

Lab 14

Create a new Eclipse project named **YourStudentId_Lab14**.

1. Create a class named **MyTimer** and implement the **main** method based on the following instructions.

2. Import following classes to **MyTimer**

```
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.Timer;
import javax.swing.JButton;
import javax.swing.JFrame;
```

3. Declare the following variables as private static attributes:

Modifier and type	Method (or Variable) and description
final int	FRAME_WIDTH The width of the frame. (width = 100)
final int	FRAME_HEIGHT The height of the frame. (height = 60)
int	timeCount Counts elapsed time. Set default value as 0.
Timer	timer The timer object.

4. Implement two ActionListeners, **TimerListener** and **ClickListener**, as inner classes.

- **TimeListener**
Updates elapsed time count (+5) and prints elapsed time in the console.
- **ClickListener**
Prints a message “Timer started!” in the console and starts the timer.

5. Instantiate a JFrame object named `frame`.

6. Instantiate a JButton object named `button` and set text “Start Timer” by using the constructor.

7. Add `button` to `frame`.

8. Instantiate `timer` object with time interval 5000 milliseconds and assign `TimerListener` to it.

9. Assign `ClickListener` to `button`.

10. Set `frame`’s width as `FRAME_WIDTH` and height as `FRAME_HEIGHT`.

11. Set `frame`’s default closed operation as `JFrame.EXIT_ON_CLOSE`.

12. Set `frame` visible.

API Reference

Constructor and Description	
Timer(int delay, ActionListener listener)	Creates a Timer and initializes both the initial delay and between-event delay to delay milliseconds.
JButton(String text)	Creates a button with text.

Modifier and Type	Method and Description
Component	add(Component comp) Appends the specified component to the end of this container.
void	addActionListener(ActionListener l) Adds an ActionListener to the button.

Submission: Submit your project as “zip (or rar) file” via WM5. No other submissions will be graded.

Reminder: Please zip **the whole project**

Deadline: Tomorrow’s midnight (for both Mon56 and Tue23)