



Written Assignment

Objective

The objective of this assignment is to give you practice in expository scientific writing. You must write a minimum of five hundred words, and not much more if you can avoid it. Your grade will be based on specific criteria, described below.

Visit a website that has schematic diagrams of computers. Two that I suggest are

- <http://notebookschematic.com>
- <http://www.laptopdesktopschematic.com>

These provide access to schematic diagrams of a wide variety of laptop and desktop computers. Although these websites are paid services, they allow one or two free downloads. Also, you can view an image there and save it at a lesser quality to your file system.

Pick a specific model and write a description of this system in language that someone taking this class can understand. The description should describe the memory hierarchy with details about the types of cache and memory, the bus organization, what ports and devices are supported and so on. You will need to look up information about this system that is not described in the schematic. For example, the schematic may not separate out the caches, so you will have to find out what cache the processor uses, and get its specifications. The same will be true for the memory and the various peripherals.

Grading

The grade on this assignment will be based on the following rubric:

Completeness (50%) A complete description is one that describes each of the components in detail. The components must include the processor, the caches, the memory, the buses. Additionally, other devices such as graphics components should be described.

Conceptual Development (20%) The description must describe the architecture in terms of the concepts covered in class, including performance characteristics (such as bus speeds or memory latency and so on) and demonstrate an understanding of these concepts.

Structure (10%) The writing has a logical progression of ideas with a clear structure.

Diction (10%) Writing is smooth, skillful, and coherent.

Mechanics (10%) Punctuation, spelling, and capitalization are correct.