menu; this adds items to the action bar if it is present.
 getMenuInflater().inflate(R.menu.activity_main, menu);
            returntrue;
}

@ Override
publicvoid onClick(View v) {
// TODO Auto-generated method stub
 switch (v.getId()){
 case R.id.kirimButton:
String tujuan = tujuanEditText.getText().toString();
 String pesan = pesanEditText.getText().toString();

 if (tujuan.length()>0 && pesan.length()>0){
 sendSMS(tujuan, pesan);
 } else{
 Toast.makeText(getBaseContext(),"No. tujuan dan pesan harus
diisi",Toast.LENGTH_SHORT).show();
```

```java
  }
break;
case R.id.tutupButton:
System.exit(0);
}
}


privatevoid sendSMS(String phoneNumber, String message){
String SENT = "SMS_SENT";
 String DELIVERED = "SMS_DELIVERED";

 PendingIntent sentPI = PendingIntent.getBroadcast(this, 0, new
Intent(SENT), 0);

 PendingIntent deliveredPI = PendingIntent.getBroadcast(this, 0, new
Intent(DELIVERED), 0);

 registerReceiver(new BroadcastReceiver(){
@ Override
 publicvoid onReceive(Context arg0, Intent arg1) {
      switch (getResultCode())
{
case Activity.RESULT_OK:
 Toast.makeText(getBaseContext(), "SMS telah dikirim",
Toast.LENGTH_SHORT).show();
      break;
 case SmsManager.RESULT_ERROR_GENERIC_FAILURE:
           Toast.makeText(getBaseContext(),
"Generic failure", Toast.LENGTH_SHORT).show();
      break;
case SmsManager.RESULT_ERROR_NO_SERVICE:
 Toast.makeText(getBaseContext(), "No service",
Toast.LENGTH_SHORT).show();
       break;
 case SmsManager.RESULT_ERROR_NULL_PDU:
Toast.makeText(getBaseContext(), "NullPDU", Toast.LENGTH_SHORT).show();
       break;
 case SmsManager.RESULT_ERROR_RADIO_OFF:
 Toast.makeText(getBaseContext(), "Radio off",Toast.LENGTH_SHORT).show();
      break;
}
}
}, new IntentFilter(SENT));

 registerReceiver(new BroadcastReceiver(){
@ Override
 publicvoid onReceive(Context arg0, Intent arg1) {
      switch (getResultCode())
{
case Activity.RESULT_OK:
```
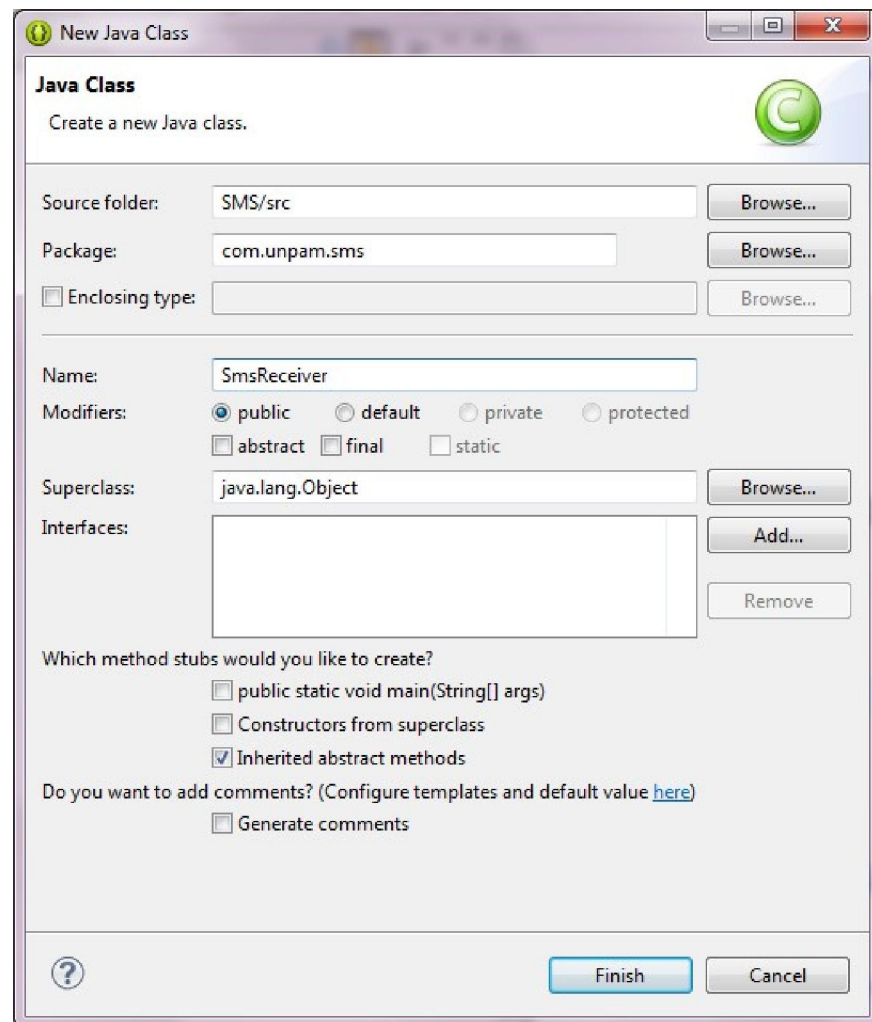
```java
Toast.makeText(getBaseContext(), "SMS
Terkirim", Toast.LENGTH_SHORT).show();
    break;
 case Activity.RESULT_CANCELED:
Toast.makeText(getBaseContext(), "SMSTidak Terkirim",
Toast.LENGTH_SHORT).show();
break;
}
}
}, new IntentFilter(DELIVERED));
        SmsManager sms = SmsManager.getDefault();
 sms.sendTextMessage(phoneNumber, null, message, sentPI,
 deliveredPI);
     }
 }
```

Source Code SmsReceiver
Tambahkan class SmsReceiver:

Gambar 12. 9

```
package com.unpam.sms;
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;
import android.telephony.SmsMessage;
import android.widget.Toast;

publicclass SmsReceiver extends BroadcastReceiver{
    @Override
```

```java
    publicvoid onReceive(Context arg0, Intent arg1) {
          // TODO Auto-generated method stub
       Bundle bundle = arg1.getExtras();
     SmsMessage[] msgs = null;
     String str = "";

if (bundle != null){
        Object[] pdus = (Object[]) bundle.get("pdus");
msgs = new SmsMessage[pdus.length];
for (int i=0; i<msgs.length; i++){
             msgs[i] = SmsMessage.createFromPdu((byte[])pdus[i]);
str += "SMS dari " + msgs[i].getOriginatingAddress();
str += " :";
             str += msgs[i].getMessageBody().toString();
str += "\n";
          }

          Toast.makeText(arg0, str, Toast.LENGTH_SHORT).show();
}
    }

}
```

Karena aplikasi membutuhkan permission untuk mengirim dan menerima SMS, maka tambahkan tag uses-permission di dalam file AndroidManifest.xml (di antara tag uses-sdk dan application).

```xml
    <uses-permissionandroid:name="android.permission.SEND_SMS"/>
   <uses-permissionandroid:name="android.permission.RECEIVE_SMS"/>
```

Agar aplikasi memproses class SmsReceiver ketika menerima SMS, tambahkan tagreceiver di bawah ini di dalam tag application.

```xml
<receiverandroid:name=".SmsReceiver">
<intent-filter>
<actionandroid:name="android.provider.Telephony.SMS_RECEIVED"/>
</intent-filter>
</receiver>
```

C. SOAL LATIHAN/TUGAS

D. DAFTAR PUSTAKA

Allen, Grant. 2012. Beginning Android 4. New York : Apress.

Safaat, H. Nazruddin. 2015. ANDROID Pemrograman Aplikasi Mobile Smartphone dan Tablet PC Berbasis Android. Bandung: Informatika