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**CA BootCamp Assignment Day -1**

**Question-1 What is Cache Memory?**

**Answer: Cache memory is called as cache store. It is the fastest memory which has faster access time where data is temporarily stored for faster access. Cache memory is used to reduce the average time to access data from the Main memory. The cache is a smaller and faster memory which stores copies of the data from frequently used main memory locations.**

**Question-2 What is Disk Management?**

**Answer: Management of all the disk drives present or installed in a computer is done by Disk Management. It is a utility which is an extension of Microsoft management console in Windows used to format, create, delete partitions etc.**

**Question-3 Cache vs RAM?**

**Answer: In Memory Hierarchy of a computer Cache and RAM memory are two important members.**

**The primary memory of a computer is RAM Random Access Memory, whereas Cache memory is the faster and smaller memory and frequently used memory.**

**Question-4 HDD vs SSD?**

**Answer:**

**HDD                                                                               SDD**

**Less Expensive Mature technology and massive               Higher performance for faster read/write**

**Installed user base                                                               operations and fast load times**

**Mechanical components take longer to read-write             May not be as durable/reliable as HDDs**

**than SSDs                                                                          Not good for long-term archival data**

**HDD stands for Hard disk drive. HDD has a storage which is made with mechanical parts and Magnetic tape.**

**SSD stands for Solid state Drive. SSD is actually a flash storage. This is smaller, when compared to HDD and does not have any moving parts.**

**SSDs are light, fast, use less energy whereas HDDs are cheap and have more storage space.**

**Implementation of all different types of commands on their respective OS.**

**Question-5 TASK 1: Typical command line operation on File like Create, Copy, Delete, Move, Rename, etc.**

**Answer:**

**cd – change directory command is used to change the current working directory in             Linux**

**cd /home/files (You can also navigate to a directory by using its absolute path)**

**ls - command is used to list information about files and directories within a directory.**

**ls – l (The default output of the ls command shows only the names of the files and directories. Use the -l to print files in a long listing format)**

**ls -a (To display all files including the hidden files, use the -a option)**

**touch – (To create a file, specify the file name as an argument)**

**mkdir - To create a directory, pass the name of the directory as the argument to the command**

**rm – Removing files and directories.**

**cp – Copying files and directories.**

**mv – moving and renaming files and directories**

**apt - Before installing a new package first, you need to update the APT package**

**Question-6 TASK 2: File Permission commands - rwx (Work on all 400,600,777 etc)**

**Answer:**

**chmod – changing Permissions**

**r(read) = 4**

**w(Write) = 2**

**x(execute) = 1**

**no permissions = 0**

**chmod 000 – no permissions (read, write execute)**

**chmod 777 – All permissions (read, write execute)**

**chmod 600 – owner can read and write**

**chmod 700 – owner can read, write and execute**

**chmod 666 – all can read and write**

**Question-7 TASK 3: Work with a command-line editor (Vi and Nano).**

**Answer:**

**Nano - text editor is pre-installed on macOS and most Linux distros. To check if it is installed on your system type**

**Install - sudo apt install nano/ sudo yum install nano**

**open file - nano filename**

**Save and Exit - ctrl+o and ctrl+x**

**Vi**

**You may use vi to open an already existing file by typing vi filename**

**You may create a new file by typing vi newname**

**To open a new file called "testvi," enter vi testvi**

**ENTERING TEXT**

**i        insert text left of cursor**

**a        append text right of cursor**

**MOVING THE CURSOR**

**h        left one space**

**j        down one line**

**k        up one line**

**l        right one space**

**BASIC EDITING**

**x     delete character**

**nx    delete n characters**

**X     delete character before cursor**

**dw    delete word**

**ndw   delete n words**

**dd    delete line**

**ndd   delete n lines**

**D     delete characters from cursor to end of line**

**r     replace character under cursor**

**cw    replace a word**

**ncw   replace n words**

**C     change text from cursor to end of line**

**o     insert blank line below cursor**

**(ready for insertion)**

**O     insert blank line above cursor**

**(ready for insertion)**

**J     join succeeding line to current cursor line**

**nJ    join n succeeding lines to current cursor line**

**u     undo last change**

**U     restore current line**

**MOVING AROUND IN A FILE**

**w        forward word by word**

**b        backward word by word**

**$        to end of line**

**0 (zero) to beginning of line**

**H        to top line of screen**

**M        to middle line of screen**

**L        to last line of screen**

**G        to last line of file**

**1G       to first line of file**

**<Control>f   scroll forward one screen**

**<Control>b   scroll backward one screen**

**<Control>d   scroll down one-half screen**

**<Control>u   scroll up one-half screen**

**n        repeat last search in same direction**

**N        repeat last search in opposite direction**

**CLOSING AND SAVING A FILE**

**ZZ        save file and then quit**

**:w        save file**

**:q!        discard changes and quit file**

**Question-8 TASK 4: Environment Variables**

**Answer:**

**export command is used to set Environment variables.**

**printenv or env command without any arguments it will show a list of all environment variables.**