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//////////////////////HEADER FILE////////////////////////////////////////

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Class: CSC 223-100

Professor: Jeffrey Howard

Due Date: 11/16/2017

Page & Problem #: Page 278, #4

Description: This is the actual Source File. This program, counts the total amount of time passed since January 1st, 1970.

Then calculates the amount of hours,minutes,and seconds

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include "stdafx.h"

#include "time.h"

#include <iostream>

using namespace std;

int main()

{

//Get time

time\_t t = time(0);

//Declare objects of time

Time time;

Time time2;

//Calculate time

time.setTime(t);

//Output Time in Milliseconds,Hours,Minutes,Seconds

cout << "Milliseconds: " << t << endl;

cout << "Hours: " << time.getHour() << endl;

cout << "Minutes: " << time.getMinute() << endl;

cout << "Seconds: " << time.getSecond() << endl;

return 0;

}

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//////////////////////MAIN-FILE////////////////////////////////////////

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Due Date: 11/16/2017

Page & Problem #: N/A

Description: This is the header file

\*/

#pragma once

#include <iostream>

#include <ctime>

using namespace std;

class Time

{

private:

//Declare variables

int hour;

int minute;

int seconds;

int miliseconds;

public:

//Constructors

Time();

Time(int milli);

Time(int hourParam, int minParam, int secondParam);

//Local member-functions

int getHour();

int getMinute();

int getSecond();

void setHour(int hourParam);

void setMinute(int minParam);

void setSecond(int secondParam);

void setTime(long elapseTime);

friend ostream& operator<<(ostream & outputStream, Time& time);

friend istream& operator >> (istream & inputStream, Time& time);

};

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//////////////////////IMPLEMENTATION-FILE////////////////////////////////////////

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Professor: Jeffrey Howard

Due Date: 11/16/2017

Page & Problem #: N/A

Description: This is the Implentation File

\*/

#include "time.h"

//no-arg constructor that creates a Time object for the current time

Time::Time()

{

time\_t t = time(0);

}

//Constructor That constructs a Time object with a specified elapsed time since midight, January 1, 1970, in milliseconds

Time::Time(int milli)

{

time\_t t = time(0);

hour = (milli / (1000 \* 60 \* 60)) % 24;

minute = (milli / (1000 \* 60)) % 60;

seconds = (milli / (1000)) % 60;

}

//Constructor that constructs a time object with the specified hour,minute,second

Time::Time(int hourParam, int minuteParam, int secondsParam)

{

time\_t t = time(0);

hour = hourParam;

minute = minuteParam;

seconds = secondsParam;

}

void Time::setHour(int hourParam)

{

hour = hourParam;

}

void Time::setMinute(int minParam)

{

minute = minParam;

}

void Time::setSecond(int secondParam)

{

seconds = secondParam;

}

//Get method for hour

int Time::getHour()

{

return hour;

}

//Get method for minute

int Time::getMinute()

{

return minute;

}

//Get method for second

int Time::getSecond()

{

return seconds;

}

//Constructor that calculates time in Hours,Minutes,Seconds

void Time::setTime(long elapseTime)

{

hour = (elapseTime / (1000 \* 60 \* 60)) % 24;

minute = (elapseTime / (1000 \* 60)) % 60;

seconds = (elapseTime / (1000)) % 60;

}

//overloading operator to use <<

ostream& operator<<(ostream & outputStream, Time& time)

{

return outputStream;

}

//overloading operator to use >>

istream& operator >> (istream & inputStream, Time& time)

{

return inputStream;

}