Practical No.: 6
Aim: Create a Mobile Application to
1.Turn on and Turn off Bluetooth
2.Enable and Disable WiFi

Source Code:

Granting permission to Enable, Disable WiFi and Bluetooth

__AndroidManifest.xml__

```xml
<uses-permission android:name="android.permission.INTERNET"/>
<uses-permission android:name="android.permission.BLUETOOTH"/>
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN"/>
<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
<uses-permission android:name="android.permission.ACCESS_WIFI_STATE"/>
<uses-permission android:name="android.permission.CHANGE_WIFI_STATE"/>
```

__Activity_main.xml__

```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"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btnOn"
        android:text="@string/turn_on"/>

    <Button
        android:id="@+id/btnOff"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/turn_off"/>

    <Button
        android:id="@+id/btnWifiOn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/wifi_on"/>

    <Button
        android:id="@+id/btnWifiOff"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="@string/wifi_off"/>

</LinearLayout>
```

```java
package com.example.practical_no_6;

import androidx.appcompat.app.AppCompatActivity;
import android.bluetooth.BluetoothAdapter;
import android.content.Context;
import android.content.Intent;
import android.net.wifi.WifiManager;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    Button btnOn,btnOff,btnWifiOn,btnWifiOff;
    WifiManager wifiManager;
    BluetoothAdapter bluetoothAdapter;

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

        btnOn=findViewById(R.id.btnOn);
        btnOff=findViewById(R.id.btnOff);
        btnWifiOn=findViewById(R.id.btnWifiOn);
        btnWifiOff=findViewById(R.id.btnWifiOff);

        wifiManager= (WifiManager) getApplicationContext().getSystemService(Context.WIFI_SERVICE);
        bluetoothAdapter=BluetoothAdapter.getDefaultAdapter();

        btnWifiOn.setOnClickListener(
            new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    wifiManager.setWifiEnabled(true);
                    Toast.makeText(MainActivity.this, "WiFi Turned On",
Toast.LENGTH_SHORT).show();
                }
            }
        );

        btnWifiOff.setOnClickListener(
            new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    wifiManager.setWifiEnabled(false);
                    Toast.makeText(MainActivity.this, "WiFi Turned Off",
Toast.LENGTH_SHORT).show();
                }
            }
        );
```

```
        btnOn.setOnClickListener(
            new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    if(bluetoothAdapter==null)
                    {
                        Toast.makeText(MainActivity.this, "Bluetooth Not Supported",
Toast.LENGTH_SHORT).show();
                    }
                    else
                    {
                        if(!bluetoothAdapter.isEnabled())
                        {
                            startActivityForResult(new
Intent(BluetoothAdapter.ACTION_REQUEST_ENABLE),1);
                            Toast.makeText(MainActivity.this, "Bluetooth Turned On",
Toast.LENGTH_SHORT).show();
                        }
                    }
                }
            }
        );

        btnWifiOff.setOnClickListener(
            new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    if(bluetoothAdapter!=null)
                    {
                        bluetoothAdapter.disable();
                    }
                    Toast.makeText(MainActivity.this, "Bluetooth Turned Off",
Toast.LENGTH_SHORT).show();
                }
            }
        );
    }
}
```

Strings.xml

```
<resources>
    <string name="app_name">Practical_No_6</string>
    <string name="turn_on">Turn On</string>
    <string name="turn_off">Turn Off</string>
    <string name="wifi_on">Wifi On</string>
    <string name="wifi_off">Wifi Off</string>
</resources>
```

Output: