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Computer Basics Course

Essay 18

1. How is a computer basically composed?
   * A computer is composed of many hardware components that work together to process instructions. A motherboard is usually largest and the most important piece of hardware that every other piece of hardware is connected to. A computer’s motherboard is electrified and sends electrical signals to other pieces of hardware and based on these signals a task is performed. A computer is basically a complex system of electrical circuits and hardware such as a hard drive or graphics card that carries out instructions based on inputs from the software installed on it.
2. How does a computer work?
   * A computer works by taking an input from a user or software and converting that input to a useful piece of output data. The input is converted into an electrical signal and that signal is processed and handled by the computers CPU. The CPU determines what to do based on the input and delegates a piece of hardware connected to complete the task.
3. How are numbers stored, added and handled by a computer?
   * Numbers are converted to binary and stored in an address in a computer’s memory or RAM. Those numbers are added and handled by a computer by using a complex system of logical gates. These logical gates are usually composed of transistors that can regulate electrical signal.
4. Why is it useful for you to know how a computer works as a developer?
   * Understanding the ins and outs of how a computer works will help a developer because they write code that directly communicates with the computer. This direct communication becomes easier by knowing the steps that a computer will carry out to execute your code.
5. What did you learn from doing this section of the course?
   * This section of the course gave me good understanding about how a computer actually processes data. The video “How a CPU Works” was informative and showed how a CPU works with the RAM to complete tasks. It was helpful to see a physical representation of addresses in RAM and the steps that are taken to carry out a simple program like a guessing game. Also, in the video “See How Computer Add Number in One Lesson” the diagram of how a computer uses electrical circuits to add numbers in binary was very informative.