Linux Shell Scripting Tutorial (LSST) v1.05r3

Chapter 2: Getting started with Shell Programming

Variables in Shell

To process our data/information, data must be kept in computers RAM memory. RAM memory is divided into small locations, and each location had unique number called memory location/address, which is used to hold our data. Programmer can give a unique name to this memory location/address called memory variable or variable (Its a named storage location that may take different values, but only one at a time).

In Linux (Shell), there are two types of variable:

(1) **System variables** - Created and maintained by Linux itself. This type of variable defined in CAPITAL LETTERS.

(2) **User defined variables (UDV)** - Created and maintained by user. This type of variable defined in lower letters.

You can see system variables by giving command like **$ set**, some of the important System variables are:

System Variable	Meaning
BASH=/bin/bash	Our shell name
BASH_VERSION=1.14.7(1)	Our shell version name
COLUMNS=80	No. of columns for our screen
HOME=/home/vivek	Our home directory
LINES=25	No. of columns for our screen
LOGNAME=students	students Our logging name
OSTYPE=Linux	Our Os type
PATH=/usr/bin:/sbin:/bin:/usr/sbin	Our path settings

PS1=[\u@\h \W]\$	Our prompt settings
PWD=/home/students/Common	Our current working directory
SHELL=/bin/bash	Our shell name
USERNAME=vivek	User name who is currently login to this PC

NOTE that Some of the above settings can be different in your PC/Linux environment. You can print any of the above variables contains as follows:

```
$ echo $USERNAME
$ echo $HOME
```

Exercise:

1) If you want to print your home directory location then you give command:

a)`$ echo $HOME`

OR

(b)`$ echo HOME`

Which of the above command is correct & why? Click here for answer.

Caution: Do not modify System variable this can some time create problems.

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