**Final Project Two:**

Hardware Components-

1. Examine the business’s issues to determine specific hardware requirements. Based on these issues, what are the major categories and components of hardware that should be considered? Identify each of the applicable requirements (hard drive storage, video cards, etc.), being sure to cite specific examples wherever appropriate.

* Major components that should be considered when thinking about upgrading your current system need to focus on future relativity of the platform you wish to create. To create a powerful photo editing computer that will last the company long term we will focus on the newest technology that also allows for future expansion devices. I have gone through and done research on the best available product for each category needed in your upgraded computers.

1. Then, compare and contrast the various options for meeting the requirements. Be sure to cite specific evidence from the component specification fact sheets to support your evaluation. What are their functional strengths and weaknesses? How do they compare in terms of cost and maintainability?

* Hard Drives will be the better option for your storage device needs. Solid State Drives are more expensive and do not have the storage capabilities of a Hard Drive. Since we are not using laptops in your office for content creation, the Hard Drive is the clear choice.
* Windows 10 for the Operating System instead of using Mac or Linux. Although you have employed many millennials, depending on them to fully understand the shell commands of Linux could be too demanding, and cause a serious lack of work being completed due to an inability to work on the new OS.
* Using an AMD processor will save you some money, without cutting into the quality of the CPU. The comparable processor by Intel would be the i5 9600k, the Ryzen processor has 8 core processing and 16 threads capabilities versus just the 6 cores and 12 threads of Intel’s i5.
* Using an Asus Prime motherboard along with your processor is recommended and gives you full compatibility with the AMD processor. The Asus motherboard has 4 memory slots for DDR4 and 64GB of maximum supported memory. 1 x PCIe 3.0 x 16, 1 x PCIe 2.0 x 16, and 3 PCIe 2.0 x 1 for expansion slots and a Realtek ALC887 sound card on board.
* An EVGA power supply is recommended over using an ATX power supply since we are not using an ATX motherboard. EVGA has been rated well with AMD and the recommended 650w power supply will provide the motherboard with the power and security it needs.
* By also purchasing a CPU Cooler you will be protecting your computers from overheating. The Corsair H100i v2 will aid in assisting your motherboard cooling systems to prevent any damage from happening. The H100i v2 uses the latest in liquid coolant technology and comes with adjustable cooling performance for your computer needs.

1. Compose a final list detailing all of your specific hardware recommendations for your client. Be sure to logically justify your proposal as the best possible choice for meeting the business requirements.
2. CPU- AMD Ryzen 7 2700 ($294)
3. RAM- Corsair Vengeance LPX 3000MH ($99)
4. Graphics Card- EVGA GeForce GTX 1070 ($249)
5. Power Supply- EVGA SuperNova G2 650W ($60)
6. Motherboard- Asus Prime B-450 Plus ($114)
7. CPU Cooler- Corsair H100i v2 ($185)
8. Shell- Corsair Carbide 200R ($99)

By using these suggested hardware specifications, you would be spending $1,100 on a quality build for your creative team and support staff to use. This would allow wiggle room on how many computers you could have available for employees and leave plenty of room for additional devices that will need to be added in the future. If you decided every employee would need their own work station this would put your technology budget around $11,000 for hardware. Leaving plenty of cap space for software and network needs.

References:

<https://turbofuture.com/computers/best-x370-am4-ryzen-motherboard>

<https://turbofuture.com/computers/Build-Photo-Editing-PC>

<https://www.newegg.com/Product/Product.aspx?item=N82E16813119138>