**MIS 310 Week 2 Homework (30 points)** Name: Megan Leonard

You will not be given credit for answers that are copies or near verbatim transcripts – please use your own words and document sources where appropriate using proper APA guidelines. Apply the principles learned in this chapter (chapter 2) or previous chapters to answer the questions for this assignment.

**Chapter 2 Learning Outcomes**

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| * Identify and briefly describe the functions of the primary components of a computer. * Identify the characteristics of various classes of single-user and multiuser computer systems, and discuss the usage of each class of system. * Identify some of the challenges and trade-offs that must be considered in implementing a data center. * Define the term “green computing” and identify the primary goals of this program. * Identify the two basic types of software. * Define the term “sphere of influence,” and describe how it can be used to classify software. * Identify and briefly describe the functions performed by the operating system, utility programs, and middleware. * Discuss how application software can support personal, workgroup, and enterprise business objectives. * Identify programming languages commonly in use today. * Identify several key software issues and trends that have an impact on organizations and individuals. |

**Week 2 Review Questions (10 points)**

Answer the following questions in one or more paragraphs using proper APA format as required**:**

1. [2 points] How does clock speed govern the execution of instructions by a computer?

The clock speed governs the execution of instructions using gigahertz to measure the speed the steps are completed as per instructed.

1. [2 points] Define the term “green computing,” and state its primary goals.

Green computing is when organizations are concerned with how the computing devices affect the environment and their efficiency. Its primary goal is to eliminate the toxicity of the products and make them safer to dispose of while lowering the power-related costs of the devices.

1. [2 points] Identify and briefly discuss the three spheres of influence used to identify the scope of problems and opportunities that software addresses.

The three spheres of influence are personal, workgroup, and enterprise. The personal sphere is used to help the individual users with their needs. This helps people increase the quality, amount, and effectiveness of their work making it a less daunting task. Workgroup sphere helps members of a workgroup with completing the common goal of the group. Enterprise sphere supports and organization and how it interacts with those around it.

1. [2 points] The Mac OS X supports dual booting. What is this, and what benefits does it provide?

This is when two platforms are fun simultaneously letting the user pick which one, they want to use such as Mac running Mac OS X and windows at the same time. This is beneficial as each platform has a different means of doing tasks such that some programs work better with windows than Mac and vice versa.

1. [2 points] What is open-source software? What are the benefits and drawbacks for a business that uses open-source software?

Open-source software is when the software is free with its source code and not hidden behind copyright. This is beneficial as multiple people can work with it which helps improve the code while the drawback is that the code is open to everyone, so it puts all users on the same starting field including the creator. This means that id a rival company uses their source code then they would be on the same floor regarding their company’s code.

**Week 2 Critical Thinking Exercise (10 points)**

Read the following and answer the questions in one or more paragraphs using proper APA format as required**:**

*Moving to Green Computing*

*Your organization is a leader in the development of renewable energy sources based on enhanced geothermal systems and is viewed as a champion in the fight to reduce carbon emissions. The organization employs over 25,000 people worldwide and operates three global data centers, one each in the United States, Europe, and Southeast Asia. The CEO has asked all her C level executives for input on a proposed strategy to become a leader in green computing.* [2 points] Identify some of the advantages of running a virtual team such as this. What are some of the keys to success when working with a virtual team?

Running a virtual team such as this allows the three data centers to interact and exchange the ideas and plans of the green computing. They can each discuss how their branch can use green computing and help with any company wide ideas that are implemented.

1. [2 points] In what ways is a move toward green computing consistent with your organization’s mission of developing renewable energy sources?

The mission of developing renewable energy sources will help reduce the carbon emissions and could be implemented in the computing devices letting the computers be powered by the more environmentally friendly power source. By changing the power for the computer, they will be able to do green computing and work on making the other parts greener as well.

1. [2 points] One green computing proposal is to consolidate the three data centers into one. Discuss the pros and cons of this approach.

Pros would consist of being able to have the centers on the same page, faster implementation of ideas, and company wide changes. Having the three data centers consolidate into one helps them discuss their ideas together and what changes are possible based off the laws and regulations of each located area. The cons would be that the proposal will take longer to decide as there are different regulations for each area. They may also focus on a problem that two have but the third does not. Each location has its own environment, rules, and climate which needs to be factored into any proposal they decide as the three will not be able to follow a single proposal for each of the data centers.

1. [3 points] Identify two additional tactics the organization might take to accelerate its move toward green computing?

Two other tactics the organization might take is to consider the products going into the computer builds themselves and how their suppliers handle the green initiatives. For example, if one supplier is known for dumping faulty parts in a pile or burning some parts letting out harmful chemicals into the air then it would be better to change to a supplier that has their own green practices in play as the parts are more likely to be less harmful to the environment this way. They can also make sure that the host for the computers is done using environmentally friendly means such as coolant for the systems being usable while not being damaging to the environment.

1. [3 points] Identify the pros and cons or any issues associated with your proposed tactics.

Pros would be that the company would be able to protect their image and gain customers based off the supplier change. Though this may end with them having to pay a bit more based off the new supplier. For changing the computer housing it would be able to help start the green computing project as it would host the computers in a green way. It could lead to some slower work based off the changes and how it affects the systems and the host.

**Week 2 Case Study (10 points)**

Read the following and answer the questions in one or more paragraphs using proper APA format as required**:**

***Vivobarefoot Upgrades Technology Infrastructure***

*Vivobarefoot is an innovative shoe company that recently undertook a major review of its technology infrastructure to determine what changes needed to be made to support and accelerate the company’s already rapid growth. Vivobarefoot’s success is connected to the growing popularity of barefoot or “minimalist” running. In fact, the company lays claim to the first minimalist shoe, originally produced in 2004, offering an ultrathin, puncture-resistant sole that provides “maximum sensory feedback and maximum protection.”*

*The specialist shoe company is headquartered in the United Kingdom, but also has a team based in China, where all of its manufacturing takes place. Vivobarefoot sells it shoes online, through a variety of partnerships around the world, and in its store in Covent Garden, a popular shopping district in London. According to founder Galahad Clark, the company went from selling 30,000 pairs of shoes per month to over 300,000 per month—over the course of just five years.*

*As with many companies that experience rapid growth, over the years, Vivobarefoot had acquired a hodgepodge of hardware and software that was no longer meeting its needs. According to Damian Peat, global operations director for the company, “We were working with some pretty archaic systems. We had three servers in our basement all running Windows Server 2003 and backed up to tape, and I would worry a lot about the chance of something not working.” Vivobarefoot employees were also using multiple versions of Microsoft Office, and staff in China were forced to use personal Gmail accounts because they could not reliably access the company’s Microsoft Exchange email server in London.*

*Managing the variety of hardware and software systems was becoming time consuming and costly. And, like thousands of other companies, Vivobarefoot was also faced with the reality that it would soon be forced to migrate away from Windows Server 2003, as Microsoft was ending its support of the outdated server operating system. According to Peat, “Upcoming end of support for Windows Server 2003 gave us concerns around security patching and mounting management costs, and we already had significant risk around data security. … My priority became to get everything onto one safe, reliable platform as soon as possible.”*

*After a review of available technologies, Vivobarefoot chose to replace Windows Server 2003 with Windows Server 2012 R2 and Hyper-V hypervisor software, giving the company both physical and virtual server capabilities, including the capacity the company needs to host file servers and business-critical applications, such as accounting software and stock management systems. The company also migrated to Office 365 in both its London and China offices. Office 365 had particular appeal for the company because, as a global cloud service, it is easily accessible in China, where staff are now more easily able to communicate—using Vivobarefoot email addresses rather than Gmail accounts. Vivobarefoot staff are also making use of Microsoft’s OneDrive for Business, where they can store, share, and sync files. According to Peat, with these cloud-based upgrades, the company “can ensure everyone can see the same documents and access them whenever they need, which is really beneficial.” As part of a phased process, the company is also moving many employees to Windows 8.1 laptops and Surface Pro tablets.*

*As part of its efforts to streamline its IT infrastructure at all levels, Vivobarefoot has also moved away from tape backups to a remote hosted back-up service, and the upgraded server technology means that many other system management tasks have been simplified, as well. Data security has been improved, and IT staff have gained the ability to manage the company’s servers remotely. While Vivobarefoot still has work to do to migrate all of its technology to the same platform, the company’s efforts have gone a long way toward providing the company with an updated and more rational arrangement of hardware, software, and cloud computing.*

1. [3 points] What are some of the competitive advantages Vivobarefoot gained through its infrastructure update?

By updating their infrastructure, Vivobarefoot now has better data security and can run faster. The better security means the less amount of break ins they must stop and less likely for their projects to be lost meaning they are ahead of the competition. They also are now able to better connect with their other branches in China and London making it easier to communicate.

1. [4 points] One ongoing concern for Vivobarefoot is the quality and speed of the Internet service available to its office in central London. Given that, do you think it made sense for the company to move more of its IT services to the cloud? Go online and do some research about Microsoft’s Office 365 product. What options does it offer for working offline if Internet service is not available? Does that change your opinion about Vivobarefoot’s shift to the cloud?  
   I think that it is best to have physical backups as the cloud could have problems. After researching the offline and cloud I have found that most people have suggested to keep the main files on their computers. For a team working on a document, if more than one person is on it at a time, it will not autosave meaning that if something happens, they could loose a lot of work if they are not manually saving enough. There was also a report that at a time Microsoft has trouble with login authentications meaning people could not access the cloud and for companies that could be harmful if they save a lot of their services and papers there.
2. [3 points] Estimates for the number of computers still running Windows Server 2003 range from hundreds of thousands to several million—even though Microsoft has stopped supporting the product. What are the risks for companies that continue to use software or hardware technology after a vendor ends support for it?

The risks that come from using outdated software and hardware comes in multiple forms. From an online standpoint, they will not be able to do everything that the newer products can do such as drawing pictures in Microsoft documents. There is also the risk of being hacked as the security for the system will not be updated meaning once the hacker has an in, their tunnel will not be filled to block them from accessing once more. The hardware problems come with how everything runs. The systems using the hardware are likely to slow down and not keep up with the demand the company has for it. There is also the chance that it will break meaning they will loose everything that was on that hardware as they cannot easily replace it with the same hardware and the makers are likely not going to help fix it.

SOURCES: “Frequently Asked Questions,” Vivobarefoot, “http://www.vivobarefoot.com/us/customer-services/frequently-asked-questions” \l “FAQST1” www.vivobarefoot.com/us/customer-services/frequently-asked-questions#FAQST1, accessed December 11, 2015; Ho, Geoff, “Shoe Manufacturer Vivobarefoot to Step It Up to Fund Expansion Plans,” Express, May 3, 2015, www.express.co.uk/finance/city/574639/Shoe-manufacturer-Vivobarefoot-raise-money-fund-expansion-plans; Worth, Dan, “Windows Server 2003 Migration Helps Shoe Seller Vivobarefoot Put One Foot in the Cloud,” V3.co.uk, April 17, 2015, www.v3.co.uk/v3-uk/news/2404420/windows-server-2003-migration-helps-shoe-seller-vivobarefoot-put-one-foot-in-the-cloud; “Pioneering Footwear Brand Unites Teams for Secure, Remote Working,” Microsoft, www.microsoft.com/en-gb/smb/customer-success-stories/vivobarefoot-unites-global-teams, accessed December 11, 2015; Curtis, Joe, “How Vivobarefoot Escaped Windows Server 2003 in IT Upgrade,” IT Pro, July 8, 2015, www.itpro.co.uk/server/24948/how-vivobarefoot-escaped-windows-server-2003-in-it-upgrade.