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EEL2880

Homework 2

Integrated Development Environment (IDE)

The screenshot displays the Programiz Online C Compiler web application. The browser's address bar shows the URL `programiz.com/c-programming/online-compiler/`. The interface includes a top navigation bar with the Programiz logo and a promotional banner for Amazon. The main workspace is divided into three sections: a file explorer on the left showing `main.c`, a central code editor, and an output panel on the right. The code editor contains a C program that calculates the product of two numbers, `a` and `b`, and prints the result along with the user's name and the current date and time. The output panel shows the program's execution, including the input values `11` and `5`, the calculated product `55`, and the user's name `Dawayne King`. The output also shows the date and time of execution: `First Progra Mon Sep 16 16:17:52 2024`. The bottom of the screenshot shows the Windows taskbar with several open applications, including the Online C Compiler, a Word document, and a folder named `Homework 1 - Word`.

```
1 // Online C compiler to run C program online
2 /*Program to calculate the product of two numbers.*/
3
4 #include <stdio.h>
5 #include <time.h>
6 int a, b, c;
7 int product(int x, int y);
8
9 int main()
10 {
11     time_t rawtime = time(NULL);
12     /* Input the first number */
13     printf("Enter a number between 1 and 100: ");
14     scanf("%d", &a);
15
16     /* Input the second number */
17     printf("Enter another number between 1 and 100: ");
18     scanf("%d", &b);
19
20     /* Calculate and display the product */
21     c = product(a, b);
22     printf("\n%d times %d = %d\n", a, b, c);
23     printf("Dawayne King\n");
24     printf("First Progra %s\n", ctime(&rawtime));
25     return 0;
26 }
27 /* Function returns the product of its two arguments */
28 int product(int x, int y)
29 {
30     return(x*y);
31 }
32 }
33
34
```

Output

```
/tmp/TESGBP82mI.o
Enter a number between 1 and 100: 11
Enter another number between 1 and 100: 5

11 times 5 = 55
Dawayne King
First Progra Mon Sep 16 16:17:52 2024

=== Code Execution Successful ===
```

1. For the assignment, I used a web compiler as I was not able to use the exact software to download on my Macbook to be able to complete the assignment. If I were to have bootcamp loaded to runs windows on my laptop, or used another computer to download appropriate software such as the library as I completed this, then the following answers would be as follows.
 - a. The folder that holds the C Compiler will be directly installed on the desktop after installation for easy accessibility. On MacOS, you can see the native C Compiler Clange can be found in `/usr/bin/`. If I were to use the native windows version, the compiler would be found in `'C:/MinGW/bin'` (according to stackoverflow)
 - b. The folder that holds the C header files from the compiler on MacOS would be included in the working or previous director, if not cleared or removed. On MacOS, the director that headers would be included in is `/usr/include/`, whereas on windows, headers would be found in `'C:/MinGW/inlcude'`.

- c. The folder that holds the library files for C on MacOS are located in the directory 'usr/lib/'. On the Windows OS, you can find the library in 'C:/MinGW/lib'.
- d. For windows, if installing a program such as Code:: Blocks, I would store the software file in the %ProgramFiles%/AppName with the other nonnative downloaded software
- e. Executable files are usually stored in program files or with app data