**TITLE**

# Team Members :

1. En.no. :- 180303105066 Name :- Garvin Dholakiya

2. En.no. :-180303105103 Name :-Bhrugu jani

**Code :**

 **Main.java**

public class Main {

public static void main(String[] args) {

Stopwatch stopwatch = new Stopwatch();

}

}

** Stopwatch.java**

import java.awt.\*;

import java.awt.event.\*;

import javax.swing.\*;

public class Stopwatch implements ActionListener{

JFrame frame = new JFrame();

JButton startButton = new JButton("START");

JButton resetButton = new JButton("RESET");

JLabel timeLabel = new JLabel();

int elapsedTime =0;

int seconds =0;

int minutes =0;

int hours =0;

boolean started = false;

String seconds\_string = String.format("%02d", seconds);

String minutes\_string = String.format("%02d", minutes);

String hours\_string = String.format("%02d", hours);

Timer timer = new Timer(1000, new ActionListener() {

public void actionPerformed(ActionEvent e) {

elapsedTime=elapsedTime+1000;

hours = (elapsedTime/3600000);

minutes = (elapsedTime/60000) % 60;

seconds = (elapsedTime/1000) % 60;

seconds\_string = String.format("%02d", seconds);

minutes\_string = String.format("%02d", minutes);

hours\_string = String.format("%02d", hours);

timeLabel.setText(hours\_string+":"+minutes\_string+":"+seconds\_string);

}

});

Stopwatch(){

timeLabel.setText(hours\_string+":"+minutes\_string+":"+seconds\_string);

timeLabel.setBounds(100,100,200,100);

timeLabel.setFont(new Font("Verdana",Font.PLAIN,35));

timeLabel.setBorder(BorderFactory.createBevelBorder(1));

timeLabel.setOpaque(true);

timeLabel.setHorizontalAlignment(JTextField.CENTER);

startButton.setBounds(100,200,100,50);

startButton.setFont(new Font("Ink Free",Font.PLAIN,20));

startButton.setFocusable(false);

startButton.addActionListener(this);

resetButton.setBounds(200,200,100,50);

resetButton.setFont(new Font("Ink Free",Font.PLAIN,20));

resetButton.setFocusable(false);

resetButton.addActionListener(this);

frame.add(startButton);

frame.add(resetButton);

frame.add(timeLabel);

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setSize(420,420);

frame.setLayout(null);

frame.setVisible(true);

}

@Override

public void actionPerformed(ActionEvent e) {

if(e.getSource()==startButton) {

if(started==false) {

started=true;

startButton.setText("STOP");

start();

}

else {

started=false;

startButton.setText("START");

stop();

}

}

if(e.getSource()==resetButton) {

started=false;

startButton.setText("START");

reset();

}

}

void start() {

timer.start();

}

void stop() {

timer.stop();

}

void reset() {

timer.stop();

elapsedTime=0;

seconds =0;

minutes=0;

hours=0;

seconds\_string = String.format("%02d", seconds);

minutes\_string = String.format("%02d", minutes);

hours\_string = String.format("%02d", hours);

timeLabel.setText(hours\_string+":"+minutes\_string+":"+seconds\_string);

}

}

# Output :

