

1. Write a program to demonstrate the use of Linear Layout and and Absolute Layout

Ans:

Linear Layout:

activity\_main.xml:

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

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Implementation"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" Of"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" Linear"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Layout"/>

</LinearLayout>
```

MainActivity.java:

```
package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

}
```

Absolute Layout:

activity\_main.xml:

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

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Implementation"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_x="100dp"
        android:layout_y="20dp"
        android:text=" of"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_x="130dp"
        android:layout_y="30dp"
        android:text=" Absolute"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_x="189dp"
        android:layout_y="30dp"
        android:text="Layout"/>

</AbsoluteLayout>
```

MainActivity.java:

```
package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

}
```

## 2. Develop a program to implement table layout and relative layout

Ans:

Table Layout:

activity\_main.xml:

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

    <TableRow
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
        <TextView
            android:layout_height="wrap_content"
            android:layout_width="wrap_content"
            android:text="Name"/>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Roll Number"/>
    </TableRow>
    <TableRow
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
        <TextView
            android:layout_height="wrap_content"
            android:layout_width="wrap_content"
            android:text="Arun"/>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="5"/>
    </TableRow>
    <TableRow
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
        <TextView
            android:layout_height="wrap_content"
            android:layout_width="wrap_content"
            android:text="Raj"/>
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="56"/>
    </TableRow>

</TableLayout>
```

MainActivity.java:

```
package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Relative Layout:

activity\_main.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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="This"
        android:id="@+id/tv1"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" is"
        android:layout_below="@id/tv1"
        android:id="@+id/tv2"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" Implementation"
        android:layout_below="@id/tv2"
        android:id="@+id/tv3"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" of "
        android:layout_toRightOf="@id/tv3"
        android:layout_below="@id/tv2"
        android:id="@+id/tv4"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=" RelativeLayout "
        android:layout_toRightOf="@id/tv4"
        android:layout_below="@id/tv2">
```

```

        android:id="@+id/tv5"/>

</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

}

```

### 3. Write a program to demonstrate the use of Autocomplete Textview

Ans:

activity\_main.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">

    <AutoCompleteTextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/atv"
        android:hint="Enter a State"/>

    <requestFocus/>
</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;

public class MainActivity extends AppCompatActivity {
    String[] state = {"Maharashtra", "Manipur", "Gujurat", "Andhra

```

```
Pradesh", "Haryana", "Sikkim", "Arunachal Pradesh", "Himachal Pradesh", "Tamil Nadu", "Tripura"};
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    ArrayAdapter arr = new ArrayAdapter(this,
    android.R.layout.select_dialog_item, state);
    AutoCompleteTextView ac =
    (AutoCompleteTextView) findViewById(R.id.atv);
    ac.setThreshold(1);
    ac.setAdapter(arr);
}
}
```

#### 4. Write a program to demonstrate the use of Radio Button

Ans:

activity\_main.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">

    <RadioButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/rb1"
        android:text="Pizza"/>

    <RadioButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/rb1"
        android:id="@+id/rb2"
        android:text="Burger"/>

</RelativeLayout>
```

MainActivity.java:

```
package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import android.widget.RadioButton;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
```

```

        RadioButton rb1, rb2;

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

            rb1 = findViewById(R.id.rb1);
            rb2 = findViewById(R.id.rb2);

            rb1.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    Toast.makeText(MainActivity.this, "Pizza",
Toast.LENGTH_SHORT).show();
                }
            });

            rb2.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    Toast.makeText(MainActivity.this, "Burger",
Toast.LENGTH_SHORT).show();
                }
            });
        }
    }
}

```

## 5. Write a program to demonstrate the use of List View

Ans:

activity\_main.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">

    <ListView
        android:layout_height="wrap_content"
        android:layout_width="wrap_content"
        android:id="@+id/lv1"/>

</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;

```

```

import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import android.widget.ListView;
import android.widget.RadioButton;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    ListView lv1;
    String[] cars = {"Ferrari", "Lamborghini", "Buggati", "Konigsegg"};

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

        lv1 = findViewById(R.id.lv1);
        ArrayAdapter<String> arr = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1, cars);

        lv1.setAdapter(arr);

        lv1.setOnItemClickListener(new AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
position, long id) {
                String Selected = (String)
parent.getItemAtPosition(position);
                Toast.makeText(MainActivity.this, Selected,
Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```

## 6. Write a program to create a of Custom Toast

Ans:

activity\_main.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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/tv1"
        android:text="Custom Toast Project"
        android:layout_centerHorizontal="true"
        android:textSize="30dp"/>

```



```

        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/bt1"
            android:layout_below="@id/tv1"
            android:text="SUBMIT"
            android:layout_centerHorizontal="true"/>
    </RelativeLayout>

```

customtoast.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/ct1">

    <ImageView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:src="@drawable/imag1"
        android:id="@+id/iv1"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Custom Toast"
        android:id="@+id/tv1"
        android:layout_below="@id/iv1"
        android:textSize="30dp"/>
</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1 = findViewById(R.id.bt1);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                LayoutInflater inflater = getLayoutInflater();
                View layout = inflater.inflate(R.layout.customtoast,
                (ViewGroup) findViewById(R.id.ct1));

                Toast toast = new Toast(getApplicationContext());
                toast.setDuration(Toast.LENGTH_SHORT);
            }
        });
    }
}

```

```

        toast.setView(layout);
        toast.show();
    }
    });
}
}

```

## 7. Write a program to demonstrate the use of DatePicker

Ans:

activity\_main.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">

    <DatePicker
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/dp1"/>

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/dp1"
        android:id="@+id/b1"
        android:text="Display"/>

</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    Button b1;
    DatePicker dp1;

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

        dp1 = findViewById(R.id.dp1);
    }
}

```

```

        b1 = findViewById(R.id.b1);

        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int month = dp1.getMonth() + 1;
                Toast.makeText(MainActivity.this, "Date: " +
                    dp1.getDayOfMonth() + "/" + month + "/" + dp1.getYear(),
                    Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```

## 8. Android Program to enable and disable WiFi Connection

Ans:

activity\_main.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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Wifi State: "
        android:id="@+id/tv1"
        android:layout_centerHorizontal="true"
        android:textSize="20dp"/>

    <ToggleButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:checked="true"
        android:layout_centerHorizontal="true"
        android:id="@+id/tb1"
        android:layout_below="@id/tv1"/>

</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.net.wifi.WifiManager;
import android.os.Bundle;

```

```

import android.view.View;
import android.widget.Toast;
import android.widget.ToggleButton;

public class MainActivity extends AppCompatActivity {

    ToggleButton t1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        t1 = findViewById(R.id.tb1);
        t1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                WifiManager wifi = (WifiManager) getApplicationContext().getSystemService(Context.WIFI_SERVICE);
                if (t1.isChecked()) {
                    wifi.setWifiEnabled(false);
                    Toast.makeText(MainActivity.this, "Wifi is disabled", Toast.LENGTH_SHORT).show();
                } else {
                    wifi.setWifiEnabled(true);
                    Toast.makeText(MainActivity.this, "Wifi is enabled", Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}

```

Android Manifests:

```

<uses-permission
android:name="android.permission.ACCESS_WIFI_STATE"></uses-permission>
<uses-permission
android:name="android.permission.CHANGE_WIFI_STATE"></uses-permission>

```

9. Develop a program to implement explicit intent and implicit intent

Ans:

Explicit Intent:

activity\_main.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">

```

```

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Explicit Intent"
    android:id="@+id/tv1"
    android:layout_centerHorizontal="true"
    android:textSize="20dp"/>
<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/tv1"
    android:layout_centerHorizontal="true"
    android:id="@+id/bt1"
    android:text="Click"/>

</RelativeLayout>

```

MainActivity.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {

    Button b1;

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

        b1 = findViewById(R.id.bt1);

        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Uri uri = Uri.parse("https://www.youtube.com");
                Intent intent = new Intent(Intent.ACTION_VIEW, uri);
                startActivity(intent);
            }
        });
    }
}

```

Implicit Intent:

activity\_main.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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Implicit Intent"
        android:id="@+id/tv1"
        android:layout_centerHorizontal="true"
        android:textSize="20dp"/>

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/tv1"
        android:layout_centerHorizontal="true"
        android:id="@+id/bt1"
        android:text="Click"/>

</RelativeLayout>
```

Implicit.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/ct1">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="2nd Activity"
        android:id="@+id/tv1"
        android:layout_centerHorizontal="true"
        android:textSize="30dp"/>

</RelativeLayout>
```

MainActivity.java:

```
package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {
```

```

Button b1;

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

    b1 = findViewById(R.id.bt1);

    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent = new Intent(MainActivity.this,
implicit.class);
            startActivity(intent);
        }
    });
}
}

```

implicit.java:

```

package com.example.practicalmad;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class implicit extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.implicit);

    }
}

```

AndroidManifest.xml:

```

<activity android:name=".implicit"/>

```

## 10. Write a Program to Send SMS

Ans:

activity\_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="match_parent"
    android:layout_height="match_parent">
    <TextView
        android:id="@+id/fstTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="150dp"
        android:text="Mobile No" />
    <EditText
        android:id="@+id/mb1Txt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:ems="10" />
    <TextView
        android:id="@+id/secTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Message"
        android:layout_marginLeft="100dp" />
    <EditText
        android:id="@+id/msgTxt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:ems="10" />
    <Button
        android:id="@+id/btnSend"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:text="Send SMS" />
</LinearLayout>
```

MainActivity.java:

```
package com.example.practicalmad;

import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText txtMobile;
    private EditText txtMessage;
    private Button btnSms;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
```



```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
txtMobile = (EditText)findViewById(R.id.mblTxt);
txtMessage = (EditText)findViewById(R.id.msgTxt);
btnSms = (Button)findViewById(R.id.btnSend);
btnSms.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        try {
            SmsManager smgr = SmsManager.getDefault();
            smgr.sendTextMessage(txtMobile.getText().toString(),
null, txtMessage.getText().toString(), null, null);
            Toast.makeText(MainActivity.this, "SMS Sent
Successfully", Toast.LENGTH_SHORT).show();
        } catch (Exception e) {
            Toast.makeText(MainActivity.this, "SMS Failed to Send,
Please try again", Toast.LENGTH_SHORT).show();
        }
    }
});
}
}

```

AndroidManifests.xml:

```

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

```

## 11. Android to display all available sensors in a mobile device

Ans:

activity\_main.xml:

```

<?xml version="1.0" encoding="UTF-8"?>
<LinearLayout
    android:paddingRight="10dp"
    android:paddingLeft="10dp"
    android:layout_height="match_parent"
    android:layout_width="match_parent"
    android:orientation="vertical"
    xmlns:android="http://schemas.android.com/apk/res/android">
    <TextView
        android:layout_height="wrap_content"
        android:layout_width="wrap_content"
        android:visibility="gone"
        android:layout_gravity="center"
        android:textStyle="bold"
        android:textSize="20dp"
        android:text="Sensors"
        android:layout_marginTop="80dp"
        android:id="@+id/sensorslist"/>
</LinearLayout>

```

## MainActivity.java:

```
package com.example.practicalmad;

import android.os.Bundle;
import android.content.Context;
import android.hardware.Sensor;
import android.hardware.SensorManager;
import android.view.View;
import android.widget.TextView;
import java.util.List;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private SensorManager mgr;
    private TextView txtList;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        mgr = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
        txtList = (TextView) findViewById(R.id.sensorslist);
        List<Sensor> sensorList = mgr.getSensorList(Sensor.TYPE_ALL);
        StringBuilder strBuilder = new StringBuilder();
        for (Sensor s: sensorList) {
            strBuilder.append(s.getName() + "\n");
        }
        txtList.setVisibility(View.VISIBLE);
        txtList.setText(strBuilder);
    }
}
```