

**TITLE**

**LAB # 2**

**SECTION # 1**

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**SUBMISSION DATE: 2/16**

**DATE: 2/15**

## Problem

Some problem.

## Analysis

Some analysis.

## Design

Some design.

## Testing

Some testing.

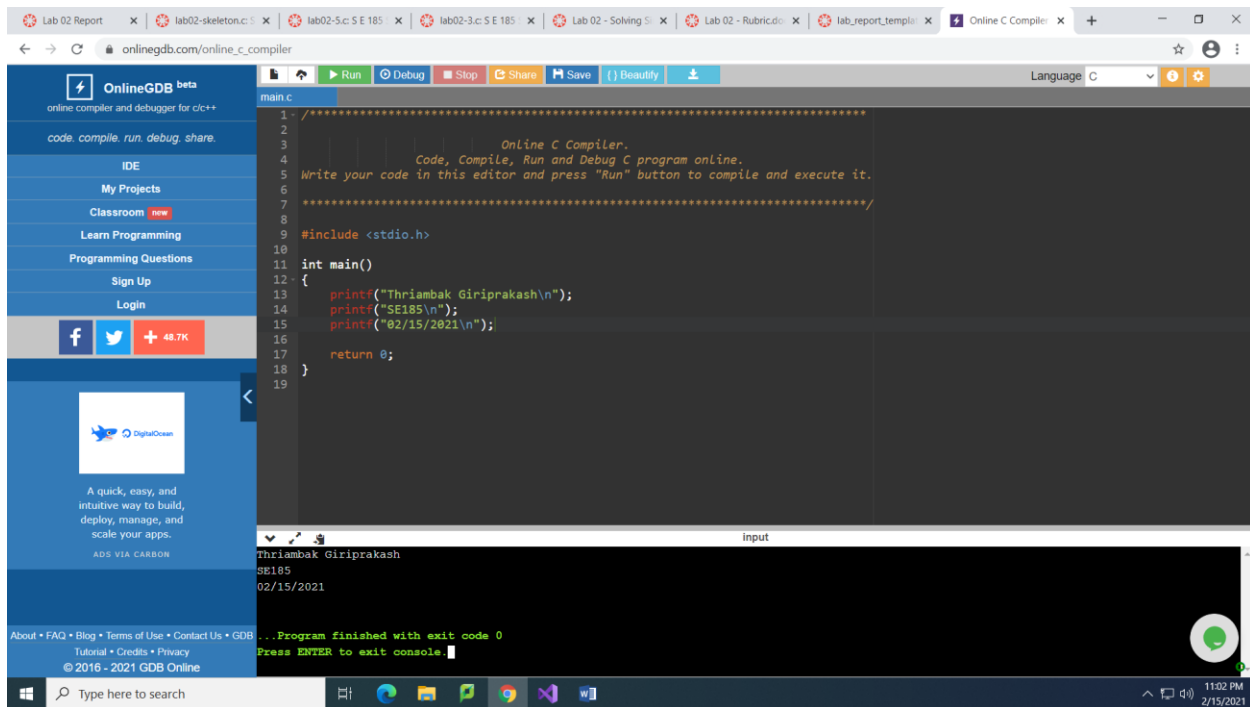
## Comments

Some comments.

## Screen Shots

<Number the screenshots and paste here. The point of numbering the screenshots is so that you can refer to them during your discussion in the various parts above. Alternatively, you can include the screenshots in-line with the text above as part of your discussion.>

1: 2-1



The screenshot shows the OnlineGDB IDE interface. The left sidebar contains navigation links: OnlineGDB beta, code, compile, run, debug, share, IDE, My Projects, Classroom, Learn Programming, Programming Questions, Sign Up, and Login. The main editor displays a C program in a file named 'main.c'. The program includes a header comment and a main function that prints the name 'Thriambak Giriprakash', the email 'SE185', and the date '02/15/2021'. The output window at the bottom shows the program's execution, displaying the same three lines of text. The status bar at the bottom indicates the program finished with exit code 0.

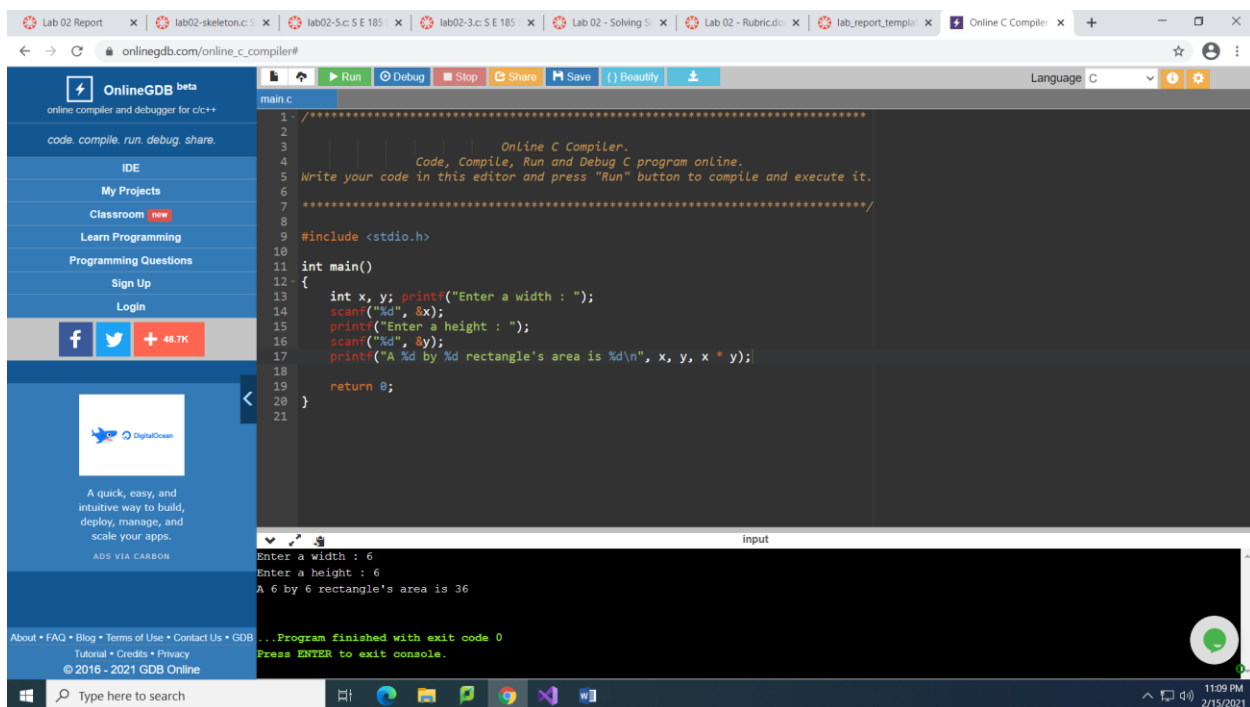
```
1- //*****
2-                                     Online C Compiler.
3-                                     Code, Compile, Run and Debug C program online.
4-                                     Write your code in this editor and press "Run" button to compile and execute it.
5-                                     *****
6-
7- #include <stdio.h>
8-
9- int main()
10- {
11-     printf("Thriambak Giriprakash\n");
12-     printf("SE185\n");
13-     printf("02/15/2021\n");
14- }
15-
16- return 0;
17-
18-
19-
20-
21-
```

Input

Thriambak Giriprakash  
SE185  
02/15/2021

...Program finished with exit code 0  
Press ENTER to exit console.

2: 2-2\_1



The screenshot shows the OnlineGDB IDE interface. The left sidebar is identical to the first screenshot. The main editor displays a C program in a file named 'main.c'. The program includes a header comment and a main function that prompts the user to enter a width and a height, then calculates and prints the area of a rectangle. The output window at the bottom shows the program's execution, displaying the prompts and the calculated area. The status bar at the bottom indicates the program finished with exit code 0.

```
1- //*****
2-                                     Online C Compiler.
3-                                     Code, Compile, Run and Debug C program online.
4-                                     Write your code in this editor and press "Run" button to compile and execute it.
5-                                     *****
6-
7- #include <stdio.h>
8-
9- int main()
10- {
11-     int x, y; printf("Enter a width : ");
12-     scanf("%d", &x);
13-     printf("Enter a height : ");
14-     scanf("%d", &y);
15-     printf("A %d by %d rectangle's area is %d\n", x, y, x * y);
16- }
17-
18- return 0;
19-
20-
21-
```

Input

Enter a width : 6  
Enter a height : 6  
A 6 by 6 rectangle's area is 36

...Program finished with exit code 0  
Press ENTER to exit console.

3: 2-2\_2

The screenshot shows the OnlineGDB interface with a C program for calculating the volume of a rectangle. The code is as follows:

```
1: //*****  
2: Online C Compiler.  
3: Code, Compile, Run and Debug C program online.  
4: Write your code in this editor and press "Run" button to compile and execute it.  
5: *****  
6: *****  
7: *****  
8: *****  
9: #include <stdio.h>  
10: *****  
11: int main()  
12: {  
13:     int x, y, z;  
14:     printf("Enter a width : ");  
15:     scanf("%d", &x);  
16:     printf("Enter a height : ");  
17:     scanf("%d", &y);  
18:     printf("Enter a length : ");  
19:     scanf("%d", &z);  
20:     printf("A %d by %d by %d rectangle's volume is %d\n", x, y, z, x * y * z);  
21:     return 0;  
22: }  
23: *****  
24: *****
```

The input/output window shows the following output:

```
Enter a width : 2  
Enter a height : 2  
Enter a length : 2  
A 2 by 2 by 2 rectangle's volume is 8  
...Program finished with exit code 0  
Press ENTER to exit console.
```

4: 2-3

The screenshot shows the OnlineGDB interface with a C program for calculating integer and decimal results. The code is as follows:

```
1: //*****  
2: Online C Compiler.  
3: Code, Compile, Run and Debug C program online.  
4: Write your code in this editor and press "Run" button to compile and execute it.  
5: *****  
6: *****  
7: *****  
8: *****  
9: #include <stdio.h>  
10: *****  
11: int main()  
12: {  
13:     int integer_result;  
14:     double decimal_result;  
15:     integer_result = 77 / 5;  
16:     printf("The value of 77/5 is %d, using integer math.\n", integer_result); // integer_result is a %d so i changed the code  
17:     integer_result = 2 + 3;  
18:     printf("The value of 2+3 is %d.\n", integer_result); //added variable for %d to link to  
19:     decimal_result = 1.0 / 22.0;  
20:     printf("The value 1.0/22.0 is %f.\n", decimal_result); // changed %l to %f since float is what you use for a double  
21:     return 0;  
22: }  
23: *****  
24: *****
```

The input/output window shows the following output:

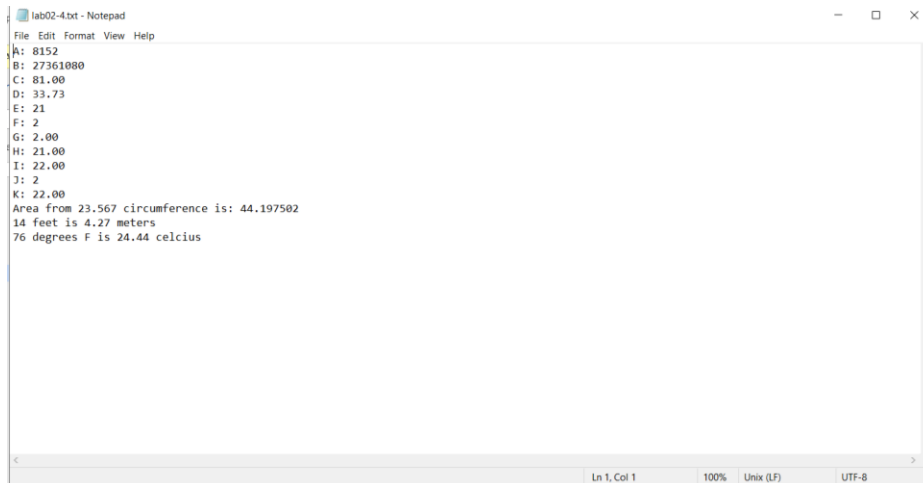
```
The value of 77/5 is 15, using integer math.  
The value of 2+3 is 5.  
The value 1.0/22.0 is 0.045455.  
...Program finished with exit code 0  
Press ENTER to exit console.
```

5: 2-4

```
//lab02-4
double area = pow(((23.567/3.1416)/2),2)*3.1416;
//Pi*d = circumference so Pi(circ/Pi/2)^2 = area
printf("Area from 23.567 circumference is: %f\n",area);

double ftoM = 14 * .3048; //1 foot is .3048 meters
printf("14 feet is %.2f meters\n", ftoM);

double ftoC = (76-32)/1.8; //1 F is (1-32)/1.8 C
printf("76 degrees F is %.2f celcius\n", ftoC);
```



```
lab02-4.txt - Notepad
File Edit Format View Help
A: 8152
B: 27361000
C: 81.00
D: 33.73
E: 21
F: 2
G: 2.00
H: 21.00
I: 22.00
J: 2
K: 22.00
Area from 23.567 circumference is: 44.197502
14 feet is 4.27 meters
76 degrees F is 24.44 celcius

Ln 1, Col 1    100%    Unix (LF)    UTF-8
```

6: 2-5

```
trgl@C01318-08 /cygdrive/u/SE185/lab02
$ ./lab02-5
Enter A value: 5
5.000000Enter B value: 9
9.000000 C is : 10.295630
```