package StopWatchKu;

import javax.swing.\*;

public class Komponen extends JFrame{

JLabel label1 = new JLabel("Stopwatch : ");

JLabel label2 = new JLabel("Split :");

JLabel label3 = new JLabel("Laps");

JLabel time1 = new JLabel();

JLabel time2 = new JLabel();

JButton start = new JButton("Start");

JButton split = new JButton("Split");

JButton reset = new JButton("Reset");

JButton lap = new JButton("Lap");

String timex = "00:00:00";

JTextPane text = new JTextPane();

protected int i=0;

protected Thread t;

protected int hcnt=0,mcnt=0,scnt=0;

protected String nstr="",mstr="",dstr="",err="", ooo="";

protected int cnt=0,cnt2=0;

}

Keterangan Source Code :

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package StopWatchKu;

import java.awt.Color;

import java.awt.event.\*;

import javax.swing.\*;

import java.lang.Runnable;

import java.io.IOException;

public class WatchProses extends Komponen implements Runnable{

public WatchProses(){

t = new Thread(this);

reset();

}

protected void reset(){

hcnt=0;mcnt=0;scnt=0;cnt2=0;

nstr="00:00:00";mstr="00:00:00";dstr="";

display(); }

protected void display(){

time1.setText(nstr); }

protected void setTimeCounter(){

nstr="";

if(hcnt<10){

nstr="0" + hcnt;

}else{

nstr="" + hcnt;

}

if(mcnt<10){

nstr+=":0" + mcnt;

}else{

nstr+=":" + mcnt;

}

if(scnt<10){

nstr+=":0" + scnt;

}else{

nstr+=":" + scnt;

} }

protected void setMTimeCounter(){

dstr+=time1.getText();

time2.setText(dstr);

}

public void run(){

try{

while(true){

scnt++;

if(scnt>59){

scnt=0;

mcnt++;

}

if(mcnt>59){

mcnt=0;

hcnt++;

}

if(hcnt>99){

reset();

}

setTimeCounter();

display();

Thread.sleep(16);

}

}catch(Exception e){

System.out.println(); } }

protected void printToList(){

cnt2++;

char []hr = new char [2];

char []mn = new char [2];

char []sec = new char [2];

int counter = 0;

for (int a = 0 ; a<time1.getText().length();a++)

{

if(time1.getText().charAt(a)==':')

{

if(counter==0)

{

hr[0] =time1.getText().charAt(a-2);

hr[1] =time1.getText().charAt(a-1);

counter++;

}

else if (counter==1) {

mn[0] =time1.getText().charAt(a-2);

mn[1] =time1.getText().charAt(a-1);

sec[0] =time1.getText().charAt(a+1);

sec[1] =time1.getText().charAt(a+2);

counter++; }

}

}

int hour = Integer.parseInt(new String(hr));

int minute = Integer.parseInt(new String(mn));

int second = Integer.parseInt(new String(sec));

counter = 0;

for (int a = 0 ; a<timex.length();a++)

{

if(timex.charAt(a)==':')

{

if(counter==0)

{

hr[0] =timex.charAt(a-2);

hr[1] =timex.charAt(a-1);

counter++;

}

else if (counter==1)

{

mn[0] =timex.charAt(a-2);

mn[1] =timex.charAt(a-1);

sec[0] =timex.charAt(a+1);

sec[1] =timex.charAt(a+2);

counter++; } } }

int hour2 = Integer.parseInt(new String(hr));

int minute2 = Integer.parseInt(new String(mn));

int second2 = Integer.parseInt(new String(sec));

int hour3 = hour - hour2;

int minute3 = minute - minute2;

int second3 = second -second2;

if (second3 <0)

{

second3 = 60 +second3;

minute3--;

}

if (minute3 <0)

{

minute3 = 60 +minute3;

hour3--; }

if(second3%2 == 0){

ooo = "Genap";

}else{

ooo="Ganjil"; }

dstr+="Lap " + cnt2 + " - Elapsed Time : " + time1.getText() + " - Lap Time : " + (hour3+":"+minute3+":"+second3) + " " + ooo + "\n";

text.setText(dstr); }

protected void errore(){

err += " KLIK START UNTUK MEMULAI. \n";

text.setText(err);

text.setForeground(new Color(255, 247, 33));

}

public void Stopwatch(){

label1.setBounds(10, 10, 100, 20);

label2.setBounds(10, 40, 100, 20);

label3.setBounds(10, 100, 100, 20);

time1.setBounds(120, 10, 100, 20);

time1.setForeground(Color.BLUE);

time2.setBounds(120, 40, 100, 20);

start.setBackground(Color.GREEN);

start.setBounds(420, 10, 150, 30);

split.setBackground(new Color(43, 212, 255));

split.setBounds(420, 40, 150, 30);

reset.setBackground(Color.RED);

reset.setBounds(420, 70, 150, 30);

reset.setForeground(Color.WHITE);

lap.setBackground(Color.YELLOW);

lap.setBounds(420, 100, 150, 30);

text.setBounds(10, 140, 562, 200 );

text.setBackground(new Color(91, 0, 13));

start.addActionListener(new ActionListener(){

public void actionPerformed(ActionEvent e){

if(start.getText().equals("Start") || start.getText().equals("Resume")){

start.setText("Pause");

cnt++;

if(cnt==1){

t.start();

}else{

t.resume();

}

}else{

start.setText("Resume");

t.suspend();

text.setForeground(Color.WHITE);

} } });

split.addActionListener(new ActionListener(){

public void actionPerformed(ActionEvent e){

try{

time2.setText(time1.getText());

//System.out.println(time2.getText());

CheckError();

}catch(Exception ex){

errore();

} }

});

reset.addActionListener(new ActionListener(){

public void actionPerformed(ActionEvent e){

reset();

t.suspend();

start.setText("Start");

time2.setText("");

text.setText(""); } });

lap.addActionListener(new ActionListener(){

public void actionPerformed(ActionEvent e){

try{

printToList();

timex = time1.getText();

text.setForeground(Color.WHITE);

CheckError();

}catch(Exception ex){

errore(); } } });

add(label1);

add(label2);

add(label3);

add(time1);

add(time2);

add(start);

add(split);

add(reset);

add(lap);

add(text);

setTitle("Stopwatch Canggih - By : Wafi Dzulkarnain");

setSize(600, 400);

setLayout(null);

setLocationRelativeTo(null);

setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

setVisible(true);

}

protected void CheckError() throws IOException{

if(time1.getText().equals("00:00:00")){

throw new IOException();

}

}

}

Keterangan Source Code :

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package Stopwatch;

import StopWatchKu.WatchProses;

public class StopwatchCanggih {

public static void main(String args[]){

WatchProses pro = new WatchProses();

pro.Stopwatch();

}

}

Keterangan Source Code :

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