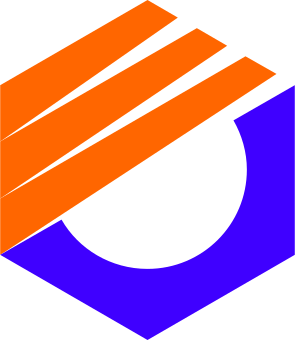
**LAPORAN TUGAS PERTEMUAN 2**

**“P**



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Kelas 2B

**D3 TEKNIK INFORMATIKA**

**JURUSAN TEKNIK KOMPUTER DAN INFORMATIKA**

**POLITEKNIK NEGERI BANDUNG**

**2021**

**Tugas Pertemuan 2**

1. **ActivityLifeCycle**

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| --- | --- | --- |
| **Tugas** | **Screanshoot** | **Analisa** |
| Implementasi Activity Life cycle |  | **onCreate()**  Method onCreate() terjadi ketika program atau aplikasi pertama kali dibuat atau diinstal, bersamaan setelah method ini adalah onStart(). |
|  |  | **onStart()**  Method ini terjadi ketika aplikasi pertama dibuka, bersamaan setelah itu terjadi method onResume() |
|  |  | **onResume()**  Method ini terjadi ketika terjadi aktifitas di layar aplikasi dengan pengguna. |
|  |  | **onPause()**  Method ini terjadi ketika aplikasi mengalami pemberhentian sementara dikarenakan adanya perpindahan, namun aplikasi masih berjalan. |
|  |  | **onStop()**  Method ini terjadi ketika pengguna telah keluar dari aplikasi. |
|  |  | **onRestart()**  Method ini terjadi ketika aplikasi yang telah diberhentikan Kembali dibuka, method ini diikuti dengan method onStart(). |
|  |  | **onDestroy()**  Method ini terjadi ketika aplikasi telah keluar, hal ini dilakukan kerena system sudah selesai atau karena system menghemat ruang. |
| **Open Apps > Close Apps (Back button) > Open Apps** |  | Open Apps - onCreate invoked, onStart invoked, onResume invoked.  Close Apps - onPause invoked, onStop invoked, onDestroy invoked  Open Apps - onCreate invoked, onStart invoked, onResume invoked |
| **Open Apps > Minimize Apps > Open Apps > Close Apps (Back button)** |  | Open Apps - onCreate invoked, onStart invoked, onResume invoked.  Minimize Apps - onPause invoked, onStop invoked  Open Apps - onRestart invoked, onStart invoked, onResume invoked.  Close Apps - onPause invoked, onStop invoked, onDestroy invoked |
| **Open Apps > Switch to Another Apps > Open Apps > Close Apps (Back button)** |  | Open Apps - onCreate invoked, onStart invoked, onResume invoked.  Switch to Another Apps - onPause invoked, onStop invoked  Open Apps - onRestart invoked, onStart invoked, onResume invoked.  Close Apps - onPause invoked, onStop invoked, onDestroy invoked |
| **Open Apps > Rotate Apps** |  | Open Apps - onCreate invoked, onStart invoked, onResume invoked.  Rotate Apps - onPause invoked, onStop invoked, onDestroy invoked, onCreate invoked,  onStart invoked, onResume invoked. |
| **Open Apps > Lock/off Screen > Unlock/ on Screen** |  | Open Apps - onCreate invoked, onStart invoked, onResume invoked.  Lock/off Screen - onPause invoked, onStop invoked  Unlock/on Screen - onRestart invoked, onStart invoked, onResume invoked. |

**Source Code**

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| package com.example.myapplication  import android.support.v7.app.AppCompatActivity import android.os.Bundle import android.util.Log import android.widget.TextView import android.widget.Toast  class MainActivity : AppCompatActivity() {  private lateinit var mainTV: TextView  override fun onCreate(savedInstanceState: Bundle?) {  super.onCreate(savedInstanceState)  setContentView(R.layout.*activity\_main*)   Log.d("lifecycle", "onCreate invoked");  Toast.makeText(this, "onCreate invoked", Toast.*LENGTH\_SHORT*).show();  mainTV = findViewById(R.id.*main\_tv*)  mainTV.*text* = "onCreate"  }   override fun onStart() {  super.onStart()  Log.d("lifecycle", "onStart invoked");  Toast.makeText(this, "onStart invoked", Toast.*LENGTH\_SHORT*).show();  mainTV.append("\nOnStart")  }   override fun onResume() {  super.onResume()  Log.d("lifecycle", "onResume invoked");  Toast.makeText(this, "onResume invoked", Toast.*LENGTH\_SHORT*).show();  mainTV.append("\nOnResume")  }   override fun onPause() {  super.onPause()  Log.d("lifecycle", "onPause invoked");  Toast.makeText(this, "onPause invoked", Toast.*LENGTH\_SHORT*).show();  mainTV.append("\nOnPause")  }   override fun onStop() {  super.onStop()  Log.d("lifecycle", "onStop invoked");  Toast.makeText(this, "onStop invoked", Toast.*LENGTH\_SHORT*).show();  mainTV.append("\nOnStop")  }   override fun onRestart() {  super.onRestart()  Log.d("lifecycle", "onRestart invoked");  Toast.makeText(this, "onRestart invoked", Toast.*LENGTH\_SHORT*).show();  mainTV.append("\nOnRestart")  }   override fun onDestroy() {  super.onDestroy()  Log.d("lifecycle", "onDestroy invoked");  Toast.makeText(this, "onDestroy invoked", Toast.*LENGTH\_SHORT*).show();  mainTV.append("\nOnDestroy")  } } |

1. **Home Fan**

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| --- | --- | --- |
| Tugas | Screenshoot | Analisa |
| Melakukan run aplikasi Home Fan |  | Aplikasi home Fan ketika dijalankan akan menampilkan gambar seperti berikut. Ketika button di tekan maka akan berubah menjadi “nyala” ketika menyala kita dapat mengubah speed dari kipas.  0 -> kipas berhenti atau off  1000 -> kipas berputar dengan kecepatan pelan  3000 -> kipas berputar dengan kecepatan sedang  5000 -> kipas berputar dengan sangat cepat |
|  |  | Ketika kita menekan switch button light maka pada latar belakang dari kipas akan menampilkan cahaya warna kuning. Hal ini bisa terjadi selagi kipas berputar juga |

**Source Code**

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| --- |
| mainActivity  package com.example.homefan;  import androidx.appcompat.app.AppCompatActivity;  import android.animation.\*; import android.graphics.Color; import android.graphics.drawable.GradientDrawable; import android.os.Bundle; import android.view.animation.LinearInterpolator; import android.widget.\*;  public class MainActivity extends AppCompatActivity {   ToggleButton toggleButton;  ImageView imageView;  ObjectAnimator rotateAnimator;  Switch switchButton;  SeekBar seekBar;  final int SPEED[] = {0, 5000, 3000, 1000};  GradientDrawable gd = new GradientDrawable();   @Override  protected void onCreate(Bundle savedInstanceState) {  super.onCreate(savedInstanceState);  setContentView(R.layout.*activity\_main*);   switchButton = findViewById(R.id.*switchButton*);  imageView = (ImageView) findViewById(R.id.*imageView*);  toggleButton = findViewById(R.id.*toggleButton*);  seekBar = findViewById(R.id.*seekBar*);   rotateAnimator=ObjectAnimator.*ofFloat*(imageView, "rotation", 0,360);  rotateAnimator.setDuration(1000);  rotateAnimator.setRepeatCount(ValueAnimator.*INFINITE*);  rotateAnimator.setInterpolator(new LinearInterpolator());   toggleButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {  @Override  public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {  if(isChecked) {  rotateAnimator.setDuration(SPEED[seekBar.getProgress()]);  rotateAnimator.start();  }  else {  rotateAnimator.end();  }  }  });   gd.setShape(GradientDrawable.*RECTANGLE*);  gd.setGradientType(GradientDrawable.*RADIAL\_GRADIENT*);  gd.setGradientRadius(330);   switchButton.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener(){  @Override  public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {  if(isChecked){  gd.setColors(new int[]{ Color.*YELLOW* , Color.*TRANSPARENT* });  imageView.setBackground(gd);  }  else{  imageView.setBackgroundColor(Color.*TRANSPARENT*);  }  }  });   seekBar.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {  @Override  public void onProgressChanged(SeekBar seekBar, int progress, boolean fromUser) {  if(toggleButton.isChecked()){  rotateAnimator.setDuration(SPEED[progress]);  rotateAnimator.start();  }  }  @Override  public void onStartTrackingTouch(SeekBar seekBar) {  }  @Override  public void onStopTrackingTouch(SeekBar seekBar) {  }  });  } } |

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| Activity\_main.xml  <?xml version="1.0" encoding="utf-8"?> <androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/textView1"  android:layout\_width="200dp"  android:layout\_height="30dp"  android:layout\_marginTop="16dp"  android:text="Speed Controller"  android:textAllCaps="true"  android:textSize="20sp"  android:textStyle="normal"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.499"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="parent" />  <ToggleButton  android:id="@+id/toggleButton"  android:layout\_width="0dp"  android:layout\_height="48dp"  android:layout\_marginStart="48dp"  android:layout\_marginLeft="48dp"  android:layout\_marginTop="16dp"  android:text="OFF"  app:layout\_constraintEnd\_toStartOf="@+id/switchButton"  app:layout\_constraintHorizontal\_bias="0.5"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/textView1" />  <Switch  android:id="@+id/switchButton"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:layout\_marginStart="16dp"  android:layout\_marginLeft="16dp"  android:layout\_marginEnd="48dp"  android:layout\_marginRight="48dp"  android:text="LIGHTS"  app:layout\_constraintBaseline\_toBaselineOf="@+id/toggleButton"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.5"  app:layout\_constraintStart\_toEndOf="@+id/toggleButton" />  <SeekBar  android:id="@+id/seekBar"  android:layout\_width="0dp"  android:layout\_height="wrap\_content"  android:layout\_marginStart="32dp"  android:layout\_marginLeft="32dp"  android:layout\_marginTop="20dp"  android:layout\_marginEnd="48dp"  android:layout\_marginRight="48dp"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.0"  app:layout\_constraintStart\_toEndOf="@+id/textView2"  app:layout\_constraintTop\_toBottomOf="@+id/toggleButton" />  <TextView  android:id="@+id/textView2"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:layout\_marginStart="48dp"  android:layout\_marginLeft="48dp"  android:layout\_marginTop="16dp"  android:text="SPEED"  android:textSize="18sp"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/toggleButton" />   <ImageView  android:id="@+id/imageView"  android:layout\_width="310dp"  android:layout\_height="200dp"  android:layout\_marginTop="160dp"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintHorizontal\_bias="0.524"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/seekBar"  app:srcCompat="@drawable/whatsapp\_image\_2022\_02\_21\_at\_20\_28\_36" />  </androidx.constraintlayout.widget.ConstraintLayout> |

**Link Git hub**

<https://github.com/novakensa29/Mobile-Programming-Android.git>