Practical 24

1. Write a Program to turn on, turn off, get visible, list visible and turn off Bluetooth with the help of GUI.

Xml Code :

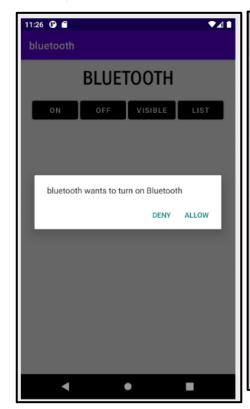
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  android:layout_width="match_parent"
  android:layout height="match parent"
  android:orientation="vertical"
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="BLUETOOTH"
    android:textStyle="bold"
    android:layout_marginTop="15dp"
    android:textColor="@color/black"
    android:textSize="35sp"
    android:fontFamily="sans-serif-smallcaps"
    android:layout_gravity="center"
    android:gravity="center"
    />
  <LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:layout_marginVertical="15dp"
    android:orientation="horizontal">
    <Button
       android:id="@+id/b1"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:onClick="geton"
       android:text="ON"
       android:layout_marginHorizontal="2dp"
       android:textColor="@color/white"
       android:backgroundTint="@color/black"/>
    <Button
       android:id="@+id/b2"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:onClick="getoff"
       android:text="OFF"
       android:layout_marginHorizontal="2dp"
       android:textColor="@color/white"
       android:backgroundTint="@color/black"/>
    <Button
```

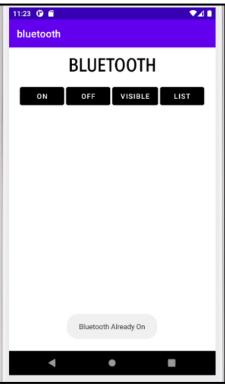
```
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                                                Roll no: 19406
                                                                                   MAD Experiments
       android:id="@+id/b3"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content"
       android:onClick="getvisible"
       android:text="VISIBLE"
       android:layout_marginHorizontal="2dp"
       android:textColor="@color/white"
       android:backgroundTint="@color/black"/>
    <Button
       android:id="@+id/b4"
       android:layout width="wrap content"
       android:layout_height="wrap_content"
       android:onClick="getlist"
       android:text="LIST"
       android:layout_marginHorizontal="2dp"
       android:textColor="@color/white"
       android:backgroundTint="@color/black"/>
  </LinearLayout>
    <ListView
       android:layout_width="386dp"
       android:layout height="505dp"
       android:id="@+id/l1"
       android:layout_marginTop="30dp"
       android:layout_gravity="center"
       />
</LinearLayout>
Java Code:
package com.example.sensor;
package com.example.bluetooth;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import android. Manifest;
import android.bluetooth.BluetoothAdapter;
import android.bluetooth.BluetoothDevice;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ListView;
import android.widget.Toast;
import java.util.ArrayList;
import java.util.Set;
public class MainActivity extends AppCompatActivity {
  Button b1,b2,b3,b4;
  private BluetoothAdapter BA;
  ListView 11;
  private Set<BluetoothDevice> pairedDevices;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    b1 = findViewById(R.id.b1);
```

```
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    b2 = findViewById(R.id.b2);
    b3 = findViewById(R.id.b3);
    b4 = findViewById(R.id.b4);
    BA = BluetoothAdapter.getDefaultAdapter();
    11 = (ListView) findViewById(R.id.11);
    b1.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        if (!BA.isEnabled()) {
           Intent turnOn = new Intent(BluetoothAdapter.ACTION_REQUEST_ENABLE);
       if (ActivityCompat.checkSelfPermission(getApplicationContext(),
       Manifest.permission.BLUETOOTH_CONNECT) != PackageManager.PERMISSION_GRANTED) {
             startActivityForResult(turnOn, 0);
             Toast.makeText(getApplicationContext(), "Bluetooth Turned On", Toast.LENGTH_LONG).show();
        } else {
           Toast.makeText(getApplicationContext(), "Bluetooth Already On", Toast.LENGTH_LONG).show();
      }
    });
    b2.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
       if (ActivityCompat.checkSelfPermission(getApplicationContext(),
       Manifest.permission.BLUETOOTH_CONNECT) != PackageManager.PERMISSION_GRANTED) {
           BA.disable();
          Toast.makeText(getApplicationContext(), "Bluetooth Turned Off", Toast.LENGTH_LONG).show();
    });
    b3.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
        Intent get = new Intent(BluetoothAdapter.ACTION_REQUEST_DISCOVERABLE);
       if (ActivityCompat.checkSelfPermission(getApplicationContext(),
       Manifest.permission.BLUETOOTH_ADVERTISE) != PackageManager.PERMISSION_GRANTED) {
           startActivityForResult(get, 0);
        }
    });
    b4.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
       if (ActivityCompat.checkSelfPermission(getApplicationContext(),
       Manifest.permission.BLUETOOTH_CONNECT) != PackageManager.PERMISSION_GRANTED) {
           pairedDevices = BA.getBondedDevices();
           ArravList list=new ArravList():
           for(BluetoothDevice bt:pairedDevices){
             list.add(bt.getName());
           Toast.makeText(getApplicationContext(), "Showing Paired Devices", Toast.LENGTH_LONG).show();
           ArrayAdapter adpt=new ArrayAdapter(MainActivity.this,android.R.layout.simple list item 1,list);
           11.setAdapter(adpt);
    });
```

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Output:







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