**$ Characters**

$# the number of arguments

$\* all arguments to the shell

$@ similar to $\* except when quoted with "

$- options supplied to the shell

$? value returned by the last command executed

$$ the process-id of the shell

$! the process-id of the last command started with &

$HOME the user's home directory; default argument to cd

$IFS the list of characters which separate commands in arguments

$MAIL file which, when changed, triggers ``you have mail'' message

$PATH list of directories to search for commands (: separated)

$PS1 primary shell prompt, default $

$PS2 secondary shell prompt (continued commands), default >

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>> $? --> this indicates the exit status of the previous command.

>> Redirecting to "/dev/null" is a way to stopping the program from printing the output to screen.

>> !! --> On the command line, !! would be expanded to the last command executed. Bash will print the line for you:

>> input can be taken by keyboard(default), from another file (using <), or from the o/p of anohter program (using |)

>> output will be sent to screen (default) and it can be sent to a file (using >) or to a program (using |)

>> Each program produce both o/p and standard error.

>> ">" is used for the redirect to a file. "|" is used to redirect to a program.

>> ">>" is used for redirection + appending.

>> "<" standard input can be read from a file

>> "|" standard output can be piped to another program

>> "1>" can be used to redirect the Standard Output.

>> "2>" -> "Standard Error" is separate from "Standard output" 2> can be used to redirect the Standard Error to another file.

>> "&1" --> standard output and standard error can be routed to same file like the example below.

find . -name vivek.txt > results.log 2>&1 --> standard o/p to the results.log and stderr to the stdout, in this case to the same file results.log

>>Note that it is never possible to give a file a name that includes the / character

>> Anyform of o/p either standard o/p or standard error can be redirected to /dev/null, if it is not wanted at all.