

Learning Linux

You can use [online unix terminal for quick testing](#)

Make sure you understand following

- Linux
- Linux Kernel
- Shell
- Terminal
- Virtual machine
- Hypervisor

Understanding the Linux File System:

- What is a LVM
- What is a partition
- What is a mount point

Using Virtual Machine install following Linux OS

- Redhat/Centos/Fedora
- Ubuntu
- Bare Linux / Minimal Linux

Basics of Networking:

- What is Firewall
- What is IP Address, why do we need it
- What is a domain
- What is DNS and FQDN

Blogs to Follow:

- [Shell-Tips](#)
- [itsfoss](#)
- [Digital Ocean](#)
- [linux.com](#)
- [linuxjournal](#)
- [cyberciti](#)
- [techcrunch](#)

Advanced Tasks: If you have the zeal to learn and explore, try following

[Linux From Scratch](#)

[Beyond Linux From Scratch](#)

Tips and Advice:

- Make a habit of learning commands through man page, if not search google
 - Read blogs and Signup for newsletters
 - Complete the Linux Commands present in references and materials folder
 - Get good Hands on editors such as nano and vim
 - Reach Intermediate level in Shell Programming
 - Get Good Hands on experience with package managers yum and apt-get
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Reading Activity: Read the article and practice it simultaneously

- [What is Linux?](#)
- [Linux Kernel](#)
- [Linux OS overview](#)
- [What-does-tty-stand-for](#)
- [*What is a Shebang Line and what it does](#)
- [Linux Tutorial - I](#)
- [Linux Tutorial - II](#)
- [Linux Tutorial - III](#)
- [Linux Tutorial - IV](#)
- [Linux Cheat Sheet - I](#)
- [Linux Cheat Sheet - II](#)
- [Bash Scripting - I](#)
- [Bash Scripting -II](#)
- [Shell Script - III](#)
- [Advanced Bash Scripting Guide](#)
- [Cron](#)
- [Crontab](#)
- [how-do-i-add-jobs-to-cron-under-linux-or-unix](#)
- [What is SSH?](#)
- [Secure Shell Protocol](#)
- [understanding-the-ssh-encryption-and-connection-process](#)
- [iptables-essentials-common-firewall-rules-and-commands](#)
- <http://regexr.com/>
- [IP addressing and subnetting](#)
- [Understanding-tcp-ip-addressing-and-subnetting-basics](#)
- [What is a DNS ?](#)
- [What is a FQDN?](#)
- [Diff between DNS and FQDN](#)
- [Removing ctrl m characters](#)
- [Learn Vim while playing game](#)
- [Youtube Learning VIM in a week](#)
- [Youtube Mastering the VIM language](#)

- [CURL](#)
- [http scripting](#)
- [Shell script syntax checker](#)

*** More Tutorials and Topics will be added

Shell Programming Exercise:

- Write scripts where you pass arguments to the bash scripts
- Using sort, cut, uniq, sed, awk commands complete movie data questions
- Using loops while, for, until and if/else conditions:
- Write shell script for generating fibonacci sequence
- Write shell script for generating prime numbers in a range
- Write shell script for generating pascal triangle
- Write shell script for string palindrome
- Write shell script for finding armstrong numbers
- Find out a way where you can use substring like feature in bash scripting and use that.
- Example for this is print all the files with same extension O/P should look like
 1. .txt - one, two, three
 2. pdf - four, five, six
- Write a shell script where you read a certain set of commands from a file and execute them, using loops
- For the above script execute a script where you ignore the lines commented (or prefixed by #) and ignore Case sensitivity (use something that ignores the case of letters)
- Find a file which has unseen line feeds or space feeds or tab feeds hidden in a line or in a word. Write a script where you eliminate them and print the original string.
- Use Curl command to print some data as a rest api (For Ex: https://cloudera.github.io/cm_api/apidocs/v12/tutorial.html)
- Using bash script to run either a java program or a python programs.
- For the above job make sure second job waits until the first one completes

*** More Exercises will be added