

Not Just One-Dimensional

LAB 2

SECTION C

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SUBMISSION DATE:

9/8/2017

Problem

The problem in this lab was to code 4 programs. The first two needed to print static message while the second 2 used user input to display a value. Program 3 calculated area of a rectangle based on user input while the 4th calculated volume for a rectangular prism.

Analysis

This was a simple lab meant to display our understanding of the printf and scanf functions and to get us more used to the process of coding.

Design

The design on each of the programs is rather simple as they did not require any complex mathematics or decision trees. The second and third programs did require allowing for user input which did require more complicated styling in the source code to enhance readability.

Testing

My testing was limited to making sure the programs compiled and ran correctly. I didn't encounter any errors in the creation of these two rather simple programs.

Comments

This lab didn't require much time, planning, or testing but is a good showcase for an understanding of the basics of the class.

Source Code

```
/******  
/****** CPRE 185 - Lab 2 *****  
/******  
/****** Author – Kenny Jacobson *****  
/****** Lab section – C *****  
/****** Date started – 9/8/2017 *****  
/****** Comments – Print name, class, date *****  
/******  
  
#include <stdio.h>  
  
int main(int argc, char* argv[]){  
    printf("Kenneth A. Jacobson\nCprE 185\n8.9.2017\n");  
    return 0;  
}
```

```
/******  
/****** CPRE 185 - Lab 2 *****  
/******  
/****** Author – Kenny Jacobson *****  
/****** Lab section – C *****  
/****** Date started – 9/8/2017 *****  
/** Comments – Area calculator w/ user input **/  
/******
```

```
#include <stdio.h>
```

```
int main(int argc, char* argv){  
    int w,h;  
    printf("Enter a width value: ");  
        scanf("%d", &w);  
    printf("\nEnter a height value: ");  
        scanf("%d", &h);  
    printf("\nA %d by %d rectangle's area is %d.\n",w,h,w*h);  
    return 0;  
}
```

```
/* **** */
/* **** CPRE 185 - Lab 2 **** */
/* **** */
/* **** Author – Kenny Jacobson **** */
/* **** Lab section – C **** */
/* **** Date started – 9/8/2017 **** */
/* ** Comments – Area calculator w/ user input ** */
/* **** */
```

```
#include <stdio.h>
```

```
int main(int argc, char* argv[]){
    int w,h,d;

    printf("Enter a width value: ");
        scanf("%d", &w);

    printf("Enter a height value: ");
        scanf("%d", &h);

    printf("Enter a depth value: ");
        scanf("%d", &d);

    printf("\nA %d by %d by %d rectangular prism's volume is %d.\n",w,h,d,w*h*d);

    return 0;
}
```

Screen Shots

```
Kenny@DESKTOP-09MI33M ~  
$ ls  
a.exe          challenge1.c  homework2.exe  Homework2-4.c  lab2-0.exe  
a.exe.stackdump  Homework2.c  Homework2-3.c  Homework2-5.c  struct.c  
  
Kenny@DESKTOP-09MI33M ~  
$ ./lab2-0.exe  
My first CprE 185 Lab programming project is almost done  
  
Kenny@DESKTOP-09MI33M ~  
$ |
```

```
Kenny@DESKTOP-09MI33M ~  
$ ls  
CodeFighter  HW  Lab2  
  
Kenny@DESKTOP-09MI33M ~  
$ cd Lab2  
  
Kenny@DESKTOP-09MI33M ~/Lab2  
$ ls  
lab2-0.c    lab2-1.c    lab2-2.c    lab2-2.png  lab2-3.exe  skel.c  
lab2-0.exe  lab2-1.exe  lab2-2.exe  lab2-3.c    lab2-3.png  
  
Kenny@DESKTOP-09MI33M ~/Lab2  
$ ./lab2-1.exe  
Kenneth A. Jacobson  
CprE 185  
8.9.2017  
  
Kenny@DESKTOP-09MI33M ~/Lab2  
$ |
```

```
/cygdrive/u/cpre185/lab2
8.9.2017

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ gcc lab2-1.c -o lab2-1

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ ./lab2-1
Kenneth A. Jacobson
CprE 185
8.9.2017

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ gcc lab2-2.c -o lab2-2

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ ./lab2-2
Enter a width value: 4

Enter a height value: 5

A 4 by 5 rectangle's area is 20

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ |
```

```
/cygdrive/u/cpre185/lab2

$ gcc lab2-3.c -o lab2-3

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ ./lab2-3
Enter a width value: 2

Enter a height value: 64
Enter a depth value: 8

A 2 by 64 by 8 rectangular prism's volume is 1024.

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ gcc lab2-3.c -o lab2-3

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ ./lab2-3
Enter a width value: 2
Enter a height value: 64
Enter a depth value: 8

A 2 by 64 by 8 rectangular prism's volume is 1024.

kenneth1@C02018-19 /cygdrive/u/cpre185/lab2
$ |
```