# UNIX PREPS

Reading "[Linux Administration with sed and awk](https://app.pluralsight.com/library/courses/linux-administration-sed-awk/table-of-contents)" tutorial on www.pluralsight.com

1. declare -f | grep '^[a-z\_]'

check output of above command.

2. Check version of grep you are running

grep --version

3. List block devices command

lsblk

4. Check version of sed command

sed --version

-n option of sed command

-n means - supress automatic printing of pattern space

High level difference between sed and awk

1. sed procedure corresponds closely to, how you would apply editing manually, while awk offers a more computational model of file processing.

Q - What is "ed" in unix ?

Ans - "ed" is original unix line editor. if we understand ed then probably we will understand better line editing done by "sed" and "awk".

Q - How to know version of awk command ?

Ans - awk -W version

very simple awk command which will print content of a file

awk '{print}' <absolute path of filename>

one more interesting enhancement to the above command,

awk 'BEGIN {print "reading file"} {print} END {print "End of processing, no of rows processed " : NR}' <absolute path of filename>

Note that BEGIN and END block will only be printed once, while the middle statement is the main loop. NR is the awk variable which can be used in awk script. For example NR means, "No of records" processed by the awk script.

Important thing to note that "awk" is a programming language in itself.

Shell programming imp points to note :-

Q. How will you do numeric comparison in the shell script or say will do numerical comparisons in the shell script ?

Ans - Syntax of numerical comparison is,

arg1 op arg2

Below are different possible values of op,

-eq, -ne,-lt,-le,-gt,-ge

Q. What is command substitution in unix shell script ?

Ans - Please note below syntax of command substitution ,

NO1=$(ls ${DIR1} | wc -l) - This is example of command substitution

OR

NO1=`ls ${DIR1} | wc -l` - This is an old syntax which also can be used to execute some command and then hold its output into some varaiable.

Typically you execute a command and assign its value to the some variable in the unix shell script to be used later in the programme.

Stuff from the unix shell script course on udemy.com

1. type command - This command gives information about command type.

Below is command to set password for a user, when we don't want to take input from keyboard. This situation occurs when you are setting password of user programmatically. Below is the example of command -

echo ${PASSWORD} | passwd --stdin {USER\_NAME}

Command to expire user's password - passwd -e ${USERNAME}

Q - What is basename command ?

Ans - basename - strips directory and suffix from absolute path names. example is below. Let say we execute below command,

basename /root/scripts/29082019/sc2.sh

Then output of the above command is "sc2.sh". so notice that basename returns just the filename without the directory portion which is present in the absolute path of the shell script. Counter part of basename command is dirname which returns directory part from the absolute path of the filename. One important thing to note is that these 2 commands "basename" and "dirname" do not check that this particular file or directory actually exists.