***Redhat Linux Server Assignment***

***Module 15 Linux server - Understand and use essential tools***

* ***Assignment Level Basic***

1. ***Full form of bash.***

***Ans.*** *Bourne Again Shell*

1. ***What is a bash shell?***

***Ans.*** *Bash is a command line interpreter that typically runs in a text window where the user can interpret commands to carry out various actions.*

1. ***What is the meaning of $ in terminal?***

***Ans.*** *In terminal “$” symbol means a local user.*

1. ***What is the meaning of # in terminal?***

***Ans.*** *In terminal “#” symbol means a super user*

1. ***How many virtual consoles are available in Linux 7.0?***

***Ans.*** *4 virtual consoles are available in Linux 7.0.*

1. ***What is the file system hierarchy in Linux?***

***Ans.*** All files on a Linux system are stored on file systems which are organized into a single inverted tree of directories, known as a file system hierarchy. This tree is inverted because the root of the tree is said to be at the top of the hierarchy, and the branches of directories and subdirectories stretch below the root.

1. ***What is “/ “in Linux?***

***Ans.*** *In Linux “/” is the root directory.*

1. ***What is the purpose of “/etc “?***

***Ans.*** The /etc directory contains system configuration information. Several files and subdirectories have been added, removed, or changed.

1. ***What is the purpose of “/home “?***

***Ans.*** The Linux home directory is a directory for a particular user of the system and consists of individual files. It is also referred to as the login directory.

1. ***What is the Purpose of “/boot “?***

***Ans.*** /boot or 'Boot' folder contains the Linux boot configuration files. This is one of the MOST important folders.

1. ***What is the use of man command?***

***Ans.*** man command in Linux is used to display the user manual of any command that we can run on the terminal. It provides a detailed view of the command which includes NAME, SYNOPSIS, DESCRIPTION, OPTIONS, EXIT STATUS, RETURN VALUES, ERRORS, FILES, VERSIONS, EXAMPLES, AUTHORS and SEE ALSO.

1. ***What is the use of passwd command?***

***Ans.*** The passwd command changes passwords for user accounts. A normal user may only change the password for their own account, while the superuser may change the password for any account.

1. ***want to search specific string in man, what should I do?***

***Ans.*** The three tricks to remember to search once you're within a man page are: / search string – find matches to “search string” in current man page” n – go to next match. shift + n – go to prior match.

1. ***How to exit from man?***

***Ans.*** Just press “q” key or press ctrl + Z to quit out of a man page.

1. ***What is the use of “ pinfo “command?***

***Ans.*** It invokes the man part of program. You can also call the man function of pinfo in another way. When pinfo is called with an argv[0] (the program file name), which contains the word 'man' in its name, the man functions are enabled automatically.

1. ***What is the use of “sosreport “command?***

***Ans.*** he sosreport command collects information about a system such as hardware configuration, software configuration, and operational state.

1. ***By default, location to store “ sosreprt “is….***

***Ans.*** the sosreport(1) tool places its output into the /tmp directory.

1. ***What is the use of “>file “command?***

***Ans.*** redirect stdout to overwrite a file

1. ***What is the use of “>>file “command?***

***Ans.*** redirect stdout to append to a file

1. ***What is the use of “2>file “command?***

***Ans.*** redirect stderr to overwrite a file

1. ***What is the use of “2>>file “command?***

***Ans.*** redirect stderr to overwrite a file

1. ***What is the use of “whereis “command?***

***Ans.*** The whereis command locates the source, binary, and manuals sections for specified files.

1. ***What is the use of “echo “command?***

***Ans.*** The Echo is a Unix/Linux command tool used for displaying lines of text or string which are passed as arguments on the command line. This is one of the basic commands in Linux and most used in shell scripts.

1. ***What is the use of “tty “command?***

***Ans.*** The tty command writes the name of your terminal to standard output.

1. ***What is the use of “| “and “tee “command in terminal?***

***Ans.*** A pipeline is a sequence of one or more commands separated by |, the pipe character. A pipe connects the standard output of the first command to the standard input of the next command

The tee command, used with a pipe, reads standard input, then writes the output of a program to standard output and simultaneously copies it into the specified file or files. Use the tee command to view your output immediately and at the same time, store it for future use.

1. ***What is the use of “vim “?***

***Ans.*** Vim is a text editor that is upwards compatible to Vi. It can be used to edit all kinds of plain text. It is especially useful for editing programs.

1. ***Give a list of “vim modes “***

***Ans.*** vim has two "modes": COMMAND mode and INSERT mode. In COMMAND mode, you execute commands (like undo, redo, find and replace, quit, etc.). In INSERT mode, you type text. There is a third mode, VISUAL mode, that is used to highlight and edit text in bulk.

1. ***What is “gedit “?***

***Ans.*** Gedit is a text editor designed for the GNOME desktop environment.

1. ***What is “tar “?***

***Ans.*** *The GNU tar (short for Tape Archiver) command is the most widely used archiving utility in Linux systems. Available directly in the terminal, the tar command helps create, extract, and list archive contents.*

1. ***want to get backup of /etc directory, how do i wright down the command?***

***Ans.***

1. ***From which command, I extract .tar file?***

***Ans.*** To extract a tar.gz file, use the tar -xf command followed by the archive name.

1. ***want to see the content of .tar file, without extracting this, which command will help me***

***Ans.*** With the tar command, you can use -t to view the contents of tar. gz files with the list of details. The -t switch is used to list the contents of the tar. gz file without extracting it.

1. ***want to copy “file1 “on remote desktop computer, which command will help?***

***Ans.*** *“Cp” command will help to copy “file1” on remote desktop computer.*

1. ***Which command is used for remote synchronize?***

***Ans.***

1. ***What is ACL***

***Ans.***

1. ***Which command is used to view the ACL?***

***Ans.***

1. ***Ext3 and exe4 both file systems are supported the ACL, is true or false?***

***Ans.***

1. ***Which command is used to modify ACL***

***Ans.***

1. ***What is the use of “grep” command?***

***Ans.*** The grep command can search for a string in groups of files. When it finds a pattern that matches in more than one file, it prints the name of the file, followed by a colon, then the line matching the pattern.

1. ***What happened if i use < grep -i -v ‘cat’ > command?***

***Ans.*** *It will find a specific word in any file witch we want to find.*

* ***Assignment Level Intermediate***

1. ***What happed if I press “ctrl + alt + f1”***

***Ans.*** You can now press Ctrl + Alt + F1 instead of returning to the first virtual terminal, which in turn will get you to the desktop session you were running. Furthermore, you won't actually need to press Ctrl this time around either. You can directly press Alt + F1 to come back to the desktop.

1. ***What happens if I press “ctrl + alt + f2”?***

***Ans.*** Most users only ever see the first console. If you are running a graphical desktop, it will be on the first virtual console. If you hit CTRL-ALT-F2, you'll get a text-based login prompt. You could log in there, and start another, different graphical desktop.

1. ***What happens if I press “ctrl+alt+f3”?***

***Ans.*** In some variants of Linux, pressing Ctrl + Alt + F3 switches to the fourth/third open console window (virtual terminal).

1. ***Short cut key to finish session in terminal***

***Ans.*** Ctrl+D. This shortcut will effectively log you out of any terminal and close it.

1. ***What is gnome in Linux 7.0?***

***Ans.*** *Gnome,*originally an acronym for GNU Network Object Model Environment, is a free and open-source desktop environment for Linux and other Unix-like operating systems.

1. ***How many workspaces are available in Linux 7.0?***

***Ans.***

1. ***What is the purpose of “/dev”?***

***Ans.*** /dev is the location of special or device files. It is a very interesting directory that highlights one important aspect of the Linux filesystem - everything is a file or a directory.

1. ***What is the absolute path?***

***Ans.*** An absolute path is defined as specifying the location of a file or directory from the root directory (/). In other words, we can say absolute path is a complete path from start of actual filesystem from / directory.

1. ***What are relative paths?***

***Ans.*** Relative path is defined as path related to the present working directory(pwd). Suppose I am located in /var/log and I want to change directory to /var/log/kernel. I can use the relative path concept to change directory to kernel. changing directory to /var/log/kernel by using relative path concept. pwd/var/logcd kernel.

1. ***What is the difference between “ls -l” and “ls -la” command?***

***Ans.*** Both are not the same. In the first case (ls -l) hidden files/folders will not be listed while in the second case (ls -la) hidden files/folders will be shown.

1. ***What is the use of “pwd” command?***

***Ans.*** The pwd command writes to standard output the full path name of your current directory (from the root directory). All directories are separated by a / (slash). The root directory is represented by the first /, and the last directory named is your current directory.

1. ***What is the use of man command?***

***Ans.*** man command in Linux is used to display the user manual of any command that we can run on the terminal. It provides a detailed view of the command which includes NAME, SYNOPSIS, DESCRIPTION, OPTIONS, EXIT STATUS, RETURN VALUES, ERRORS, FILES, VERSIONS, EXAMPLES, AUTHORS and SEE ALSO.

1. ***What is the use of passwd command?***

***Ans.*** The passwd command changes passwords for user accounts. A normal user may only change the password for their own account, while the superuser may change the password for any account

1. ***I want to search specific string in man, what should I do?***

***Ans.*** To search a specific man page section, use the -s option with the man command and the -k or -K option. Note - Keywords are contained within double quotation marks.

1. ***How to exit from man?***

***Ans.*** Just press “q” key or press ctrl + Z to quit out of a man page.

1. ***What is the use of “ pinfo “command?***

***Ans.*** It invokes the man part of program. You can also call the man function of pinfo in another way. When pinfo is called with an argv[0] (the program file name), which contains the word 'man' in its name, the man functions are enabled automatically.

1. ***What is the use of “sosreport “command?***

**Ans.** *The sosreport command is a tool that collects configuration and diagnostic information from a Red Hat Enterprise Linux system. To run sosreport the sos package must be installed. The package is part of the default group and will be installed automatically on most systems.*

1. ***By default, location to store “ sosreprt “is….***

***Ans.*** the sosreport(1) tool places its output into the /tmp directory.

* ***Assignment Level Advance***

1. ***How do we switch workspace?***

***Ans.*** There are two ways to cycle between workspaces. First displays the workspace switcher by pressing the Super key and then left-clicking the relevant preview screen. The second is pressing either of the following keyboard shortcuts: Ctrl+Alt+Up/Down

1. ***use of "passwd" is...***

***Ans.*** The passwd command changes passwords for user accounts. A normal user may only change the password for their own account, while the superuser may change the password for any account.

1. ***use of "head" and "tail" command is....***

***Ans.*** As their names imply, the head command will output the first part of the file, while the tail command will print the last part of the file. Both commands write the result to standard output. In later sections, we'll take a closer look at each command and learn how to use them through examples.

1. ***use of history command is....***

***Ans.*** The history command in Linux is a built-in shell tool that displays a list of commands used in the terminal session. history allows users to reuse any listed command without retyping it.

1. ***which command is used to add new user***

***Ans.*** The useradd command creates a new user account.

1. ***Meaning of “tail -n 20” command is...***

***Ans.*** tail -n 20 notes. To display the notes, file a page at a time

1. ***What is difference between “cd” and “cd .. ” command?***

***Ans.*** cd command will take you back to your home directory directly, it doesn't matter wherever you are. cd .. will take you back just one step back, i.e., to parent directory of current directory.

1. ***Explain the command “cp file1 file2”***

***Ans.*** “cp” command is used to copy files and directories. It requires at least two arguments. To copy file file1 to a new file file2, issue “cp file1 file2” command. file2 will have the same contents as file1, but it will have new date stamp.

1. ***What the use of below command rm***

***Ans.*** Use the rm command to remove files you no longer need. The rm command removes the entries for a specified file, group of files, or certain select files from a list within a directory. User confirmation, read permission, and write permission are not required before a file is removed when you use the rm command.

1. ***rm -r mv mkdir***

Ans.

1. ***Explain the command “ mkdir -p “***

***Ans.*** With the help of mkdir -p command you can create sub-directories of a directory. It will create parent directory first, if it doesn't exist. But if it already exists, then it will not print an error message and will move further to create sub-directories.

1. ***What would happen if I used this command “ls ab\* “?***

***Ans.***

***Task: 1***

1. ***Use Ctrl+Alt+f1 to Ctrl+Alt+f6***

***Ans.*** *Done in lab.*

1. ***Change the password for student user from “student” to 55TurnK3y***

***Ans.*** *Done in lab.*

1. ***Check only time in terminal***

***Ans.*** *Done in lab.*

1. ***Check only date in terminal***

***Ans.*** *Done in lab.*

1. ***Check last three line of “passwd” file***

***Ans.*** *Done in lab.*

1. ***Check word count, line count, character count in “passwd” file***

***Ans.***

1. ***Check hidden files in “/” directory***

***Ans.*** *Done in lab.*

1. ***Use “history “commands***

***Ans.*** *Done in lab.*

1. ***Use <! command > and <! number > from history***

***Ans.***

***Task: 2***

1. ***Your present working directory is “/home/student/Desktop “and with the help of relative path create “boss” directory in “/tmp/hello/dir1 “***

***Ans. Done*** *in lab.*

1. ***Find your present working directory***

***Ans.*** *Done in lab.*

1. ***Create three directories [dir1, dir2. Dir3]***

***Ans.*** *Done in lab.*

1. ***Remove these three directories [dir1, dir2, dir3]***

***Ans.*** *Done in lab.*

1. ***Create blank file in terminal***

***Ans.*** *Done in lab.*

1. ***Use “cp” command***

***Ans.*** *Done in lab.*

1. ***Use “mv” command***

***Ans.*** *Done in lab.*

1. ***Use “rm” command***

***Ans.*** *Done in lab.*

1. ***Use “rm –r” command***

***Ans.*** *Done in lab.*

***Task: 3***

1. ***View the “gedit” man page***

***Ans.*** *Done in lab.*

1. ***Use “pinfo” command***

***Ans.*** *Done in lab.*

1. ***Reading documentation in /usr/share/doc***

***Ans.*** *Done in lab.*

1. ***Access customer portal using https://access.redhat.com/help***

***Ans.*** *Done in lab.*

1. ***Create “sosreport”***

***Ans.*** *Done in lab.*

***Task: 4***

1. ***Redirect the output of “date” command to “/tmp/SavEd-timestamp***

***Ans.*** *Done in lab.*

1. ***Delete Saved-timestamp file.***

***Ans.*** *Done in lab.*

1. ***Send command output to file, and errors to different file.***

***Ans.*** *Done in lab.*

1. ***Send output and errors to the same new, empty file***

***Ans.*** *Done in lab.*

1. ***Run command, save output in a file, discard error messages.***

***Ans.*** *Done in lab.*

1. ***Open and learn “ vimtutor “***

***Ans.*** *Done in lab.*

1. ***Edit any file with “gedit “***

***Ans.*** *Done in lab.*

1. ***Redirect a long listing of all content in student’s home directory, including hidden directories and files, into a file named “***

***Ans.*** *Done in lab.*

1. ***editing\_final\_lab.txt “***

***Ans.*** *Done in lab.*

1. ***Remove the time column, but leave the month and day on all line (block selection visual mode)***

***Ans.*** *Done in lab.*

***Task: 5***

1. ***Get backup of /etc***

***Ans.***

1. ***Create new directory “Folder”***

***Ans.*** *Done in lab.*

1. ***Extract this new backup in Folder directory***

***Ans.*** *Done in lab.*

1. ***Check the content of this new backup without extracting***

***Ans.***

1. ***Compress /etc.***

***Ans.*** *Done in lab.*

1. ***Check the size after compression***

***Ans.*** *Done in lab.*

1. ***Graphically manage extract and compression***

***Ans.*** *Done in lab.*

1. ***Create a new file with vim. name “f1”***

***Ans.*** *Done in lab.*

1. ***Copy this “f1” on remote desktop's “/” directory***

***Ans.*** *Done in lab.*

1. ***Create new file name 123 on “/” directory of desktop machine***

***Ans.*** *Done in lab.*

1. ***Start server machine***

***Ans.*** *Done in lab.*

1. ***Copy above /123 file on current system location***

***Ans.*** *Done in lab.*

1. ***Use sftp command***

***Ans.*** *Done in lab.*

***Task: 6***

1. ***Assign Read, write, executable permission on directory “dir1” for user “u1”***

***Ans.*** *Done in lab.*

1. ***Add user “u3” in group “red”***

***Ans.*** *Done in lab.*

1. ***Assign Read, write, executable permission on directory “dir1” for group “red”***

***Ans.*** *Done in lab.*

1. ***Create a new directory name “dir2”***

***Ans.*** *Done in lab.*

1. ***Copy the permission of “dir1” to the new directory “dir2”***

***Ans.*** *Done in lab.*

1. ***Remove only user’s ACL on “dir”1***

***Ans.***

1. ***Remove all ACL on “dir2”***

***Ans.***

***Task: 7***

1. ***Create any file with the help of VIM***

***Ans.*** *Done in lab.*

1. ***Replacing text in VIM***

***Ans.*** *Done in lab.*

1. ***Copy and paste any contents in VIM***

***Ans.*** *Done in lab.*

1. ***Search any content in VIM***

***Ans.*** *Done in lab.*