LAB 2 LAB REPORT

LAB 2

SECTION V

SUBMITTED BY:

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Problem

This lab aimed to test and practice simple print and scan statements through 4 simple exercises. This was achieved through a series of simple programs that outputted pre-determined phrases and tested scanning by computing the area and the volume of a rectangle and rectangular prism.

Analysis

As the main goal was to show off the proper execution of simple commands, compiling and filling out this lab report much of the work was done for us leading to some pretty simple design and testing outlines. This did not give much room for error or problem solving beyond simple debugging if an error occurred.

Design

The design of these programs followed the very extensive templates and examples to perform the simple tasks assigned. The lab gave us everything we needed beyond the numbers tested in lab 2-2 and lab 2-3.

Testing

To test this code, we used the template and checked any written code for syntax errors as the first few exercises left no room for error beyond syntax mistakes. For the final 2 problems in computing area and volume we checked by entering the same numbers into our calculator to check if the math was correct.

Comments

In completing this lab I was reminded of the subtle differences in coding language as the few failures were due to mistakes in entering Cygwin prompts or small syntax variations form java and C++ that are different than the design of C. It was also a good test of notepad++ as I had yet to use that particular exe to write code not that it changed much.

Source Code

```c
//lab2-0
//Zach Johnson
//section v
//lab2-0.c : Defines the entry point for the console application

#include <stdio.h>

int main(int argc, char* argv[])
{
    printf("My first CprE 185 Lab programming project is almost done\n");

    return 0;
}

//lab2-1
//Zach Johnson
//section v

#include <stdio.h>

int main(int argc, char* argv[])
{
    printf("Hello World !!\n");

    return 0;
}

//lab2-2
//Zach Johnson
//section v

#include <stdio.h>

int main(int argc, char* argv[])
{
    int x, y;
    printf("Enter a width:");
    scanf("%d", &x);
    printf("Enter a height:");
    scanf("%d", &y);
    printf("A %d by %d rectangle's area is %d\n", x,y,x*y);

    return 0;
}

//lab2-3
//Zach Johnson
//section v

#include <stdio.h>

int main(int argc, char* argv[])
{
    int x, y, z;
```

```c
    printf("Enter a width:");
    scanf("%d", &x);
    printf("Enter a height:");
    scanf("%d", &y);
    printf("Enter a depth:");
    scanf("%d", &z);
    printf("A %d by %d by %d prism's area is %d\n", x,y,z,x*y*z);

    return 0;
}
```

Screen Shots

SS-2.0

```
zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ gcc -o lab2 lab2-0.c

zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ ./lab2
My first CprE 185 Lab programming project is almost done
```

SS-2.1

```
zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ gcc -o lab2 lab2-1.c

zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ ./lab2
Hello World !!
```

SS-2.2

```
zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ gcc -o lab2 lab2-2.c

zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ ./lab2
Enter a width:5
Enter a height:6
A 5 by 6 rectangle's area is 30
```

SS-2.3

```
zachj@co2018-10 /cygdrive/u/cpre185/lab2
$ ./lab2
Enter a width:5
Enter a height:6
Enter a depth:3
A 5 by 6 by 3 prism's area is 90
```