Online Shopping"  Please respond to the following:

* Imagine that you are creating a Website that will allow customers to shop and sign up for health insurance. Select two (2) features of the Java programming language that you would use in order to build the Website in question. Provide a rationale for your selection.
* Suppose the Website mentioned in Part I of this discussion is being developed with a team of programmers, and one of the programmers does not want to use comments. Appraise the importance of using comments for the development of the Website in question. Provide a rationale to support your response.

Two of the feature of java which is good for web development are its efficiency and the availabilities of the libraries. Health care website is a complicated task which needs a better programming language. Java compilers works fast which is suitable for this site and the Availability of libraries can solve all the problems when it comes to shopping for healthcare plan. In addition, Java has a GUI feature which can simplify the interface between the user and the website.

Health care is the most complicated task to do and it was built by a lot of team of programmers. The lines of code were about five million which make it impossible to be done by one person. Therefore, comments are needed because they help the person reading the code and better understand the intent and functionality of the program. This simplified the job of the teams.

"Unbreakable Passwords"  Please respond to the following:

* Describe four (4) best practices that you use when creating a strong password. Then, provide three (3) examples of poor passwords and suggest the changes that you would make to improve the passwords' strength. Revise each password as a strong password. Then, explain the steps you took to create strong passwords from the poor passwords.

A strong password must have the following:

* It should have a minimum password length of 12 to 14 characters.
* It must should be in lowercase and uppercase of the alphabetic characters, should also include numbers and symbols.
* Do not use the data which is associated with the user.
* Do not use the same password twice.

The examples of bad passwords are the following

* Any dictionary hacking tool that uses an English dictionary list can easily find words that are contained in them. Therefore, do not use word that can be found in a dictionary
* The use of short words less than six character.
* The use of passphrase which can be easily guessed by anyone.

The steps which are needed is to used use strong word and combine them with upper and lowercase words. In addition, use long word with more than six characters and make the passphrase which cannot be guessed.

1. Don't use any name that can be found in a dictionary of names.
2. If you're allowed to, include at least one special character (like %?!@#)
3. Include at least one numeral.
4. Include at least one capital letter, preferably not the first letter.
5. Don't use any numerals that relate to your birthday or other personal information.
6. For ultimate security, use the maximum number of characters allowed.
7. Change your password regularly - at least once a month.

* Suppose you have a 1 terabyte (TB) hard drive on which you are going to install Linux. Determine the partitions that you would create. Suggest how you would allocate the disk space to those partitions. Provide a rationale for your response.

Hard drive partition is a process of separating a section of the hard drive from other segments. It divides a computer hard drive into different drives or different portions. I would start by,

1. /root. I would allocate 100GB which is enough for the root directory.
2. /home. I would allocate 60GB which is enough for the home directory
3. /data. I would allocate 200GB because the data can easily need enough space because enough room for growth is needed.
4. /swap. I would allocate 40GB just for the swap directory.

* Give one (1) example of a situation where one might create partitions on a Windows machine. Explain why an individual would do so.

A person can do so to separating window operating system from Linux and to make the hard drive run smoothly and more efficiently.

"Multi-User Operating System (OS)"  Please respond to the following:

* Examine the major advantages and disadvantages of a multi-user OS. Determine whether a multi-tasking operating system is the same as a multi-user operating system. Provide a rationale for your response.
* Determine whether or not Windows (e.g., Vista, 7, 8, and 10) can be considered a multi-user operating system. Provide a rationale for your response.

A multi-user operating system differs from a single-user system on a network in that each user is accessing the same OS at different machines. The advantages of a Multi user are

1. Multi-tasking capabilities which is the execution of many different tasks simultaneously.
2. Its abilities to always many users at the same time using the operating system.
3. Printing jobs in the office or library can be best handled by multi user operating system.
4. The OS simulates real time performance by task switching.
5. In Linux, multiple people can use the computer simultaneously.

Disadvantages are

1. Data on the computer is not secured because of sharing the computer with multiple users.
2. Virus can be easily spread easy if one computer has which move from computers to the other.
3. Sensitive data on the computer can be shared to other users also.
4. Having multiple accounts on single computer is a bad idea.

Since the technology is growing at a fast pace therefore, almost all of today's operating systems can handle the multiple user like window 7 and up.

* e: isnt **windows multi**-**user**. Early Operating Systems were single-tasking, where an application was run as a portion of the single task. Then the application finished, and the system reboots. Later, **OS** developed into **multi**-tasking, able to execute many different tasks simultaneously.J

A **multi** -**user operating system** is used for the **multi users**. The **OS** simulates real time performance by task switching. An **operating system** that is designed for network use. **System** manages **multiple** tasks simultaneously **System** manages **multiple** requests to same resource concurrently.

An **operating system** is considered "**multi**-**user**" is if allows **multiple** people to use a computer and not affect each other's 'stuff' (files, preferences, etc.). In **Linux**, **multiple** people can even use the computer simultaneously.

Is the one in which

Booting and Editing"  Please respond to the following:

* Describe two (2) major differences between the boot processes of Linux and Windows 7. Explain whether or not grub can be used to boot Windows. Provide a rationale for your response.
* The vi editor is quite different from a word processor like Word. Determine the major benefits that you believe an editor like vi provides to a Linux system administrator.

Two of the major differences between the boot processes of Linux and Windows 7 are Windows 7 boot from a primary partition of the hard disk. Linux on the other hand can boot from either a primary partition or a logical partition which is in an extended partition of the hard disk. Moreover, Windows 7 boot from the first hard disk of the computer while Linux can easily boot from any hard disk of the computer.

Window 7 ‘s boot loader is BOOTMGR. Therefore, GRUB does not work with window 7 because it is different in terms of table which are setup in grup.

Vi is a Linux screen editor which treats the computer screen as a window into the file. Different parts of the file can be seen by moving the window around. System administrator can move the cursor to the location on the screen where they want to make a change easily without a problem. In addition, it updates the screen to reflect changes that was made in the file.

"The GUI versus the Command Line"  Please respond to the following:

* Use the Internet to research the long standing debate of the "GUI versus the Command Line". Based on your research and what you have learned so far in this class, provide your opinion on the matter. Explain which one (1) you believe is more powerful. Justify your response.
* The graphical user interface is a type of user interface that allows users to interact with electronic devices using graphical icons while the command line is a text interface for the computer. It's a program that takes in commands, which it passes on to the computer's operating system to run. For me I think GUI is more powerful than command line in many ways.
* The experience I had with GUI was great because it made everything easy by laid them out in front of me. In addition, it simplified my tasks because I don’t have to remember any command to do the work like print a document. Moreover, it works without prior knowledge of the system. A user interface which is well designed can be used by anyone without any problem. Moreover, the backend makes it powerful than command line because it takes a lot of code to build GUI.
* The installation went straight forward for me because I followed the instruction on the link which was provided which was  [http://www.easyphp.org](http://www.easyphp.org/). I downloaded and installed a Devserver for Windows 7/8/10 completely which is an open source and ready-to-use development environment. In addition, it is portable, modular, fully configurable and easy to update and extend. It included PHP, Apache and MySQL. I found it easy to used once everything was done. I could run my MySQL on the the main screen by one the **MySQL Administration : PhpMyAdmin 4.7.0 and different staff on databases.**

When to Script?"  Please respond to the following:

* Scripts can be great tools. Describe one task where it would be suitable / efficient to use a script and another task where it might not be. Provide a rationale for your response.
* Give one (1) example of a situation where the use of a regular expression is not appropriate and explain why it is not appropriate.

A script is a program or sequence of instructions that is interpreted or carried out by another program rather than by the computer. Scripts is an automate frequently execution of tasks. It can be used if you want to perform a certain task every day. It can be done by putting command in a script and run it. It cannot be a good idea to be running a script if you want to do different new task sometime

Regular expretion are sets of symbols and syntactic elements used to match patterns of text. Regular expressions tend to be easier to write than they are to read which make the hard to give to someone to use them. Therefore, it is not good to write and give to someone to use them which can be a complicated issue.

Write an application that can hold eight integers in an array. Display the integers from first to last, and then display the integers from last to first. Save the file as EightInts.java. Raw. EightInts.java. public class EightInts {. public static void main(String[] args). {. final int intagerNum = 8;. int[] intagers = {3, 6, 1, 4, 7, 9, 2, 8};.

This is less of a problem if you are the only one who ever needs to maintain the program (or sed routine, or shell script, or what have you), but if several people need to watch over it, the syntax can turn into more of a hindrance than an aid.

http://www.bsd.org/regexintro.html

Database management systems have evolved over the years to be able to perform multiple transactions and enable multiple users to access databases simultaneously. However, database management systems must be able to manage transactions from multiple users and avoid potential problems associated with transaction management.

* Select one (1) of the transaction management or concurrency control methods, and explain the primary manner in which the chosen method is used in database management systems. Describe the impact and alternative of not having the chosen method available to manage concurrency.
* Describe one (1) scenario in which the selected transaction management or concurrency control method is needed. Examine the significant ways in which business operations would have to change if concurrency management methods were not available.

Concurrency control is a systematical way of managing the correctness of two or more database transactions that access the same data. It prevents the problem of data integrity. The method which I choose is the Commitment ordering. It is used in database managing system because of its conflict serializability and high-performance. Not having Commitment ordering would result in transaction disorder.

Commitment ordering is needed so that there is a chronological order of commitment events of transactions. If Concurrency is not there in the business, set of transactions would not be execute concurrently. It is there to resolve the conflicts among transactions and to ensure that the overall effect of their execution is correct.

"Packet Sniffers"  Please respond to the following:

* The use of packet sniffers by employees is forbidden in many organizations. Provide your opinion as to whether or not you agree with this policy. Justify your response.
* Provide one (1) example of a situation where the use of a packet sniffer might be justified. Explain why you believe it would be okay to use a packet sniffer in this situation.

A sniffer is a tool that intercepts data flowing in a network. It is a good idea for the organization to forbid packet sniffers by employee because some of them can View the data that the computer on the network sends over the internet. This may result in the employee hacker to see what websites the employees are viewing, what there are doing on them and used it to their advantages.

.Most of the employees spent most of the productive time doing there staff on the internet It can be justified if the employer wants to see if the employees are doing their job instead of using the computer at the company time to do their personal business.

"Firewalls"  Please respond to the following:

* Explain at least two (2) differences between packet-filter firewalls and proxy filters. Provide one (1) example of a situation where you might need to use each type (two examples total).

Firewalls is a program running on a PC that is capable of filtering incoming, outgoing, and forwarded network packets. A packet filtering firewall filters incoming and outgoing network packets based on the packet header information. Good examples are The Oracle Linux kernel that uses the Netfilter feature to provide packet filtering functionality for IPv4 and IPv6 packets respectively.

A packet filter looks at packets coming by and allows them through or not based on the content of fields in the packet headers. On the other hand, a proxy filter is a machine that serves as a middleman between a client and a server. When a user accesses a server through a proxy, the server believes it is completing the requests of the proxy, not the actual user, so it shields the client from identification.

The Linux kernel embeds the netfilter firewall. It can be controlled from user space with the iptables and ip6tables commands. The difference between these two commands is that the former acts on the IPv4 network, whereas the latter acts on IPv6. Since both network protocol stacks will probably be around for many years, both tools will need to be used in parallel.