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| **MainActivity.java**  package com.example.exp9\_bluetooth;  import androidx.activity.result.ActivityResult; import androidx.activity.result.ActivityResultCallback; import androidx.activity.result.ActivityResultLauncher; import androidx.activity.result.contract.ActivityResultContract; import androidx.activity.result.contract.ActivityResultContracts; import androidx.annotation.MainThread; import androidx.annotation.Nullable; import androidx.appcompat.app.AppCompatActivity; import androidx.core.app.ActivityCompat; import android.Manifest; 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.Button; import android.widget.ImageView; import android.widget.TextView; import android.widget.Toast; import java.util.Set;  public class MainActivity extends AppCompatActivity {  private static final int *REQUEST\_ENABLE\_BT* = 0;  private static final int *REQUEST\_DISCOVER\_BT* = 1;   ActivityResultLauncher<Intent> activityResultLauncher = registerForActivityResult(  new ActivityResultContracts.StartActivityForResult(), new ActivityResultCallback<ActivityResult>() {  @Override  public void onActivityResult(ActivityResult activityResult) {   }  }  );   TextView mStatusBlueTv, mPairedTv;  ImageView mBlueIv;  Button mOnBtn, mOffBtn, mDiscoverBtn, mPairedBtn;  BluetoothAdapter mBlueAdapter;   @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.*activity\_main*);   mStatusBlueTv = findViewById(R.id.*statusBlutoothTv*);  mPairedTv = findViewById(R.id.*pairedTv*);  mBlueIv = findViewById(R.id.*bluetoothIv*);  mOnBtn = findViewById(R.id.*OnBtn*);  mOffBtn = findViewById(R.id.*OffBtn*);  mDiscoverBtn = findViewById(R.id.*discoverableBtn*);  mPairedBtn = findViewById(R.id.*pairedBtn*);  mBlueAdapter = BluetoothAdapter.*getDefaultAdapter*();   if (mBlueAdapter == null) {  mStatusBlueTv.setText("Bluetooth is not available....!!");  } else {  mStatusBlueTv.setText("Bluetooth is available");  }  if (mBlueAdapter.isEnabled()) {  mBlueIv.setImageResource(R.drawable.*ic\_action\_on*);  } else {  mBlueIv.setImageResource(R.drawable.*ic\_action\_off*);  }  mOnBtn.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View view) {  if (!mBlueAdapter.isEnabled()) {  showToast("Turning On Bluetooth....");  Intent intent1 = new Intent(BluetoothAdapter.*ACTION\_REQUEST\_ENABLE*);  activityResultLauncher.launch(intent1);  } else {  showToast("Bluetooth is already on...");  }  }   });  mDiscoverBtn.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View view) {   if (ActivityCompat.*checkSelfPermission*(getApplicationContext(), Manifest.permission.*BLUETOOTH\_SCAN*) != PackageManager.*PERMISSION\_GRANTED*) {  return;  }  if (!mBlueAdapter.isDiscovering()) {  showToast("making device discoverable");  Intent intent = new Intent(BluetoothAdapter.*ACTION\_REQUEST\_DISCOVERABLE*);  activityResultLauncher.launch(intent);  }  }  });  mOffBtn.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View view) {   if (mBlueAdapter.isEnabled()) {  if (ActivityCompat.*checkSelfPermission*(getApplicationContext(), Manifest.permission.*BLUETOOTH\_CONNECT*) != PackageManager.*PERMISSION\_GRANTED*) {  return;  }  mBlueAdapter.disable();  showToast("Turning Bluetooth off....");  mBlueIv.setImageResource(R.drawable.*ic\_action\_off*);  } else {  showToast("Bluetooth is already off");  }   }  });  mPairedBtn.setOnClickListener(new View.OnClickListener() {  @Override  public void onClick(View view) {   if (mBlueAdapter.isEnabled()) {  mPairedTv.setText("Paired Devices");  if (ActivityCompat.*checkSelfPermission*(getApplicationContext(), Manifest.permission.*BLUETOOTH\_CONNECT*) != PackageManager.*PERMISSION\_GRANTED*) {  return;  }  Set<BluetoothDevice> devices = mBlueAdapter.getBondedDevices();  for(BluetoothDevice device: devices){  mPairedTv.append("\nDevices: "+device.getName()+","+device);  }  }  else{  showToast("Turn on bluetooth to get paired Devices");  }  }  });   }  @Override  protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {  switch(requestCode){  case *REQUEST\_ENABLE\_BT*:  if(resultCode==*RESULT\_OK*){  mBlueIv.setImageResource(R.drawable.*ic\_action\_on*);  showToast("Bluetooth is on");  }  else{  showToast("Couldn't on bluetooth...");  }  break;  }  super.onActivityResult(requestCode, resultCode, data);  }  private void showToast(String msg){  Toast.*makeText*(this, msg, Toast.*LENGTH\_SHORT*).show();  }  } | **activity\_main.xml**  <?xml version="1.0" encoding="utf-8"?> <LinearLayout 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"  android:layout\_gravity="center\_horizontal"  android:background="@color/white"  android:orientation="vertical"  tools:context=".MainActivity">   <TextView  android:id="@+id/statusBlutoothTv"  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content"  android:text=" "  android:textAlignment="center"  android:textColor="#000"  android:textSize="20sp" />   <ImageView  android:id="@+id/bluetoothIv"  android:layout\_width="100dp"  android:layout\_height="100dp"  android:layout\_gravity="center"  android:layout\_marginTop="100dp" />   <Button  android:id="@+id/OnBtn"  android:layout\_width="200dp"  android:layout\_height="50dp"  android:layout\_gravity="center"  android:layout\_marginTop="150dp"  android:backgroundTint="@color/design\_default\_color\_primary"  android:text="Turn On"  android:textColor="@color/white" />   <Button  android:id="@+id/OffBtn"  android:layout\_width="200dp"  android:layout\_height="50dp"  android:layout\_gravity="center"  android:backgroundTint="@color/design\_default\_color\_primary"  android:text="Turn Off"  android:textColor="@color/white" />   <Button  android:id="@+id/discoverableBtn"  android:layout\_width="200dp"  android:layout\_height="50dp"  android:layout\_gravity="center"  android:backgroundTint="@color/design\_default\_color\_primary"  android:text="Discoverable"  android:textColor="@color/white" />   <Button  android:id="@+id/pairedBtn"  android:layout\_width="200dp"  android:layout\_height="50dp"  android:layout\_gravity="center"  android:backgroundTint="@color/design\_default\_color\_primary"  android:text="Paired Devices"  android:textColor="@color/white" />   <TextView  android:id="@+id/pairedTv"  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content"  android:layout\_gravity="center"  android:gravity="center"  android:minWidth="200dp"  android:textColor="#fff" />   </LinearLayout>  **AndroidManifest.xml**  <?xml version="1.0" encoding="utf-8"?> <manifest xmlns:android="http://schemas.android.com/apk/res/android"  package="com.example.exp9\_bluetooth">   <uses-permission android:name="android.permission.BLUETOOTH"/>  <uses-permission android:name="android.permission.BLUETOOTH\_ADMIN"/>  <uses-permission android:name="android.permission.BLUETOOTH\_CONNECT" />   <uses-permission android:name="android.permission.BLUETOOTH\_SCAN" />   <uses-permission android:name="android.permission.BLUETOOTH\_SCAN" />   <application  android:allowBackup="true"  android:icon="@mipmap/ic\_launcher"  android:label="@string/app\_name"  android:roundIcon="@mipmap/ic\_launcher\_round"  android:supportsRtl="true"  android:theme="@style/Theme.Exp9\_Bluetooth">  <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>  **strings.xml**  <resources>  <string name="app\_name">BT</string> </resources>  **themes.xml**  <resources xmlns:tools="http://schemas.android.com/tools">  <!-- Base application theme. -->  <style name="Theme.Exp9\_Bluetooth" parent="Theme.MaterialComponents.DayNight.DarkActionBar">  <!-- Primary brand color. -->  <item name="colorPrimary">@color/purple\_500</item>  <item name="colorPrimaryVariant">@color/purple\_700</item>  <item name="colorOnPrimary">@color/white</item>  <!-- Secondary brand color. -->  <item name="colorSecondary">@color/teal\_200</item>  <item name="colorSecondaryVariant">@color/teal\_700</item>  <item name="colorOnSecondary">@color/black</item>  <!-- Status bar color. -->  <item name="android:statusBarColor" tools:targetApi="l">?attr/colorPrimaryVariant</item>  <!-- Customize your theme here. -->  </style> </resources>  **colors.xml**  <?xml version="1.0" encoding="utf-8"?> <resources>  <color name="purple\_200">#FFBB86FC</color>  <color name="purple\_500">#FF6200EE</color>  <color name="purple\_700">#FF3700B3</color>  <color name="teal\_200">#FF03DAC5</color>  <color name="teal\_700">#FF018786</color>  <color name="black">#FF000000</color>  <color name="white">#FFFFFFFF</color> </resources> |

**Output:-**