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Professor Torres

8/30/2025

IT 100

Lab 2

- Copy parts A, B, and C from Canvas

Part A:

- Go to the website for Best Buy
  - Choose a Business Computer (with similar specs as our campus lab computers)
  - Choose a Computer that cost at least $1,000 dollars
  - Ensure that you choose one with enough specs
  - Describe why you chose this computer
- Go to the Newegg website
  - Research a motherboard that is similar to the Best Buy computer
  - Research memory requirements and CPU requirements for the motherboard
  - Research power supply and Tower requirements for your motherboard
  - Complete the spreadsheet with your specs
  - Discuss why you chose the specs that you did

- **Part A:**
  - Dell Desktop - Intel Core Ultra 7-265 - 32GB Memory - 2TB SSD
  - Model number: DECT1250-7104BLK-PUS
  - Price $1,099.99
  - I chose this computer because of our lab computers this has twice as many specs and twice as powerful. The lab computers have i5 where this has a i7 and this has 32gb of ram where the lab computers have 16gb of ram and also this has 2TB SSD where the lab computers have only 500 GB SSD. As in the instructions it said to get a computer that is at least $1000 dollars and this computer meets those requirements and also is very cheap compared to the others I looked at.
- Part A 2:
  - Motherboard: ASUS B760M-AYW
  - Memory DDR4, CPU, Intel Socket LGA1700
  - Power supply: standard PC power supply
  - Tower: mATX compatible
  - I chose these specs for my custom-built PC because these are similar and better than the preconfigured PC I chose. The custom-built PC is also cheaper

than the preconfigured PC. The processor is also more powerful than the preconfigured PC, you can also add up to six storage devices for the custom built one, when you are only limited to 2. So building a computer would be cheaper than buying a preconfigured one and the the custom would also be more powerful than the preconfigured PC.

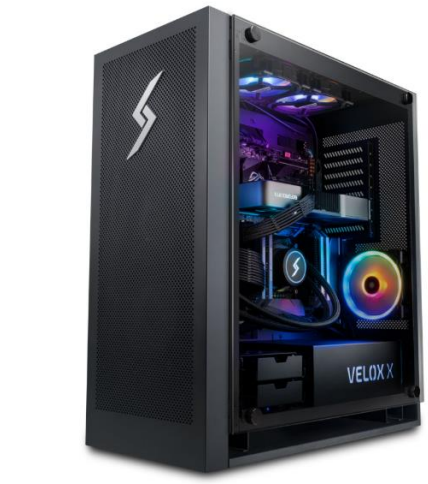
Home Computer				
Parts	Model	Specs	Max Specs	Cost
Case	DIYPC DIY-mATX06-Wood Black USB3.(	atx micro tower		67
Motherboard	Asus B760M-AYW WIFI	LGA1700		99
Processor	Intel Core Ultra 7 265	5.3	14th gen i9	359
Memory	KingSpec 64GB	2x32	96	125
HD/Storage	ONEBOOM X400 2242 2TB	2TB	six storage devices	130
Power Supply	MSI MAG A550BN 550 W ATX12V			58
Keyboard/Mouse	Logitech MK270 Wireless Keyboard And Mouse Combo For Windows			30
OS	Microsoft Windows 11 Home (USB)		microsoft windows 11 er	139
Additional Items				
Custom Built				1007
Similar Built Computer	Dell Desktop - Intel Core Ultra 7-265 - 32GB Memory - 2TB SSD			1099.99

Part B:

- Go to the Digitalstorm gaming website
  - Choose and configure a Gaming Computer (Your dream gaming computer)
  - Money is no object for this exercise
  - Ensure that you choose one with enough specs
  - Describe why you chose this computer and specs
- Go to the Newegg website
  - Research a motherboard that is similar to the Digitalstorm computer
  - Research memory requirements and CPU requirements for the motherboard
  - Research power supply and Tower requirements for your motherboard
  - Complete the spreadsheet with your specs
  - Discuss why you chose the specs that you did

- Part B:
  - Dream Gaming Computer
  - I chose a Mid tower for the chassis because I didn't want a small nor a big, huge chassis, Processor is intel core i9 14900k, 6GHZ, 23 core, 14th generation. There was one above this and it was more powerful but personally I do not game that often so I chose the one that would work well if I did and if I needed it to do very high-power demanding tasks. Graphics card I chose the RTX 5080 16GB, with 32GB DDR5 memory, with three sets of storage that are 2TB, I also chose a external dvd player because I have a lot of DVDs and cds that I want to watch that I have never seen before and also I think it is

good to have old technology still at the house if I ever need it. I also upgraded the sound card to a AE-9 sound card. For the cooling I chose a triple fan, also added exotic cable management with a black cable combo. I chose no internal lighting and chose standard factory chassis Fans. I also chose OS Boost. The reason I chose these specs is because I am not a dedicated gamer but I like to mess around with computers so I have a powerful system that can handle all the activities that I would like to do with systems. I did not fully go with all the best, so I chose to be in the middle that also has enough power and not too little. The price for this build is $4,003



ɟe above may not represent your specs, please refer to details below.

ernal Chassis › Core Components › Storage / Connectivity › Multimedia › Engineering

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- Part B 2:
  - Newegg Pc

Home Computer				
Parts	Model	Specs	Max Specs	Cost
Case	DIYPC DIY-ATX08-Wood Black			75
Motherboard	ASUS PRIME B760M-A AX6			220
Processor	Intel Core i9-13900K	LGA1700	14th gen intel core i9	544
Memory	DDR5 RAM GIGASTONE Black Gaming	32GB	192GB	115
HD/Storage	Team Group MP33 M.2 2280 2TB PCI	2TB	5TB	106
Power Supply	MSI - MAG A1000GL PCIE 5	1000W		149
Keyboard/Mouse	Logitech MK540 Wireless Keyboard Mouse Combo			50
OS	Microsoft Windows 11 (USB)			232
Additional Items				
Newegg Custom PC			Total Cost	1491
Similar Built Computer			Cost	4,003

  - I chose these specs because these are similar to the digital storm PC. Or even better but at the lower end for price but almost of the same specs. I do not need a high-end PC, and these specs do the job that I want to use my PC for

Part C:

- Given the above research, answer the below questions in detail:
  - is it cheaper to build your pc or to buy it (why/why not)
  - what did you learn after completing this lab?

- Part C:
  - From these two comparisions, It is cheaper to build your own PC rather than buying one. For both examples for CPU, I used the same specs or even better CPU and adding everything up it still is cheaper than buying one. The one thing is if time allows it then it's better for you to build your own but if you do not have time then buying one is better and if you are ready for that financial burden.
  - The few things that I learned after this lab is that there are so many components for PC building, but you must be careful if your motherboard supports a certain type of components. Which I did not know before this class. I also learned that you could build a really extreme PC or just a regular one that can handle your business. So in summary, building it is going to cost you less than buying a PC. Very good to know for future references.

Part D:

- Setup a GitHub account: https://github.com/
- Create a public/private key with putty (puttygen) (ensure you create a passphrase)
- Upload your public key to your GitHub account
- Provide your GitHub username **(I am setting up a secure lab environment for you to log onto using putty)**

- GitHub Username: AkaalSaheGS

- Add notes and screenshots
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- Can you reproduce the lab with the questions and your screenshots with notes?
- If your boss asked you for this, did you provide the answer with context?