**Metacharacters** have a special meaning in UNIX. For example, \* and ? are metacharacters. We use \* to match 0 or more characters, a question mark (?) matches with a single character.

**ls variations:**

* **ls –a (**List Hidden files**)**
* **ls dirname (**List files in Directory**)**

**cat varitions:**

* **cat –b filename (**Display line number with file content**)**
* **wc :** word count in file (Syntax : wc filename)
* **chown −** The chown command stands for "change owner" and is used to change the owner of a file.
* Syntax: chown ownername filename
* **chgrp −** The chgrp command stands for "change group" and is used to change the group of a file.
* PS1 and PS2 are used to create customized prompts

In built variables:

* HOME
* PATH
* PWD
* RANDOM
* UID
* IFS

**Common commands used with If to check file conditions**

-d FILE

FILE exists and is a directory

-e FILE

FILE exists

-f FILE

FILE exists and is a regular file

-h FILE

FILE exists and is a symbolic link (same as -L)

-r FILE

FILE exists and is readable

-s FILE

FILE exists and has a size greater than zero

-w FILE

FILE exists and is writable

-x FILE

FILE exists and is executable

-z STRING

the length of STRING is zero

**GREP command frequent usage**: (**Syntax**: grep pattern filename)

1. Search for the given string in a single file

**Syntax**: grep "literal\_string" filename

1. Checking for the given string in multiple files.

**Syntax**: grep "string" FILE\_PATTERN

1. Case insensitive search

**Syntax**: grep -i "string" FILE

1. Match regular expression in files

**Syntax**: grep "REGEX" filename

1. Checking for full words, not for sub-strings using grep –w

**Syntax**: grep -iw "is" demo\_file

1. 1 Display N lines after match

-A is the option which prints the specified N lines after the match as shown below.

**Syntax**:grep -A <N> "string" FILENAME

1. Searching in all files recursively using grep –r

**Syntax**: grep -r "ramesh" \*

1. Invert match using grep –v
2. display the lines which does not matches all the given pattern.

grep -v -e "pattern" -e "pattern"

1. Counting the number of matches using grep –c

grep -c "pattern" filename

1. Display only the file names which matches the given pattern using grep –l

grep -l this demo\_\*

1. Show line number while displaying the output using grep –n

grep -n "go" demo\_text

1. Show the position of match in the line

grep -o -b "pattern" file

**SED;**

Stream Editor is useful for text processing.SED can be used to substitute text

SED is line oriented means if it finds the matching string once in a line it will go to next line instead searching for other occurrence.

**\_,: or | can ber used as delimeter**

sed 's\_/usr/local/bin\_/common/bin\_' <old >new

SED metacharacter **“&**”represents the pattern matched

**Cat**: Concat 2 files.

**Head / Tail:** Print end lines of file

-n: prints last n lines

**Syntax:** Head/Tail –n 100 <filename>

-f: Keep open file stream live.

**Syntax:** Tail –f <filename>

-s: we can control refresh time for file stream

**Syntax:** Tail –f –s <filename>

-c: last certain bytes of data

**Syntax:** Tail –f –c <filename>

**Head and Tail:**