**Overview**

Work individually to understand and establish the specifications for a PC dedicated to a specific task or application.

My PC application topic Is: **Business office computer**

Answering the student questions will help you to develop a deeper understanding of the main components of a personal computer. It will also help you to identify the features that are most important for your specific PC application topic and the features that are nice to have but are not as critical for your topic.

Preparing a brochure explaining your PC application topic and your selection of personal computer components and features will help you to summarize what you have learned from the student questions. The brochure will also help you to share your findings in a “tradeshow” to be held in class.

The date for the “tradeshow” is: **Wednesday, October 23, 2019**

**Student Questions**

1. Think about your PC application topic. Do some research to find general answers to the following questions.
   1. How important is computer speed for my topic ( High / Medium / Low)? Justify your answer using examples of how a computer is used to perform a task related to your application.

**a. Since this is a Business Computer, it most likely would have Business related files and business related uses. Most likely also would have many high storage files that are very critical, so having very good and efficient speed would help a lot on opening and running those files.**

* 1. How important is data storage for my topic ( High / Medium / Low)? Justify your answer using examples of how a computer is used to perform a task related to your application.

**b. Data storage stores files, videos, photos etc. on the computer. Data storage is going to be very important because businesses usually have a lot of important files that need to be stored. A lot of important information, ideas and other files need to be stored for the businesses to be operated properly. So, having a high storage computer would and will help a lot and is very important.**

* 1. How important is graphics and sound for my topic ( High / Medium / Low)? Justify your answer using

examples of how a computer is used to perform a task related to your application.

**c. Graphics and sound is not that important because it doesn’t really provide that much for the computer. For a business computer, the graphics and sound isn’t that important because sound has to perform at its minimum and the same for graphics. This is because, they just need to be there so the person can see what’s going on and hear what’s going on as well. In addition, it needs to be there but it doesn’t have to be that good at performance.**

* 1. How important is internet connectivity for my topic ( **High** / Medium / Low)? Justify your answer using examples of how a computer is used to perform a task related to your application.

**d. These days everything is on the internet. For research purposes, internet is very important because businesses constantly research stuff. They also receive and sent many emails daily. So knowing that, internet is needed not just for business computers but for everything.**

1. CPU Processor Chip
   1. What speed of CPU Chip do you require? (High / Medium / Basic)

**a. High speed to run files and other applications.**

* 1. Provide an example of a high speed CPU using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features

**b. Intel core i9. Vendor: Best Buy, intel, Amazon. Price: starts from $939. Couldn’t find model number. Main features:  intel core X-series processor family are designed to scale to your performance needs by using the two fastest cores at higher frequencies and up to 18 cores when extreme mega tasking is required. Experience extreme performance, immersive 4K visuals, high speed storage and memory, and the latest technological advancements – all designed to get you from planning to final product faster than ever.**

* 1. Provide an example of a medium speed CPU using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features

**c. intel i5 (most school computers have intel core i5). Couldn’t find model number. Vendor: Amazon, Intel. Price: $200-$500.**

* 1. Provide an example of a basic speed CPU using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features

**d. intel i5 (most school computers have intel core i5). Couldn’t find model number. Vendor: Amazon, Intel. Price: $200-$500.**

* 1. What would be the least expensive CPU Chip that meets your requirements? List the Model Number, Price, and Vendor Source.

**e. intel i5 (most school computers have intel core i5). Couldn’t find model number. Vendor: Amazon, Intel. Price: $200-$500.**

1. RAM Memory
   1. What size of RAM Memory do you require? (**Large** / Medium / Basic)

**a. Businesses need high speed performance in order to run and open big files.**

* 1. Provide an example of a large size RAM using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features

# b. Corsair Vengeance 32gb (8gbx4). Vendor source: Amazon. Price: $300

* 1. Provide an example of a medium size RAM using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features

# c. Komputerbay 8GB (2 X 4GB). Vendor source: Amazon. Price: $45.

* 1. Provide an example of a basic size RAM using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features

**d. Komputerbay 8GB (2 X 4GB). Vendor source: Amazon. Price: $45. Most schools and basic computers use this type of ram because it is a decent amount to run the computer efficiently and can run decent size files and applications. This would be the most common type of RAM brand and capacity.**

* 1. What would be the least expensive RAM Memory that meets your requirements? List the Model Number, Price, and Vendor Source.

**e. As mentioned before, Komputerbay 8GB (2 X 4GB). Vendor source: Amazon. Price: $45. Most schools and basic computers use this type of ram because it is a decent amount to run the computer efficiently and can run decent size files and applications. This would be the most common type of RAM brand and capacity.**

1. Graphics Card
   1. What graphics speed and resolution do you require? (High / **Medium** /Basic - On Motherboard)

**a. They require Medium graphic speed and resolution**

* 1. Provide an example of a high-end Graphics Card using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
  2. Provide an example of a medium-end Graphics Card using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
  3. What would be the least expensive Graphics Card that meets your requirements (or do you just need basic graphics provided by the motherboard)? List the Model Number, Price, and Vendor Source.

1. Sound Card
   1. Do you require special sound support? (High / Medium /Basic - On Motherboard)
   2. Provide an example of a high-end Sound Card using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
   3. Provide an example of a medium-end Sound Card using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
   4. What would be the least expensive Sound Card that meets your requirements (or do you just need basic sound provided by the motherboard)? List the Model Number, Price, and Vendor Source.
2. Motherboard
   1. Do you require any special motherboard features (based on your answers to the above questions)?
   2. Provide an example of a high-end Motherboard using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
   3. Provide an example of a basic Motherboard using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
   4. What would be the least expensive Motherboard that meets your requirements? List the Model Number, Price, and Vendor Source.
3. HDD (Hard Disk Drive or Solid State Drive)
   1. Do you require any special Hard Disk Drive features (based on your answers to the above questions)?
   2. Provide an example of a high-end HDD using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
   3. Provide an example of a basic HDD using the list of suppliers provided in the appendix. List the Model Number, Price, and Vendor Source. Also list its main features
   4. What would be the least expensive Hard Disk Drive that meets your requirements? List the Model Number, Price, and Vendor Source.
4. Removable Media (DVD / USB / Flash)
   1. Do you require any special Removable Media features? Explain what extra features are required for your PC application topic.
   2. If so, List the Model Number, Price, and Vendor Source for any of these extra features.
5. Network Interface (Ethernet /Fiber / Wi-Fi / Bluetooth)
   1. Do you require any special Network Interface features? Explain what extra features are required for your PC application topic.
   2. If so, List the Model Number, Price, and Vendor Source for any of these extra features.
6. Monitor, Mouse, Keyboard
   1. Do you require any special Monitor, Mouse, Keyboard, etc. add-ons? Explain what extra features are required for your PC application topic.
   2. If so, List the Model Number, Price, and Vendor Source for any of these extra features.
7. Portability / Mobility
   1. Will you be using your PC in one place, do you need some portability, or do you need a high degree of mobility? Explain the need for portability your PC application topic.
   2. Do you require a Desktop / Laptop / Notebook or other PC format?
   3. How will this affect the cost of your dream machine.
8. Rank each personal computer component in order of priority (1-lowest, 10-highest) based on your research above. Each component must have its own priority number… no duplications.
   * CPU Processor Chip 1 2 3 4 5 6 7 8 9 10
   * RAM Memory 1 2 3 4 5 6 7 8 9 10
   * Graphics Card 1 2 3 4 5 6 7 8 9 10
   * Sound Card 1 2 3 4 5 6 7 8 9 10
   * Motherboard 1 2 3 4 5 6 7 8 9 10
   * HDD (Hard Disk Drive or Solid State Drive) 1 2 3 4 5 6 7 8 9 10
   * Removable Media (DVD / USB / Flash) 1 2 3 4 5 6 7 8 9 10
   * Network Interface (Ethernet /Fiber / Wi-Fi / Bluetooth) 1 2 3 4 5 6 7 8 9 10
   * Monitor, Mouse, Keyboard 1 2 3 4 5 6 7 8 9 10
   * Portability / Mobility 1 2 3 4 5 6 7 8 9 10

**Brochure**

Work individually to create a 4 page brochure according to the following guideline.

**Page 1 – Your Application Topic**

Describe your topic and the top PC components for your topic.

Include the following on this page:

* Describe your application topic and how a PC is used
* In general terms, describe what the best PC for this application would look like (e.g. speed vs portability)
* Describe in more detail the top three most important PC components and explain why they are important for your application

**Page 2 – Would-Be-Nice Features**

Describe your decisions about what PC components are less important but would be nice to upgrade if you had the money.

Include the following on this page:

* Describe the would-be-nice components (just below your top 3 priorities) and what your options for upgrading them would be.
* Describe the components / features at the bottom of your priority list and why you would not spend extra money on them.
* Provide some details about different vendors / suppliers and the options they offer.

**Page 3 – Your Budget Machine**

Your budget is $800. Select a pre-packaged PC or customize / build a PC from parts to fit under this budget.

Include the following on this page:

* Your PC specs, model, cost, vendor, etc.
* Priority components that you were able to include for this price.
* Priority components that you had to leave out because of budget limitations.

**Page 4 – Your Dream Machine**

Your budget is $2000. Select a pre-packaged PC or customize / build a PC from parts to fit under this budget.

Include the following on this page:

* Your PC specs, model, cost, vendor, etc.
* Priority components that you were able to include for this price.
* Priority components that you were able to spend extra on.
* Also comment on any priority components that you had to leave out or down-grade.

**Appendix A: PC Vendors, Parts, & Customization**

Suggested on-line computer sources:

* [www.newegg.ca](http://www.newegg.ca)
* [www.dell.com/en-ca](http://www.dell.com/en-ca)
* [www.tigerdirect.ca/](http://www.tigerdirect.ca/)
* [www.canadacomputers.com](http://www.canadacomputers.com)

**Appendix B: Application Topics**

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| --- | --- |
| **Task** | **Student Name** |
| ***Game Computer*** |  |
| **Photo Editing & Organization** |  |
| ***Business Office Computer*** |  |
| ***Student Home Computer*** |  |
| ***Factory Floor Computer*** |  |
| ***Media Production and Streaming Computer*** |  |
| ***Web Surfing Computer*** |  |
| ***Game Computer*** |  |
| **Photo Editing & Organization** |  |
| ***Business Office Computer*** |  |
| ***Student Home Computer*** |  |
| ***Factory Floor Computer*** |  |
| ***Media Production and Streaming Computer*** |  |
| ***Web Surfing Computer*** |  |
| ***Game Computer*** |  |
| **Photo Editing & Organization** |  |
| ***Business Office Computer*** |  |
| ***Student Home Computer*** |  |
| ***Factory Floor Computer*** |  |
| ***Media Production and Streaming Computer*** |  |
| ***Web Surfing Computer*** |  |