**Overview**

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

My PC application topic Is: Gaming 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: 10/23/2019

**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.
      1. The computer speed in a gaming computer is high priority because if you’re running a game then if your speed is low you’ll lag and gaming pc’s are not meant to lag.
   2. 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.
      1. The storage for a gaming pc is high priority because now triple A games require 50 to even 100 gigabyte worth of storage and you are not only going to be playing 1 game you are going to be playing multiple games that take up a lot of space.
   3. 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.
      1. The importance of a graphics and sound card is very high because without a graphics you can’t run some games with high quality graphics and you’ll be missing out and its similar with the sound card you can’t enjoy a game to its fullest extent without high quality sound it will feel fake and as if you are not in the game.
   4. 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.
      1. Low because even though how important internet is now days Wi-Fi isn’t as important because you’ll first need the high spec components in a gaming pc. and you could attach an Ethernet cable to your pc rather than adding a Wi-Fi stick
2. CPU Processor Chip
   1. What speed of CPU Chip do you require? (High / Medium / Basic)
      1. High
   2. 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
      1. AMD RYZEN 7 3700X from new egg it has 8-Core 3.6 GHz clock speed its on sale for $430
   3. 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.
      1. Intel Core i3-9100 Coffee Lake from new egg it has 4-Core 3.6 GHz clock speed and its on sale for $178
   4. 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
      1. Intel Pentium G4560 Kaby Lake from new egg and it has Dual-Core 3.5 GHz clock speed and its on sale for $85
   5. What would be the least expensive CPU Chip that meets your requirements? List the Model Number, Price, and Vendor Source.
      1. Intel Core i3-9100 Coffee Lake its from new egg for $178
3. RAM Memory
   1. What size of RAM Memory do you require? (Large / Medium / Basic)
      1. Medium
   2. 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
      1. G.SKILL Ripjaws V Series 32GB from newegg Desktop Memory Model F4-3200C16D-32GVK for $93
   3. 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
      1. G.SKILL Ripjaws V Series 8GB from newegg Desktop Memory Model F4-3200C16D-8GVKB for $58
   4. 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
      1. Crucial 4GB from new egg Desktop Memory Model CT2KIT25664AA800 for $25
   5. What would be the least expensive RAM Memory that meets your requirements? List the Model Number, Price, and Vendor Source.
      1. G.SKILL Ripjaws V Series 32GB from newegg Desktop Memory Model F4-3200C16D-32GVK for $93
4. Graphics Card
   1. What graphics speed and resolution do you require? (High / Medium /Basic - On Motherboard)
      1. High
   2. 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
      1. EVGA GeForce RTX 2080 Ti from new egg for $1,485 N82E16814487418
   3. 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
      1. GIGABYTE Radeon RX 570 from new egg for $250 N82E16814125966
   4. 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. GIGABYTE Radeon RX 570 from new egg for $250 N82E16814125966

1. Sound Card
   1. Do you require special sound support? (High / Medium /Basic - On Motherboard)
      1. Medium
   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
      1. ASUS STRIX SOAR 8 from new egg Channels 44.1K / 48K / 88.2K / 96K / 176.4K / 192KHz PCI Express Interface for $154
   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
      1. Creative Sound Blaster Audigy FX 5.1 from new egg 600 ohm Headphone Amp for $50
   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.
      1. Creative Sound Blaster Audigy FX 5.1 from new egg 600 ohm Headphone Amp for $50
2. Motherboard
   1. Do you require any special motherboard features (based on your answers to the above questions)?
      1. Yes for every type of cpu the motherboard has to be compatible
   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
      1. ASUS B75M-PLUS from new egg with VGA SATA DDR3 for $200 9SIADDZ94X4356
   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
      1. Gigabyte GA-H61M-DS2 Micro ATX LGA1155 Motherboard from pc part picker it has 2 RAM SLOTS MAX 16 GB for $150
   4. What would be the least expensive Motherboard that meets your requirements? List the Model Number, Price, and Vendor Source.
      1. ASUS B75M-PLUS from new egg with VGA SATA DDR3 for $200 9SIADDZ94X4356
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)?
      1. No I don’t
   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
      1. Seagate IronWolf 16TB NAS Hard Drive from new egg it has 7200 RPM 256MB Cache SATA 6.0Gb/s 3.5 for $665 N82E16822184805
   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
      1. Seagate BarraCuda ST1000DM010 1TB from new egg it has 7200 RPM 64MB Cache SATA 6.0Gb/s 3.5 for $55
   4. What would be the least expensive Hard Disk Drive that meets your requirements? List the Model Number, Price, and Vendor Source.
      1. Seagate BarraCuda ST1000DM010 1TB from new egg it has 7200 RPM 64MB Cache SATA 6.0Gb/s 3.5 for $55
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.
      1. Yes to add the windows OS
   2. If so, List the Model Number, Price, and Vendor Source for any of these extra features.
      1. Kingston 4GB Ironkey for $90 from amazon with Unique serial number and scannable barcode
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.
      1. No but you do need ethernet cables
   2. If so, List the Model Number, Price, and Vendor Source for any of these extra features.
      1. Cat 6 Ethernet Cable 50ft from amazon for $15
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.
      1. No a regular display mouse and keyboard will do
   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.
      1. It will be in one place all the time it won’t ever be transported somewhere else
   2. Do you require a Desktop / Laptop / Notebook or other PC format?
      1. Desktop
   3. How will this affect the cost of your dream machine.
      1. I am not transporting it therefore it won’t be effected
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 9
   * RAM Memory 8
   * Graphics Card 7
   * Sound Card 6
   * Motherboard 10
   * HDD (Hard Disk Drive or Solid State Drive) 5
   * Removable Media (DVD / USB / Flash) 2
   * Network Interface (Ethernet /Fiber / Wi-Fi / Bluetooth) 3
   * Monitor, Mouse, Keyboard 4
   * Portability / Mobility 1

**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*** | Harjaspreeet |
| **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*** |  |