**Module 1 discussion**

After completing the reading Chapter 1, please reflect **on ONE** of the following questions:   
1  
a) Pick one of the protocols listed below and report on its origin, purpose and supporting organization. When using the Internet for research purposes, be sure to give the Author (if available), date of article (if available), name or title of the webpage, URL and the date accessed.

Protocol: PNG, HTML, XML, PDF, MPEG, MP3, HTTP, DVD-ROM

b) List five specific skills or abilities required of an information technology (IT) systems architect or system analyst? (There are a lot of responsibilities listed in the text. Here is an examples:

       b-1) Design and implement systems that meet an organization's information technology (IT) needs.

       b-2) Compare the features of OS/X, Windows, and Linux knowledgeably and decide which ones are important.

2. What is the difference between machine language and assembly language?

Machine language: (the lowest language)

Machine language is the actual bits which only can be accepted and executed by processor or computer. Usually viewed as a sequence of binary code. The processor can read these binary code (bits) from memory and these “bits” represent instruction. Thus, machine language provide a way that people can use binary code to operate processor or entering some instruction into a computer.

The instruction is a serious code consisting of 0 and 1. It can be divided into several segments. The code of each segment represents different meaning. For example, here is an instruction for computer” 1011011000000000”, it can make computer do an add operation. The first eight binary code we call them is “operation code” and other binary code we call them is “address code”. Besides, machine language is not easy for human to understand. It is hard to memory or operation.

Assembly language: (lower language)

Assembly language is a language intended for humans to make writing code easier. Compare with machine language, assembly language can use symbol to express operation code and address code. It is a good vehicle for human to memory some instruction. For example, if computer want to finish the operation of 7 plus 8 it just needs these instructions.

START GET 7;

ADD 8;

PUT C;

END STOP;

Even though that remember assembling language’s instruction is easier than machine language, it is the lower language. This is because it is tricky for human to operate or make program by assemble language than high level language like basic, C or JAVA.

3. Why is assembly language considered easier for humans to program in than machine language?

4. Why are self-modifying programs less common today than they were on early computers?

5. Explain briefly why the quality of a compiler has more impact on the execution time of program developed using the compiler than the quality of an assembler has on programs developed using the assembler.

6. What is the differences between RAM and ROM?

7. How does a multi programmed system present the illusion that multiple programs are running on the machine simultaneously? What factors can cause this illusion to break down?

8. Give one example of problem that could occur if a computer allowed user programs to access I/O devices directly, rather than requiring them to go through the operating system.

9. Why is it necessary for a computer system to provide a privileged mode and a user mode for programs?

10. What is the differences between RAM and ROM?

11. Suppose that a computer’s memory system did not have the random-access property-that is , that memory references took different amounts of time to complete depending on which address they referenced. How would this complicate the process or program development?

Provide specific examples from the textbook or other sources to support your answer).

Please type the question before your answer. You cannot use the same answer from your textbook, if any student already posted the textbook answer before you, (but you can use any other reference from Internet). It is good idea to submit you answer as soon as possible, if you want to use the textbook as a reference (before someone enclosed the textbook answer to your selected question).

**Please make sure you have completed your one initial (original) post (OP) to discussion or, one your reply (1R) to others original posts by due each Sunday at 11: 59pm.**