

Practical No 24

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

Code for activity_main.xml location layout folder

```
<? 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"
    tools:context=".MainActivity"
    android:orientation="vertical">
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/startBtn"
        android:onClick="startBluetooth"
        android:text="Start Bluetooth"
        android:layout_marginTop="50dp"
        android:layout_marginLeft="130dp"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/stopBtn"
        android:text="Stop Bluetooth"
        android:layout_marginTop="10dp"
        android:onClick="stopBluetooth"
        android:layout_marginLeft="130dp"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/discoverBtn"
        android:text="Discover Bluetooth"
        android:onClick="discoverBluetooth"
        android:layout_marginTop="10dp"
        android:layout_marginLeft="130dp"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/listBtn"
        android:text="List Bluetooth Devices"
        android:onClick="listBluetooth"
        android:layout_marginTop="10dp"
        android:layout_marginLeft="130dp"/>
    <ListView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/listDevices"/>
</LinearLayout>
```

Code for MainActivity.java file location java folder

```
public class MainActivity extends AppCompatActivity {
```



```

ListView list;
BluetoothAdapter ba;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    list = (ListView) findViewById(R.id.listDevices);
    ba = BluetoothAdapter.getDefaultAdapter();
}
public void startBluetooth(View v) {
    if(ba==null){
        Toast.makeText(MainActivity.this,
            "Bluetooth Not Supported",
            Toast.LENGTH_LONG).show();
    }
    else {
        if (!ba.isEnabled()) {
            Intent intent = new
Intent(BluetoothAdapter.ACTION_REQUEST_ENABLE);
            startActivityForResult(intent, 0);
        }
    }
}
public void stopBluetooth(View v) {
    ba.disable();
}
public void discoverBluetooth(View v) {
    if(!ba.isDiscovering()){
        Intent intent = new
Intent(BluetoothAdapter.ACTION_REQUEST_DISCOVERABLE);
        startActivityForResult(intent,0);
        Toast.makeText(MainActivity.this,
            "Bluetooth is discovering",
            Toast.LENGTH_LONG).show();
    }
}
public void listBluetooth(View v) {
    Set<BluetoothDevice> pairedDevices = ba.getBondedDevices();
    ArrayList<String> devices = new ArrayList<>();
    for(BluetoothDevice bt: pairedDevices){
        devices.add(bt.getName());
    }
    ArrayAdapter arrayAdapter = new ArrayAdapter(MainActivity.this,
        android.R.layout.simple_list_item_1,
        devices);
    list.setAdapter(arrayAdapter);
}

```

Code for AndroidManifest.xml

```

<uses-permission
    android:name="android.permission.BLUETOOTH"/>
    <uses-permission
    android:name="android.permission.BLUETOOTH_ADMIN"/>

```