**Shell Scripting**

* Shell script consist of set of commands to perform a task.
* All the commands execute sequentially.
* Some tasks like file manipulation, program execution, user interaction, automation of task etc can be done.

**Different Types of Shells**

* **Bourne Shell (sh)**: Bourne Shell is the original Unix/ shell developed at AT&T by Stephen Bourne. It is also named as (sh) programming name. It used the symbol $.
* **Bourne Again Shell (bash)**: It is the free version of Bourne shell and comes with all UNIX/Linux systems as free with some additional features like command-line editing. Its program name is bash. It can read commands from a file called scripts.
* **Korn Shell (ksh)**: Korn shell is the Unix shell developed by David Korn of Bell labs. Is considered as the family member of Bourne shell as it uses the $ symbol of Bourne shell. It is also named as Ksh programmatically and most widely used shell. It is generally used to automate system administration tasks.
* **C shell (csh**): C shell is the UNIX shell created by Bill joy at California university as an alternative to Bourne shell – Unix original shell. C shell along with Bourne and Korn is there most popular and commonly used shells. csh is the program name for C shell. Mostly Network Admins use this shell.
* **TCsh Shell**: Tab C Shell(TCsh) is the family member of C shell with additional features like enhanced history substitution to reuse commands, spelling correction and word completion.

**Commands**

1. To Check the default shell in our System: **echo $0**
2. To Check the available Shells in our System: **cat /etc/shells**
3. To Check which Shell being used by the User: **echo $SHELL**
4. To Display value of a variable: **echo $VARIABLENAME**
5. To Display all environment variables: **env [e.g., PATH, USER, HOME, EDITOR, UID, TERM, SHELL]**
6. Set path at session level: **export PATH=$PATH:Required\_Path**

By this you should now able to execute the script anywhere on

your system **by just typing only its name**, without having to include the full path as you type it.

7. Set path Permanently:

* Go to home directory. Check it by typing command **pwd**

(e.g., /home/satya)

* Type command **ls –a** (There is a hidden file .bashrc)
* Then open command in nano editor by Typing **nano $.bashrc**
* Then Goto last line of the file and type your path and save it.

**export PATH=$PATH:Required\_Path**

8. To Run a Script File: **./script\_file\_Name.sh**

Before that we have to give permission to user to execute by

typing the command **chmod u+x** **script\_file\_Name.sh**

9. To Start a Script File at first line just type **#!/bin/bash**