a) To know about OS version and more.

```
ganesh@ansibleserver:~$ lsb_release -a …

No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 14.04.5 LTS
Release:        14.04
Codename:       trusty
```

b) To configure SSH permissions one can make changes to /etc/ssh/sshd_config,

1) Change `PermitRootLogin`
2) `PermitRootLogin yes …` You may also have to check value of `PasswordAuthentication.` If it is set to no then set to yes
3) `PasswordAuthentication yes`
4) Now restart SSH `service` using service or `systemctl` command.

- `$ service sshd restart`
- `$ systemctl restart sshd`

c) To install `ifconfig` command, we can install the `net-tools` package..

```
$ apt-get install -y net-tools
```

d) To install `traceroute` command on ubuntu install the utility package.,

```
$ apt-get install -y inetutils-traceroute
```

`$ chown jenkins:jenkins <folder/file-name>`

e) If we want to capture all command and output to a file as history, we can use **`script`** command as shown below.

`$ script output.txt` … this capture all subsequent commands and its output to 'output.txt file'

```
1) [aartgp1_gmail_com@git-trial ~]$ script output.txt
     Script started, file is output.txt

2) [aartgp1_gmail_com@git-trial ~]$ ls -la
   total 24
   drwxr-xr-x. 2 aartgp1_gmail_com 804625858 4096 Dec 25 05:17 .
   drwxr-xr-x. 3 root              root      4096 Dec 24 03:52 ..
   -rw-------.  1  aartgp1_gmail_com  804625858        8  Dec  24  03:58
   .bash_history
   -rw-r--r--.  1  aartgp1_gmail_com  804625858       18  Dec  24  03:52
   .bash_logout
   -rw-r--r--.  1  aartgp1_gmail_com  804625858     176  Dec  24  03:52
   .bash_profile
   -rw-r--r--. 1 aartgp1_gmail_com 804625858  124 Dec 24 03:52 .bashrc
   -rw-r--r--.  1  aartgp1_gmail_com  804625858        0  Dec  25  05:17
   output.txt
   [aartgp1_gmail_com@git-trial ~]$ mkdir newfolder
   [aartgp1_gmail_com@git-trial ~]$ cd newfolder/
```

```
[aartgp1_gmail_com@git-trial newfolder]$ exit
exit
Script done, file is output.txt
```

3) `cat output.txt`

```
Script started on Tue 25 Dec 2018 05:17:33 AM UTC
/usr/bin/id: cannot find name for group ID 804625858
[aartgp1 gmail com@git-trial ~]$ ls -la
total 24
drwxr-xr-x. 2 aartgp1_gmail_com 804625858 4096 Dec 25 05:17 .
drwxr-xr-x. 3 root              root      4096 Dec 24 03:52 ..
-rw-------.  1  aartgp1_gmail_com  804625858        8  Dec  24  03:58
.bash_history
-rw-r--r--.  1  aartgp1_gmail_com  804625858       18  Dec  24  03:52
.bash_logout
-rw-r--r--.  1  aartgp1_gmail_com  804625858     176  Dec  24  03:52
.bash_profile
-rw-r--r--. 1 aartgp1_gmail_com 804625858  124 Dec 24 03:52 .bashrc
-rw-r--r--.  1  aartgp1_gmail_com  804625858        0  Dec  25  05:17
output.txt
[aartgp1_gmail_com@git-trial ~]$ mkdir newfolder
[aartgp1_gmail_com@git-trial ~]$ cd newfolder/
[aartgp1_gmail_com@git-trial newfolder]$ exit
exit
```

4) `$ chmod 111 sample.file` … This will make the file executable for all

`$ chmod 222 sample.file` … This will make the writable for all

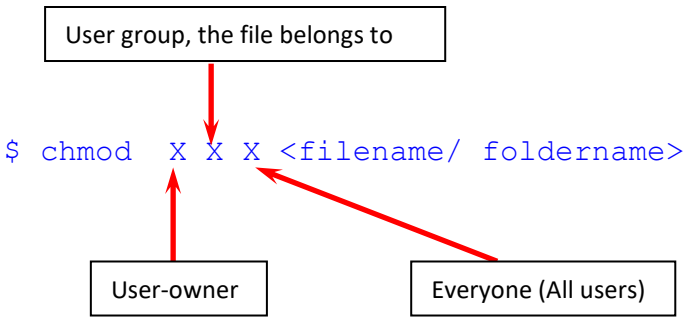
`$ chmod 333 sample.file` … This will make the file writable and executable for all

`$ chmod 444 sample.file` …. This will make the file read only for all

`$ chmod 555 sample.file` … This will make the file executable and Read only for all

`$ chmod 666 sample.file` … This will make the file read and writable for all, but not executable.

`$ chmod 777 sample.file` … this will make the file read, write and executable for all.



5) `$ chown user1 -Rf file / foldername` …. Changes user ownership of file to user1 .. in case of a folder `-R` changes recursively inside the folder as well.

6) `$ chgrp user1 –Rf file / foldername` … change group ownership of file to grp. –R to be used for recursive effect.

7) Installing applications using yum or apt repository package handler.

   In these Linux releases, the folder `/etc/yum.repos.d` or, `/etc/apt.repos.d` has `.repo` files with information about package repositories. In case if a package is not available on these repositories that are listed in the `.repo` files we can add entries into .repo files and download packages from the cloud / remote repositories.

   The entry in the `.repo` file looks like as shown below,

```
[epel-source]
name=Extra Packages for Enterprise Linux 7 - $basearch - Source
#baseurl=http://download.fedoraproject.org/pub/epel/7/SRPMS
metalink=https://mirrors.fedoraproject.org/metalink?repo=epel-source-
7&arch=$basearch
failovermethod=priority
enabled=0
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL-7
gpgcheck=1
```

```
$ yum install <package name>
$ yum remove <package name>
```

8) Command `rpm` ... stands for RedHat Package Manager

   `$ rpm –ql <repo name>` .. list repo list

   `$ rpm –iv <rpm file name with path>` > install certain package with verbose

Handy hostname command…

Some Basic Commands	
|	Pipe (redirect) output
sudo [command]	run < command> in superuser mode
nohup [command]	run < command> immune to hangup signal
man [command]	display help pages of <command>
[command] &	run < command> and send task to background
>> [fileA]	append to fileA, preserving existing contents
> [fileA]	output to fileA, overwriting contents
echo -n	display a line of text
xargs	build command line from previous output
1>2&	Redirect stdout to stderr
fg %N	go to task N
jobs	list task
ctrl-z	suspend current task

Network

netstat -r -v	print network information routing and connections
telnet	user interface to the telnet protocol
tcpdump	dump network traffic
ssh -i	openSSH client
ping -c	print routing packet trace to host network

file utilities

tr -d	translate or delete character
uniq -c -u	report or omit repeated lines
split -l	split file into pieces
wc -w	print newline, word, and byte counts for each file
head -n	output the first part of files
cut -s	remove section of a file

more, less	view file content, one page at a time
tail -f	output last part of the file