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Practical No: 24

1. Write a program to turn on, get visible, list devices and turnoff Bluetooth with the help of following GUI.

Activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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:orientation="vertical"  
 android:transitionGroup="true">  
  
 <TextView  
 android:id="@+id/textview"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Bluetooth Example"  
 android:textSize="35dp"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="20dp" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Turn On"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="20dp"  
 android:clickable="true"  
 android:onClick="on" />  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Get visible"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="10dp"  
 android:onClick="visible" />  
  
 <Button  
 android:id="@+id/button3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="List devices"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="10dp"  
 android:onClick="list" />  
  
 <Button  
 android:id="@+id/button4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Turn off"  
 android:layout\_gravity="center\_horizontal"  
 android:layout\_marginTop="10dp"  
 android:onClick="off" />  
  
 <ListView  
 android:id="@+id/listView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp" />  
  
</LinearLayout>

MainActivity.java

package com.example.mad\_playground;  
import android.app.Activity;  
import android.bluetooth.BluetoothAdapter;  
import android.bluetooth.BluetoothDevice;  
  
import android.content.Intent;  
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 Activity {  
 Button b1,b2,b3,b4;  
 private BluetoothAdapter BA;  
 private Set<BluetoothDevice>pairedDevices;  
 ListView lv;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 b1 = (Button) findViewById(R.id.*button*);  
 b2=(Button)findViewById(R.id.*button2*);  
 b3=(Button)findViewById(R.id.*button3*);  
 b4=(Button)findViewById(R.id.*button4*);  
  
 BA = BluetoothAdapter.*getDefaultAdapter*();  
 lv = (ListView)findViewById(R.id.*listView*);  
 }  
  
 public void on(View v){  
 if (!BA.isEnabled()) {  
 Intent turnOn = new Intent(BluetoothAdapter.*ACTION\_REQUEST\_ENABLE*);  
 startActivityForResult(turnOn, 0);  
 Toast.*makeText*(getApplicationContext(), "Turned on",Toast.*LENGTH\_LONG*).show();  
 } else {  
 Toast.*makeText*(getApplicationContext(), "Already on", Toast.*LENGTH\_LONG*).show();  
 }  
 }  
  
 public void off(View v){  
 BA.disable();  
 Toast.*makeText*(getApplicationContext(), "Turned off" ,Toast.*LENGTH\_LONG*).show();  
 }  
  
  
 public void visible(View v){  
 Intent getVisible = new Intent(BluetoothAdapter.*ACTION\_REQUEST\_DISCOVERABLE*);  
 startActivityForResult(getVisible, 0);  
 }  
  
  
 public void list(View v){  
 pairedDevices = BA.getBondedDevices();  
  
 ArrayList list = new ArrayList();  
  
 for(BluetoothDevice bt : pairedDevices) list.add(bt.getName());  
 Toast.*makeText*(getApplicationContext(), "Showing Paired Devices",Toast.*LENGTH\_SHORT*).show();  
  
 final ArrayAdapter adapter = new ArrayAdapter(this,android.R.layout.*simple\_list\_item\_1*, list);  
  
 lv.setAdapter(adapter);  
 }  
}

Android Manifest.xml

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.example.mad\_playground">  
 <uses-permission android:name="android.permission.BLUETOOTH"/>  
 <uses-permission android:name="android.permission.BLUETOOTH\_ADMIN"/>  
  
 <application  
 android:allowBackup="true"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
>  
 <activity  
 android:name=".MainActivity"  
 android:exported="true">  
  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
  
 </activity>  
  
 </application>  
</manifest>

OUTPUT:

 

 