**Practical no.-**24

**Title:** Develop a program for providing Bluetooth Connectivity.

**Roll No.:**15 **Batch-** A **Date of Performance:** 07/03/2024

**activity\_main.xml**

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

<AbsoluteLayout 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"

tools:context=".MainActivity">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_x="14dp"

android:layout\_y="31dp"

android:text="BLUETOOTH CONNECTIVITY"

android:textSize="25dp"

android:textStyle="bold" />

<Button

android:id="@+id/on"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_x="41dp"

android:layout\_y="148dp"

android:text="Turned On" />

<Button

android:id="@+id/off"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_x="207dp"

android:layout\_y="145dp"

android:text="Turned Off" />

<Button

android:id="@+id/visible"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_x="116dp"

android:layout\_y="221dp"

android:text="Make Visible" />

<Button

android:id="@+id/disc"

android:layout\_width="207dp"

android:layout\_height="wrap\_content"

android:layout\_x="82dp"

android:layout\_y="293dp"

android:text="List Devices" />

<ListView

android:id="@+id/lv"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_x="-5dp"

android:layout\_y="347dp" />

</AbsoluteLayout>

**MainActivity.java**

package com.example.pract\_24bluetooth;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.ActivityCompat;

import android.annotation.SuppressLint;

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 on, off, disc,visible;

BluetoothAdapter blue;

ListView lv;

@SuppressLint("MissingInflatedId")

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

on = (Button) findViewById(R.id.on);

off = (Button) findViewById(R.id.off);

disc = (Button) findViewById(R.id.disc);

visible = (Button) findViewById(R.id.visible);

lv=(ListView) findViewById(R.id.lv);

blue = BluetoothAdapter.getDefaultAdapter();

on.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (blue != null) {

if (!blue.isEnabled()) {

Intent on = new Intent(BluetoothAdapter.ACTION\_REQUEST\_ENABLE);

if (ActivityCompat.checkSelfPermission(MainActivity.this, android.Manifest.permission.BLUETOOTH\_CONNECT) != PackageManager.PERMISSION\_GRANTED) {

return;

}

startActivityForResult(on, 0);

Toast.makeText(MainActivity.this, "Bluetooth On....", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(MainActivity.this, "Bluetooth Already On....", Toast.LENGTH\_SHORT).show();

}

}

}

});

off.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (ActivityCompat.checkSelfPermission(MainActivity.this, android.Manifest.permission.BLUETOOTH\_CONNECT) != PackageManager.PERMISSION\_GRANTED) {

return;

}

if (blue.isEnabled()) {

{

blue.disable();

Toast.makeText(MainActivity.this,"Bluetooth Off....",Toast.LENGTH\_SHORT).show();

}

}

}

});

disc.setOnClickListener(new View.OnClickListener() {

@SuppressLint("MissingPermission")

@Override

public void onClick(View v) {

Intent discover=new Intent(BluetoothAdapter.ACTION\_REQUEST\_DISCOVERABLE);

startActivityForResult(discover,0);

Toast.makeText(MainActivity.this,"Searching for a new Device Started...",Toast.LENGTH\_SHORT).show();

Set<BluetoothDevice> paireddevice=blue.getBondedDevices();

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

if(paireddevice.size()>0)

{

for(BluetoothDevice device:paireddevice)

{

String devicename=device.getName();

String Mac\_Address=device.getAddress();

list.add("Name:"+devicename+" "+"Mac Address:"+Mac\_Address);

}

}

ArrayAdapter ad=new ArrayAdapter(MainActivity.this, androidx.appcompat.R.layout.support\_simple\_spinner\_dropdown\_item,list);

lv.setAdapter(ad);

}

});

visible.setOnClickListener(new View.OnClickListener() {

@SuppressLint("MissingPermission")

@Override

public void onClick(View v) {

Intent discoverableIntent = new Intent(BluetoothAdapter.ACTION\_REQUEST\_DISCOVERABLE);

discoverableIntent.putExtra(BluetoothAdapter.EXTRA\_DISCOVERABLE\_DURATION, 300); // 300 seconds

startActivity(discoverableIntent);

Toast.makeText(MainActivity.this, "Bluetooth visibility enabled for 300 seconds", Toast.LENGTH\_SHORT).show();

}

});

}

}

