

MainActivity.java:

```
import android.bluetooth.BluetoothAdapter;
import android.bluetooth.BluetoothDevice;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ImageButton;
import android.widget.ListView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import java.util.ArrayList;
import java.util.Set;

public class MainActivity extends AppCompatActivity {

    ImageButton imgon;
    ImageButton imgoff;
    private BluetoothAdapter bluetoothAdapter;
    private ListView listView;

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

        imgon = findViewById(R.id.wion);
        imgoff = findViewById(R.id.wioff);
        listView = findViewById(R.id.listView);

        bluetoothAdapter = BluetoothAdapter.getDefaultAdapter();

        imgon.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                enableBluetooth();
            }
        });

        imgoff.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                disableBluetooth();
            }
        });

        // List paired devices when the activity starts
        listPairedDevices();

        // Set up item click listener for the ListView
        listView.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
```

```

@Override
public void
onItemClick(AdapterView<?> adapterView, View view,
int i, long l) {
    String deviceName =
    (String)
    adapterView.getItemAtPosition(i);
    Toast.makeText(MainActivity.this, "Clicked on: " +
    deviceName,
    Toast.LENGTH_SHORT).show();
}

private void enableBluetooth() {
    if (!bluetoothAdapter.isEnabled()) {
        Intent turnOn = new
        Intent(BluetoothAdapter.ACTION_REQUEST_ENABLE);
        startActivityForResult(turnOn, 0);
    }
    Toast.makeText(MainActivity.this, "Bluetooth Enabled",
    Toast.LENGTH_SHORT).show();
    imgon.setVisibility(View.INVISIBLE);
    imgoff.setVisibility(View.VISIBLE);
}

private void disableBluetooth() {
    bluetoothAdapter.disable();
    Toast.makeText(MainActivity.this, "Bluetooth Disabled",
    Toast.LENGTH_SHORT).show();
    imgon.setVisibility(View.VISIBLE);
    imgoff.setVisibility(View.INVISIBLE);
}

private void listPairedDevices() {
    Set<BluetoothDevice> pairedDevices =
        bluetoothAdapter.getBondedDevices();
    ArrayList<String> devicesList = new ArrayList<>();
    if (pairedDevices.size() > 0) {
        for (BluetoothDevice device : pairedDevices) {
            devicesList.add(device.getName() + "\n" +
            device.getAddress());
        }
    } else {
        devicesList.add("No paired devices");
    }
    ArrayAdapter<String> arrayAdapter = new ArrayAdapter<>(this,
    android.R.layout.simple_list_item_1, devicesList);
    listView.setAdapter(arrayAdapter);
}
}

```

Xml:

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

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/black"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="10dp"

        android:text="Bluetooth AD28"
        android:textColor="@color/white"
        android:textSize="40dp"
        android:textStyle="bold" />

    <ImageButton
        android:id="@+id/wion"
        android:layout_width="wrap_content"

        android:layout_below="@id/textView"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:background="@android:color/transparent"
        android:src="@drawable/ic_blueon" />

    <ImageButton
        android:id="@+id/wioff"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/textView"
        android:layout_centerInParent="true"
        android:layout_centerVertical="true"
        android:background="@android:color/transparent"
        android:src="@drawable/ic_blueoff"
        android:visibility="invisible" />

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="10dp"

        android:text="List of Paired Devices:"
        android:textColor="@color/white"
        android:layout_below="@+id/wion"
        android:textSize="20dp"
        android:textStyle="bold" />

    <ListView
```

```
        android:id="@+id/listView"
        android:background="@color/white"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_below="@id/textView1"
        android:layout_marginTop="19dp" />

</RelativeLayout>
```

Manifest permissions:

```
<uses-permission android:name="android.permission.BLUETOOTH"/>
<uses-permission android:name="android.permission.BLUETOOTH_CONNECT"/>
<uses-permission android:name="android.permission.BLUETOOTH_SCAN"/>
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN"/>
<uses-permission android:name="android.permission.BLUETOOTH_ADVERTISE"/>
```