COMSC 101 “Virtual Dream Computer” Project

This assignment requires you to build a virtual dream computer from the motherboard up. Price is no object. You can go to several computer stores that have individual components and price it out or you can complete this all online and submit your finished “masterpiece” in webct.dvc.edu, assignments link. This project will build as the COMSC101 course discusses each of these topics. You may change your mind as the class progresses so prepare to be open minded and flexible. This is the third semester that has completed this project and all my students, from very, very beginners, to very, very, knowledgeable, have enjoyed it and benefited from it. Sorry, no MACs. The components are the same however, only Apple can build a MAC. Your finished product will be presented in the same order and given, i.e. 1.), 2.), 3.), etc. We have seen presentations of computers that range from the mid-100s to over 1 million. Put some thought, research, creativity, and time into this. If you rush through it, it will show it.

1) What do you want your computer to be able to do? What will you use it for? This is the first question you have to ask yourself before you can pick the right components. If someone asked you to build, or pick, a computer for them; this is the first question you will ask: What are you going to use it for? Think outside of the box, and research all the possibilities. Once you know this, and you can do some research on what’s available before deciding, then go to step 2.
2) Research motherboards – the reason to make this the first component to choose is because everything else is dependent on it. A low-end motherboard will bog everything else down. Some students want to choose the CPU (microprocessor first) however these go hand-in-hand so think about your CPU preference, if you have one, when you are choosing your motherboard.

   a) There are different manufacturers, types, and styles. Find the one that best fits your answer to step 1. Price is no object. Remember, this is a virtual dream machine you are building or one that you want to build.

   b) List the features that will be important to you and why you chose this motherboard. Ask yourself if it is appropriate for the computer you are designing, refer to step 1.

   c) Take a copy of the motherboard you have chosen and place in Microsoft PowerPoint or Paint, if you want to modify the image. Paint will allow you to resize it, crop it (cut parts out/modify) or group components together. PowerPoint or keynote is the preferred application for your finished product.

   d) State the purpose of the motherboard

   e) Give the price and resource(s)

3) List the components you will need i.e. case, memory, hard drive, processor, graphics card, sound card, printer card, there may be more as your project continues.

4) List the purpose of each main component, i.e. motherboard (circuit board), CPU, RAM, Storage devices, extra video card (if you add one), the case, etc. You can list the purpose of each component as the project goes along (which is preferred) or a couple of slides dedicated to this task. This will give you a guide for the rest of the project.
5) Research cases
   a) Find the case that is right for the motherboard you chose in step 2.
   b) Take a copy of the motherboard you have chosen and place in Microsoft PowerPoint or Paint, if you want to modify the image. Paint will allow you to resize it, crop it (cut parts out/modify) or group components together.
   c) PowerPoint will be used for your finished product.
   d) List the features that will be important to you and why you chose this case
   e) Give the purpose of the case
   f) Give the price and resource(s)

6) Research microprocessors (central processing unit CPU)
   a) Find the processor that is right for the motherboard you chose in step 2.
   b) Take a copy of the motherboard you have chosen and place in Microsoft PowerPoint or Paint, if you want to modify the image. Paint will allow you to resize it, crop it (cut parts out/modify) or group components together PowerPoint will be used for your finished product. List the features that will be important to you and why you chose this processor
   c) Give the purpose of the CPU
   d) Give the price and resource(s)

7) Continue researching the components that you will need to build your computer.
   a) Find each component that is right for the motherboard you chose in step 2 AND is appropriate for Step 1 – what will you be using the computer to do.
   b) Take a copy of each component you have chosen and place in the appropriate application
   c) List the features that will be important to you and why you chose each component until you have a complete system
   d) Give the price and resource(s)
8) Research and add the peripherals you will need.
   a) Find each peripheral that is right for your needs
   b) Take a copy of each peripheral you have chosen and place in Microsoft PowerPoint or Paint. Paint will allow you to resize it, crop (cut parts out/modify) or group components together. PowerPoint will be used for your finished product. List the features that will be important to you and why you chose each component until you have a complete system
   c) Give the price and resource(s)
   d) Place your components in a professional, attractive presentation in MS PowerPoint. Be sure to include a slide with the title and your name, description of each component, its purpose, its price, your resources, why it was your choice and if you plan on purchasing it now or sometime in the future.

9) Research the operating system you will need. Be sure to list the reasons for your decisions.

10) Research the software applications you will need. Include price(s) and resource(s).

11) Go online or go to one of the many local computer stores, i.e. PC Systems on Willow Pass Rd., Fry’s electronics, R Computers, etc. and price out your system.

12) State if you will purchase your virtual dream machine now, in the future, or never; at least not as far as you know at this time.

13) Submit your finished PowerPoint project in the dropbox of D2L or ask your instructor.

   FOR in-person sections only: Presenting this project to the class is optional. Extra points will be given if you are presenting and you must stay for all presentations for full credit. Check with your instructor. We will all support each other during the presentations.
We hope you enjoy this project and learn a lot from it. Remember to think outside of the box, dream big or approach this project realistically and actually purchase and build it. It is up to you. Think about multiple monitors, special keyboards, virtualization, gaming, photo editing, school work, programming, etc. Some students include gaming chairs, a diamond trimmed monitor, video and/or music recording, 3D modeling. Be sure you have learned the purpose of each component you chose. I can go on and on, you can do the same. Have fun!