**Special Characters**

Comment

**#** Lines beginning with a # (with the exception of #!) are comments and will *not* be executed & extra #! Act as a comment.

Command separator **;**

Terminator in **Case** option **;;**

Curent directory **.**

Parent directory **..**

Double Quotes

**“$HOME“** Prevent all **special** character displays ==> /usr/home

Single quotes

**‘$HOME’**: skips special chara display ==> $HOME

Coma Operator **,**

comma links together a series of arithmetic operations

**Lower case conversion** **, ,,**

var=”SPORTZ”

echo ${var,} >>> first car lowercase >>> sPORTZ

echo ${var,,} >>> All lower case >>> sportz

Upper Case operation ^ ^^

Var=”sportz”

echo ${var^} >>> first car lowercase >>> Sportz

echo ${var^^} >>> All lower case >>> SPORTZ

Colon **:**

do nothing operation act as place holder

The "**:**" command is itself a Bash builtin, and

its exit status is true (0).

Redirection > **>> &>** redirects both stout and sterr

Input Redirection << <<<

Force Redirection even clob is set **>|**

Backslash \ escapes the character

Reverse **!**

**Pipe |**

Test operator **?**

Dollar **$**

**Represents command substitution $(command)**

**Expand and evaluate integer expression between (( ))**

Represents Varaible/Parameter substitution **${variable name}**

In a regular expression, a "$" addresses the end of a line of text.

Positional parameter **$\*,$@**

Exit status  **$?**

Process ID variable **$$**

Command group ()

Block of codes {}

Test expression [ ] and [[ ]]

Array element [ ]

Run job in background &

AND logical operator &&

BODMUS

EOF (end-of-file). This also terminates input from stdin