Lab 4

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2.1 File List

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Class Documentation

3.1 Timer Class Reference

Public Member Functions

- void start () throw (runtime_error)
- void stop () throw (logic_error)
- double getElapsedTime () const throw (logic_error)

3.1.1 Member Function Documentation

3.1.1.1 double Timer::getElapsedTime ( ) const throw (logic_error)

getElapsedTime assigns the double value timeE with correct sum of duration's contents and returns it

Postcondition

> TimeE is set to the adjusted seconds in duration added to the microseconds

Exceptions

If	timerEnded is false, throw a logic error and notify the user

Returns

> A double value of the elapsed time

3.1.1.2 void Timer::start ( ) throw (runtime_error)

start assigns, using the function gettimeofday a value to beginTime, then assigns the timerWasStarted to true

Postcondition

BeginTime is set using gettimeofday and timerWasStarted is set accurately

Exceptions

If	the microseconds of begin time do not get set correctly, throw a runtime error and notify the user

Returns

N/A the functions void

3.1.1.3 void Timer::stop ( ) throw (logic_error)

stop assigns, using the function gettimeofday a value to duration, subtracts the values of duration with the \ values of beginTime then assigns the timerEnded to true

Postcondition

Durarion is set using gettimeofday and subtraction and timerEnded is set accurately

Exceptions

If	timerwasStarted is false, throw a logic error and notify the user

Returns

N/A the functions void

The documentation for this class was generated from the following files:

- Timer.h
- Timer.cpp

Chapter 4

File Documentation

4.1 Timer.cpp File Reference

This class can be instantiated in order to time operations. It consists of three functions: a start(), a stop(), and a getElapsed(). It throws logic errors and notifies user if any foul data manipulation is attempted.

```
#include "Timer.h"
```

4.1.1 Detailed Description

This class can be instantiated in order to time operations. It consists of three functions: a start(), a stop(), and a getElapsed(). It throws logic errors and notifies user if any foul data manipulation is attempted.

Author

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Version

Original Code 1.00 (02/18/2014)

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4.2 Timer.h File Reference

```
#include "sys/time.h" #include <stdexcept> #include <iostream> ×
#include "Timer.cpp"
```

Classes

- class Timer

4.2.1 Detailed Description

Author

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