

## 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"
    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
```

```
        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.AdapterView;
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 l1;
    private Set<BluetoothDevice> pairedDevices;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1 = findViewById(R.id.b1);
```

```
b2 = findViewById(R.id.b2);
b3 = findViewById(R.id.b3);
b4 = findViewById(R.id.b4);
BA = BluetoothAdapter.getDefaultAdapter();
l1 = (ListView) findViewById(R.id.l1);
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();
            ArrayList list=new ArrayList();
            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);
            l1.setAdapter(adpt);
        }
    }
});
}
```

Name : Aditya Choudhary

Roll no : 19406

MAD Experiments

Output:

