

Quest 1

100 EXP

CPSC121 SI

Craig: Hello Programmer!

Craig: My name is Craig, and this is my assistant Rex.

Rex: Hello.

Craig: Welcome back to the vast world of Computer Science.

Craig: As of right now, you are a level 1 programmer. You will level up as you gain experience from a variety of quests and battles. We will explain those when we get to them.

Craig: Since you are in a computer science course, I will assume that you know what a computer is.

Craig: I'm sure you also know what hardware and software is, but in case you don't, hardware refers to the physical components of a computer, while software refers to the instructions that the hardware will run.

Craig: In this course you will learn many programming concepts that can be applied throughout all of computer science.

Craig: BUT WAIT!!!

Craig: Before you get to writing awesome code, you must have an understanding of the hardware that will be running that code.

Craig: There are five major component categories that you should know:

- Central Processing Unit (CPU)
- Main Memory (RAM)
- Secondary storage devices
- Input devices
- Output devices

Craig: The CPU is the hardware component that runs programs. Main memory (RAM) is what holds the program instructions and data. Main memory is also called Random Access Memory or RAM. Secondary storage devices are where data is stored permanently, like hard drives!

Craig: Before we continue, do you know what the smallest piece of memory is called?

Craig: Too slow! It's called a bit, which stands for binary digit. If you put 8 consecutive bits together you get something called a byte. Remember bits and bytes because they are useful further down the road!

Craig: Moving on, Input devices are devices that send inputs to the computer while output devices received information from the computer, to deliver to the user.

Craig: Rex, please give our friend here some examples of input and output devices.

Rex: ...

Craig: What's wrong Rex?

Rex: I forgot which belonged to which.

Craig: Well then, we will have to review it then!

Craig: (to you) Please help Rex identify which of the following devices belong to input devices, and which belong to output devices:

1. Mouse: _____
2. Speakers: _____
3. Printer: _____
4. Monitor: _____
5. Camera: _____
6. Keyboard: _____
7. Microphone: _____

Craig: Excellent! I think... Please have your SI leader check if your answers are correct.

Rex: Thank you so much! I remember now! (*Craig looks unconvinced*)

Craig: Anyways, now that we know a little more about our hardware, it is time to jump into why you are really here. Let's get to coding!

Craig: When it comes to programming style, your code is like your resume. Typically less code is better code, but you want to keep your code clean, organized and elegant. Your programming style is a representation of you, for better or worse.

Craig: With that said, it is time for **Quest 1**! How exciting!

Craig: Quest 1 requires you to write a program that asks the user for 2 people's name and age. The program will then output the sum of the two people's ages.

Craig: I sent Rex out on this quest yesterday. Rex please turn in your quest.

Rex: Here it is!

Rex's Code:

```
#include<iostream> using namespace std; int main() { int first_age, second_age; string person1,
person2; cout << "Enter the name of person 1: "; cin >> person1; cout << endl << "Enter the age of
person 1: "; cin >> first_age; cout << "\nEnter the name of person 2: "; cin >> person2; cout << endl <<
"Enter the age of person 2: "; cin >> second_age; cout << "The combined age of " << person1 << " and "
<< person2 << " is " << first_age + second_age; return 0; }
```

Craig: What is this?!?!

Craig: (to you) Rex's code works, but it is unclear and unorganized. Please help him organize his code and I'll give you a pass on Quest 1 for assisting Rex.

Instructions: In order to complete Quest 1, rewrite Rex's code below: