Assignment 1

CS270 Spring 2017

Due February 8, 2017 at 11:59pm

# Computer Comparison Shopping

As a computer science student, many people around you expect you to be knowledgeable in purchasing computers. In this assignment, you are tasked with finding three different computing setups that are appropriate for a given client. You will need to imagine what your client’s needs are, and find them an appropriate machine within their budget. It may be helpful to ask people in your own life who have similar computing needs what they would want and need. There are three clients to choose from.

You must choose one and only one of the following clients for this project.

## New Grandmother

This client needs a computing system that will allow her to pay bills online, occasional document creation and editing, do email correspondence, social networking, online shopping, and most importantly Skype with her granddaughter, daughter and son-in-law who live in a different state. She requires something portable since she does not currently have a dedicated space for her computer.

**Budget: $900**

## Travel Journalist

This client travels the world for work and needs a computer that can withstand a beating. This client sometimes travels without a photographer and must provide images for stories. The client has a good camera that takes SD cards and would prefer a laptop that has an SD card slot. This client is often irked by the lack of wifi in airports and other places where wireless phone signals are prevalent. If possible, a portable wireless access point would be a nice addition to the setup.

**Budget: $1500**

## Young Professional

This client works as an analyst for a government agency and likes to spend free time taking videos of his adventures with his GoPro camera. As someone who works for the government, he is very concerned with the privacy of his own data and would like a computing set up with the latest security safeguards. The HD videos he makes take up a lot of storage space and he will need several TBs of storage. A high quality display and graphics card, and professional level video editing software are needed for viewing

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and editing his videos. Portability is not a concern.

**Budget: $2300**

# Assignment Details

You are an excellent comparison shopper and will choose three (3) different setups within the budget before recommending one to your client. While shopping, be sure to consider what elements of a computer system will satisfy your client’s needs best. Some things to consider are: large screen real estate, portability, battery life, weight, sound system/headphones, mouse, printer, touch screen, keyboard, external hard drive for backups, protection plan for accidents, security features, ruggedness, ease of use, needed software, and software features. It is to your advantage to use a significant portion of the budget and to do so wisely. The average price of your setups should be at least 80% of your budget. Remember, your clients want to get the most for their money and have already decided that they want to spend that much money.

A computing setup consists of all the elements needed to effectively use the computer system and satisfy the client’s computing needs. You may choose a desktop, laptop or tablet, or any combination of these items, as long as you can justify the need. You can assume that you do not have a monitor, mouse or keyboard from a previous machine to use, so you must purchase these to complete a desktop system. You are also welcome to include peripheral devices and accessories that would enhance the computing experience for the client.

For each system, you will note the technical specifications of the following aspects of the system in a table:

* laptop/desktop/tablet (model name, manufacturer)
* processor (model name, manufacturer, speed, number of cores)
* coprocessor or GPU (if applicable) (specs similar to processor)
* RAM configured with the machine (list any additional RAM purchased separately on another line)
* main storage drive (capacity, speed, manufacturer)
* OS (include in purchase price if needed)
* Other software (e.g., Microsoft Office, anti-virus software, video editing software, web hosting service, backup service)
* For laptops and tablets: size, weight, battery life
* For desktops make sure to include: monitor, keyboard, mouse
* Other accessories: cases, headphones, external storage devices.

Your write-up will consist of five (5) paragraphs, three (3) tables, and a references section. The document should be organized as follows:

1. A written description of the computing needs of your client. Be specific about what *THEY* need to be productive.
2. Paragraph describing setup 1. Be sure to explain how this meets the needs of the client and createsa productive computing experience.
3. Table of setup 1.
4. Paragraph describing setup 2. Be sure to explain how this meets the needs of the client and createsa productive computing experience.
5. Table of setup 2.
6. Paragraph describing setup 3. Be sure to explain how this meets the needs of the client and createsa productive computing experience.
7. Table of setup 3.
8. A final paragraph discussing the pros and cons of each setup, which setup you suggest the clientchoose and why that one meets the needs of the client best. Be sure to mention any reviews or technical resources consulted to make this decision.
9. A bibliography of the resources used to make the recommendations and final suggestion. Thesereferences can be product reviews, discussion boards, articles about specific technologies or products, or specification information from the manufacturer. You will be evaluated on the quality of these sources. You will list these sources in a formal bibliography.

## Additional Details

* The items you list in your setups must come from **at least five (5) different manufacturers** (e.g., Apple, Dell, HP), collectively. All of the items in one setup may come from fewer than five manufacturers, however at least five must be represented across the whole set of items in your tables.
* **All items must be pre-built and available for purchase through at least one of the following vendors: Apple, Best Buy, Newegg, Dell, HP, Amazon, Microsoft store**.

# Submission Details

This is an **individual** assignment. You will submit a **single document in PDF format** that contains the tables, write-up and references. You will want to use a document creation program, like Microsoft Word, to create a professional looking document. There are many tutorials online on how to create, edit and format a table in these programs if you need guidance. The total length of the document should be at least five (5) pages and no more than ten (10) pages. There is an MLA document template provided that you should use for this project. Your submission should match the margins, formatting, font, font size, and citation style as described in the template. Your final document should be uploaded to D2L in the Assignment 1 dropbox.

# Grading Guidelines

You will be assessed on the quality of your writing, correctness of your tables and arguments, and your adherence to the instructions.

# Sample Table

For each computing setup you will create a table with the information described above, and formatted in the following manner:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type | Model | Manufacturer | Other details | Cost | Product Link |
| Laptop | 13” Mac-  Book Air | Apple | 2.96 lbs. | $1099.00 | [http://store.apple. com/us/mac/family/ macbook-air](http://store.apple.com/us/mac/family/macbook-air) |
| Processor | Core i5 | Intel | 1.3 GHz, 2  cores | – | vendor configuration |
| RAM | LPDDR3  SDRAM | – | 4GB,  1600MHz | – | vendor configuration |
| Storage | – | – | 128GB Flash | – | vendor configuration |
| OS | OSX | Apple | Mountain  Lion | – | vendor configuration |
| Display | 27” Thun-  derbolt Display | Apple | – | $999.00 | [http://store.apple.](http://store.apple.com/us/product/MC914LL/B)  [com/us/product/](http://store.apple.com/us/product/MC914LL/B)  [MC914LL/B](http://store.apple.com/us/product/MC914LL/B) |
| Keyboard | Wireless Solar Keyboard K750 | Logitech | – | $59.95 | [http://store.apple.](http://store.apple.com/us/product/H7332LL/A)  [com/us/product/](http://store.apple.com/us/product/H7332LL/A)  [H7332LL/A](http://store.apple.com/us/product/H7332LL/A) |
| Mouse | Magic Mouse | Apple | wireless | $69.00 | [http://store.apple.](http://store.apple.com/us/product/MB829LL/A)  [com/us/product/](http://store.apple.com/us/product/MB829LL/A)  [MB829LL/A](http://store.apple.com/us/product/MB829LL/A) |
| Battery  Charger | Battery  Charger | Energizer | – | $21.98 | [http://www.bestbuy. com/site/Energizer---](http://www.bestbuy.com/site/Energizer---)  Battery-Charger/  1262068.p?id=  1218273566593&skuId=  1262068 |
| Support | AppleCare  Protection  Plan | Apple | auto-enroll | $249.00 | [http://store.apple.](http://store.apple.com/us/product/S3136LL/A)  [com/us/product/](http://store.apple.com/us/product/S3136LL/A)  [S3136LL/A](http://store.apple.com/us/product/S3136LL/A) |
| Total |  |  |  | $2497.93 |  |