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">

    <CheckBox
        android:id="@+id/enable_bt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="20dp"
        android:text="Enable" />
    <CheckBox
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/visible_bt"
        android:layout_alignParentRight="true"
        android:layout_marginEnd="16dp"
        android:text="Visible" />
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:text="My Bluetooth"
        android:id="@+id/name_bt"
        android:textSize="16dp"
        android:layout_marginTop="8dp"
        android:textStyle="bold"/>
    <ImageView
        android:id="@+id/search_bt"
        android:layout_width="57dp"
        android:layout_height="53dp"
        android:layout_below="@id/name_bt"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:padding="5dp"
        android:src="@drawable/baseline_bluetooth_audio_24" />
    <ListView
        android:id="@+id/list_view"
        android:layout_width="match_parent"
        android:layout_height="match
```

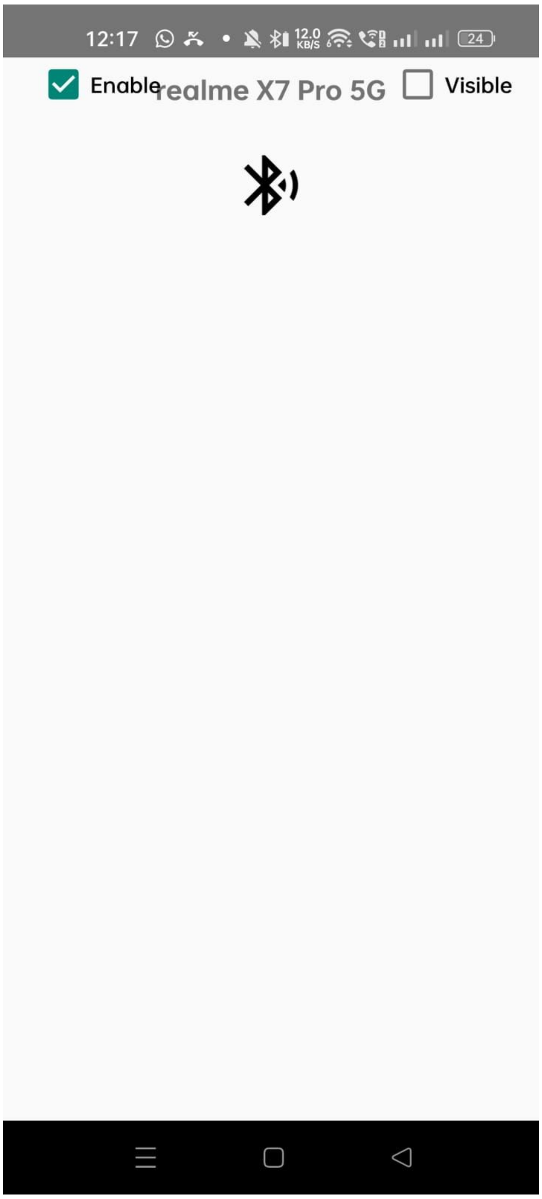
```
_parent"

android:layout_below="@id/search_bt"/>
</RelativeLayout>
```

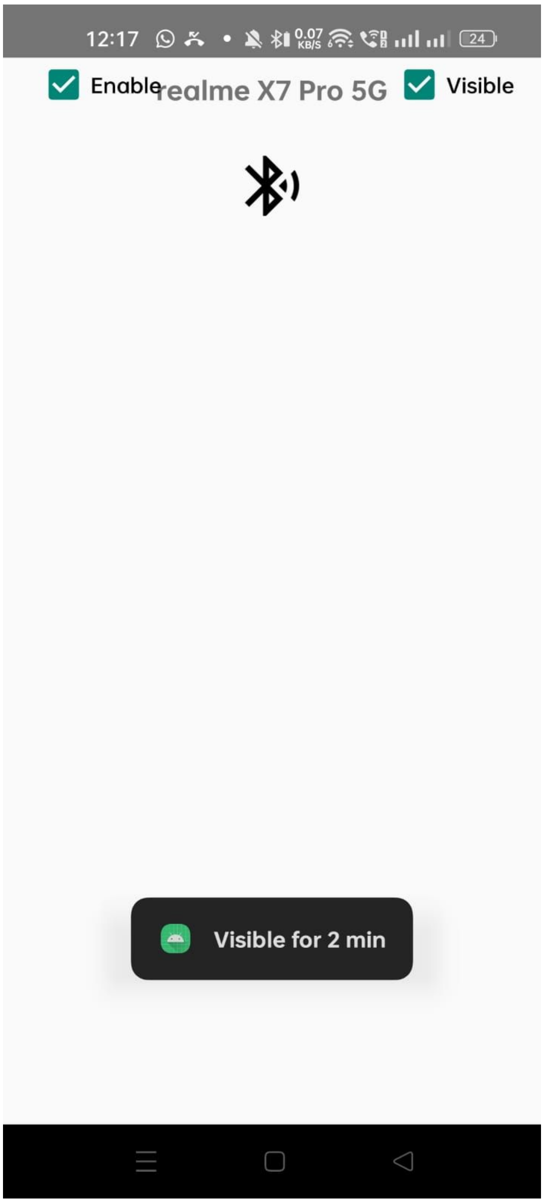
MainActivity.java

```java
package com.example.pract_9;


import android.annotation.SuppressLint;
import android.bluetooth.BluetoothAdapter;
import android.bluetooth.BluetoothDevice;
import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.content.IntentFilter;
import android.content.pm.PackageManager;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.ImageView;
import android.widget.ListView;

import android.widget.TextView;
import android.widget.Toast;

import androidx.annotation.RequiresApi;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;

import java.util.ArrayList;
import java.util.Set;

/**
 * This Activity lists any paired devices and
 * devices detected in the area after discovery. When a device is chosen
 * by the user, the MAC address of the device is sent back to the parent
 * Activity in the result Intent.
 */
public class MainActivity extends AppCompatActivity {


    CheckBox enable_bt, visible_bt;
    ImageView search_bt;
    TextView name_bt;
    ListView listView;

    private BluetoothAdapter
BA;
    private
Set<BluetoothDevice>
pairedDevices;


@SuppressLint("MissingInflat
edId")
    @Override
    protected void
onCreate(Bundle
savedInstanceState) {

super.onCreate(savedInstance
State);

setContentView(R.layout.acti
vity_main);

        enable_bt =
findViewById(R.id.enable_bt)
;
        visible_bt =
findViewById(R.id.visible_bt
);
        search_bt =
findViewById(R.id.search_bt)
;
        name_bt =
findViewById(R.id.name_bt);
        listView =
findViewById(R.id.list_view)
;


        BA =
BluetoothAdapter.getDefaultA
dapter();


name_bt.setText(getLocalBlue
toothName());

        if (BA == null) {

Toast.makeText(this,
"Bluetooth not supported",
Toast.LENGTH_SHORT).show();
            finish();
        }

        if (BA.isEnabled())
{

enable_bt.setChecked(true);
        }

enable_bt.setOnCheckedChange
Listener(new
CompoundButton.OnCheckedChan
geListener() {
            @Override
            public void
onCheckedChanged(CompoundBut
ton compoundButton, boolean
isChecked) {
                if
(!isChecked) {
                    if
(ActivityCompat.checkSelfPer
mission(MainActivity.this,
android.Manifest.permission.
BLUETOOTH_CONNECT) !=
PackageManager.PERMISSION_GR
ANTED) {

return;
                    }

BA.disable();

Toast.makeText(MainActivity.
this, "Turned off",
Toast.LENGTH_SHORT).show();
                } else {
                    Intent
intentOn = new
Intent(BluetoothAdapter.ACTI
ON_REQUEST_ENABLE);

startActivity(intentOn);

Toast.makeText(MainActivity.
this, "Turned On",
Toast.LENGTH_SHORT).show();
                }
            }
        });
        visible_bt.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton compoundButton, boolean isChecked) {
                if (isChecked) {
                    Intent getVisible = new Intent(BluetoothAdapter.ACTION_REQUEST_DISCOVERABLE);
                    if (ActivityCompat.checkSelfPermission(MainActivity.this, android.Manifest.permission.BLUETOOTH_ADVERTISE) != PackageManager.PERMISSION_GRANTED) {
                        // TODO: Consider calling
                        //    ActivityCompat#requestPermissions
                        // here to request the missing permissions, and then overriding
                        //   public void onRequestPermissionsResult(int requestCode, String[] permissions,
                        //                                          int[] grantResults)
                        // to handle the case where the user grants the permission. See the documentation
                        // for ActivityCompat#requestPermissions for more details.
                        return;
                    }
                    startActivity(getVisible);
                    Toast.makeText(MainActivity.this, "Visible for 2 min", Toast.LENGTH_SHORT).show();
                }
            }
        });


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

    }

    private void list() {
        if (ActivityCompat.checkSelfPermission(this, android.Manifest.permission.BLUETOOTH_CONNECT) != PackageManager.PERMISSION_GRANTED) {
            return;
        }

        ArrayList<String> list = new ArrayList<>();

        // First, add the names of all paired devices to the list
        pairedDevices = BA.getBondedDevices();
        for (BluetoothDevice bt : pairedDevices) {
            list.add(bt.getName() + "\n" + bt.getAddress() + " (Paired)");
        }

        // Next, discover nearby devices and add their names to the list
        BA.startDiscovery();
        IntentFilter filter
= new
IntentFilter(BluetoothDevice
.ACTION_FOUND);
        BroadcastReceiver
receiver = new
BroadcastReceiver() {
            @RequiresApi(api
= Build.VERSION_CODES.S)
            @Override
            public void
onReceive(Context context,
Intent intent) {
                String
action = intent.getAction();
                if
(BluetoothDevice.ACTION_FOUN
D.equals(action)) {

BluetoothDevice device =
intent.getParcelableExtra(Bl
uetoothDevice.EXTRA_DEVICE);
                    if
(!pairedDevices.contains(dev
ice)) {

ActivityCompat.checkSelfPerm
ission(MainActivity.this,
android.Manifest.permission.
BLUETOOTH_CONNECT);

list.add(device.getName() +
"\n" + device.getAddress());
                    }
                }
            }
        };

registerReceiver(receiver,
filter);

        Toast.makeText(this,
"Scanning for devices...",
Toast.LENGTH_SHORT).show();
        ArrayAdapter<String>
adapter = new
ArrayAdapter<>(this,
android.R.layout.simple_list
_item_1, list);
```

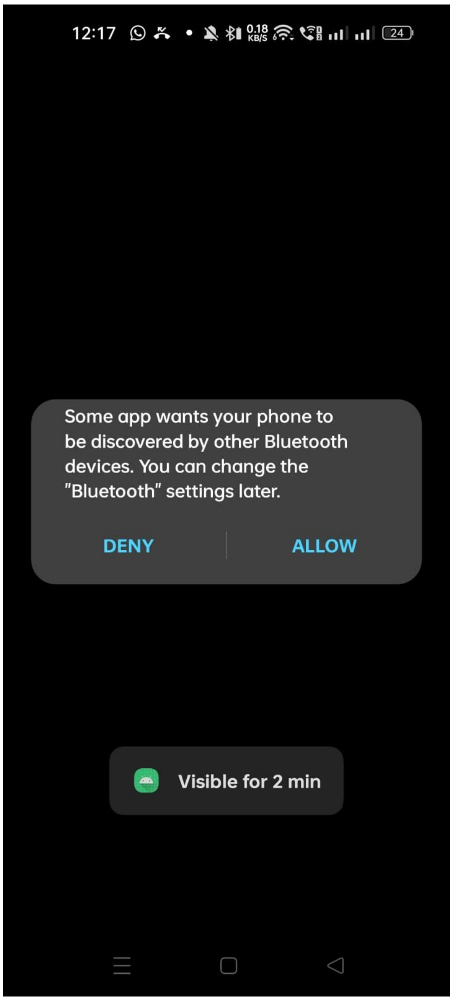
```
listView.setAdapter(adapter)
;
    }



@SuppressLint("HardwareIds")
    public String
getLocalBluetoothName() {
        if (BA == null) {
            BA =
BluetoothAdapter.getDefaultA
dapter();
        }
        if
(ActivityCompat.checkSelfPer
mission(this,
android.Manifest.permission.
BLUETOOTH_CONNECT) !=
PackageManager.PERMISSION_GR
ANTED) {
        }
        String name =
BA.getName();
        if(name == null){
            name =
BA.getAddress();
        }
        return name;
    }
}
```

OUTPUT



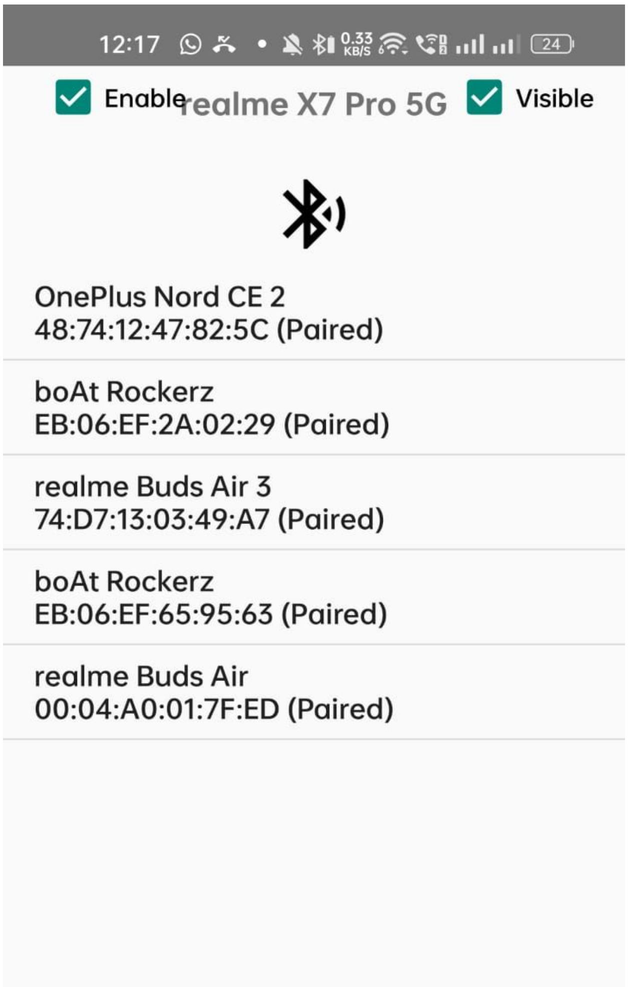


Visible for 2 min



Some app wants your phone to be discovered by other Bluetooth devices. You can change the "Bluetooth" settings later.

Visible for 2 min



OnePlus Nord CE 2
48:74:12:47:82:5C (Paired)

boAt Rockerz
EB:06:EF:2A:02:29 (Paired)

realme Buds Air 3
74:D7:13:03:49:A7 (Paired)

boAt Rockerz
EB:06:EF:65:95:63 (Paired)

realme Buds Air
00:04:A0:01:7F:ED (Paired)