

25th june

A screenshot of a Google search results page for the query "openstack". The search bar at the top shows the query. Below the search bar, there are tabs for All, News, Images, Books, Videos, and More. The "All" tab is selected. The results section starts with a snippet from www.openstack.org about OpenStack software controlling pools of compute, storage, and networking resources. To the right of this snippet is a large image featuring the OpenStack logo and several screenshots of its interface. Below the snippet is a "People also ask" box containing four expandable questions: "What is OpenStack used for?", "Does AWS use OpenStack?", "Is OpenStack an operating system?", and "Is OpenStack a hypervisor?". At the bottom of the results page, there is a "Feedback" link.

OPENSTACK

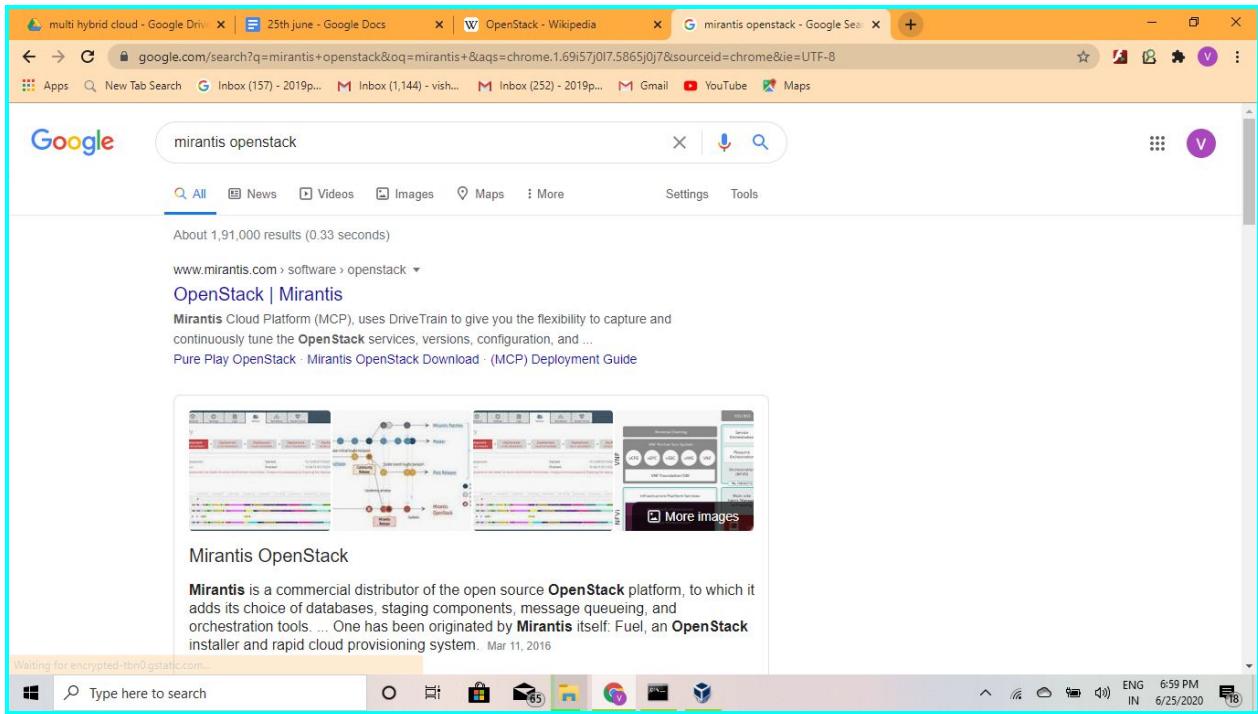
A screenshot of the OpenStack entry on Wikipedia. The page title is "OpenStack". The main content includes a "Release history" table. The table has three columns: "Release name", "Release date", and "Included Component code names". The rows list the following releases:

Release name	Release date	Included Component code names ^[51]
Austin	21 October 2010 ^{[52][53]}	Nova, Swift
Bexar	3 February 2011 ^[54]	Nova, Glance, Swift
Cactus	15 April 2011 ^[55]	Nova, Glance, Swift
Diablo	22 September 2011 ^[56]	Nova, Glance, Swift
Essex	5 April 2012 ^[57]	Nova, Glance, Swift, Horizon, Keystone
Folsom	27 September 2012 ^[58]	Nova, Glance, Swift, Horizon, Keystone, Quantum, Cinder
Grizzly	4 April 2013 ^[59]	Nova, Glance, Swift, Horizon, Keystone, Quantum, Cinder
Havana	17 October 2013 ^[60]	Nova, Glance, Swift, Horizon, Keystone, Neutron, Cinder, Heat, Ceilometer
Icehouse	17 April 2014 ^[61]	Nova, Glance, Swift, Horizon, Keystone, Neutron, Cinder, Heat, Ceilometer, Trove

ram-8gb

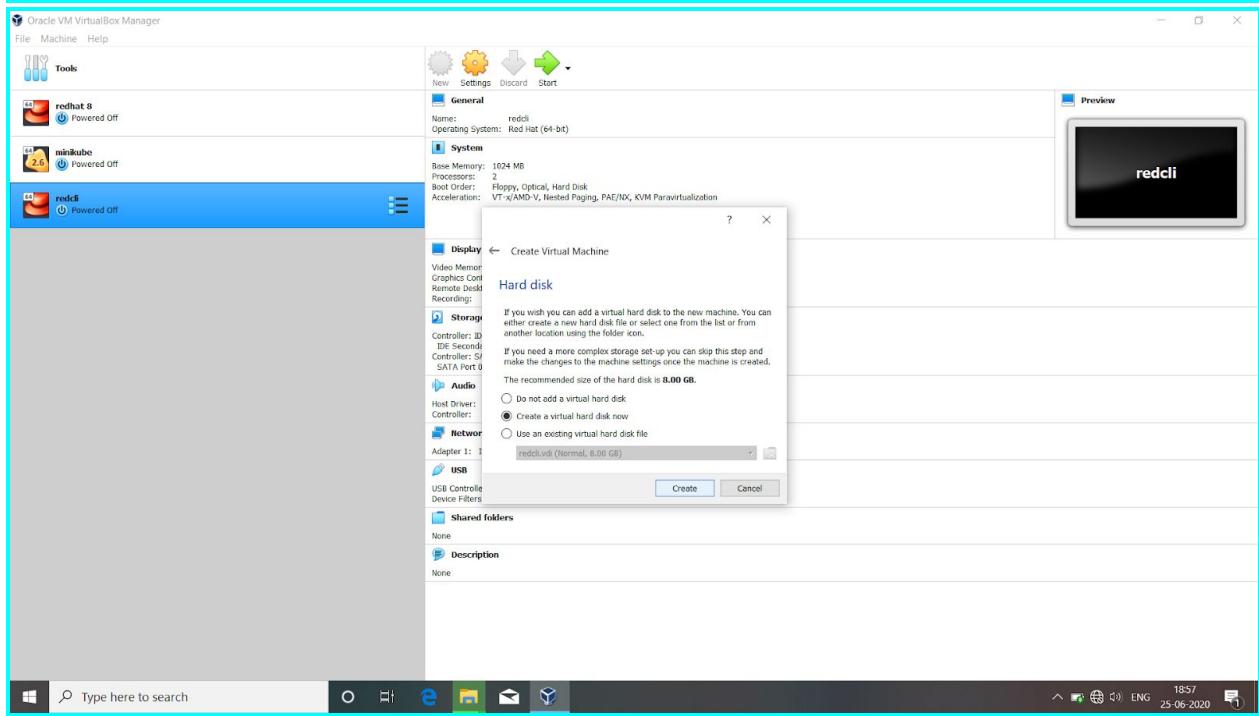
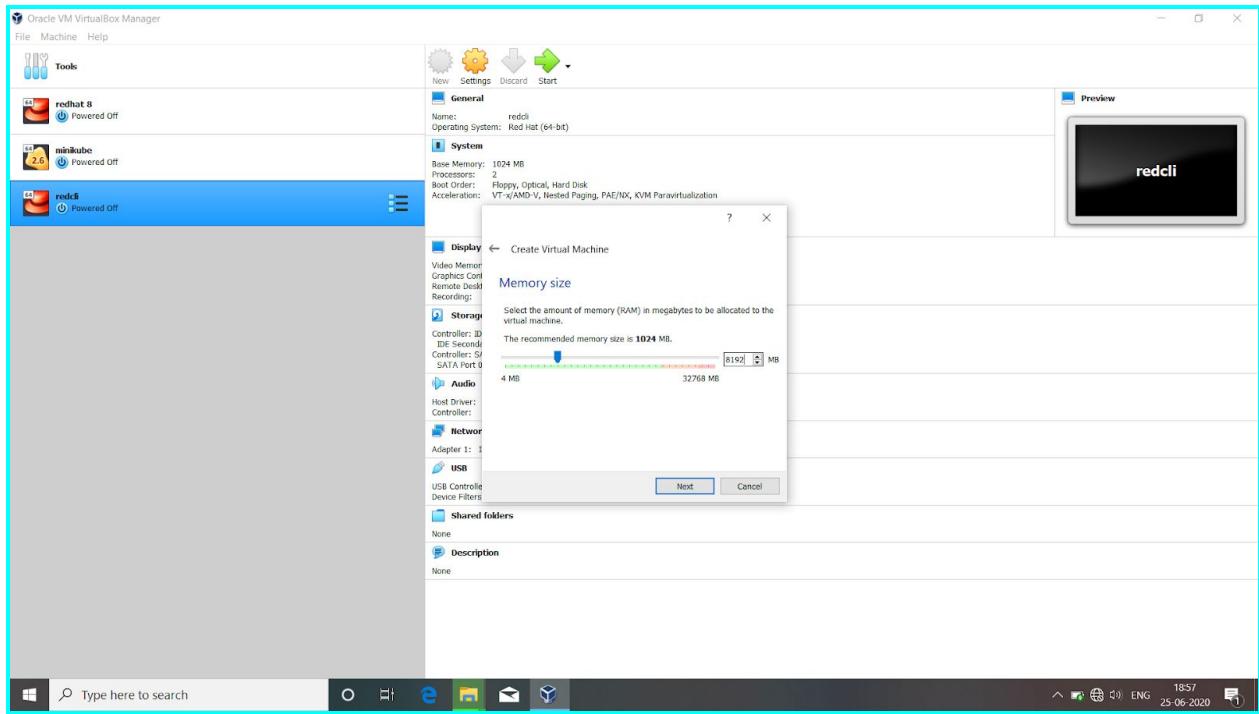
Hardisk-40-50gb

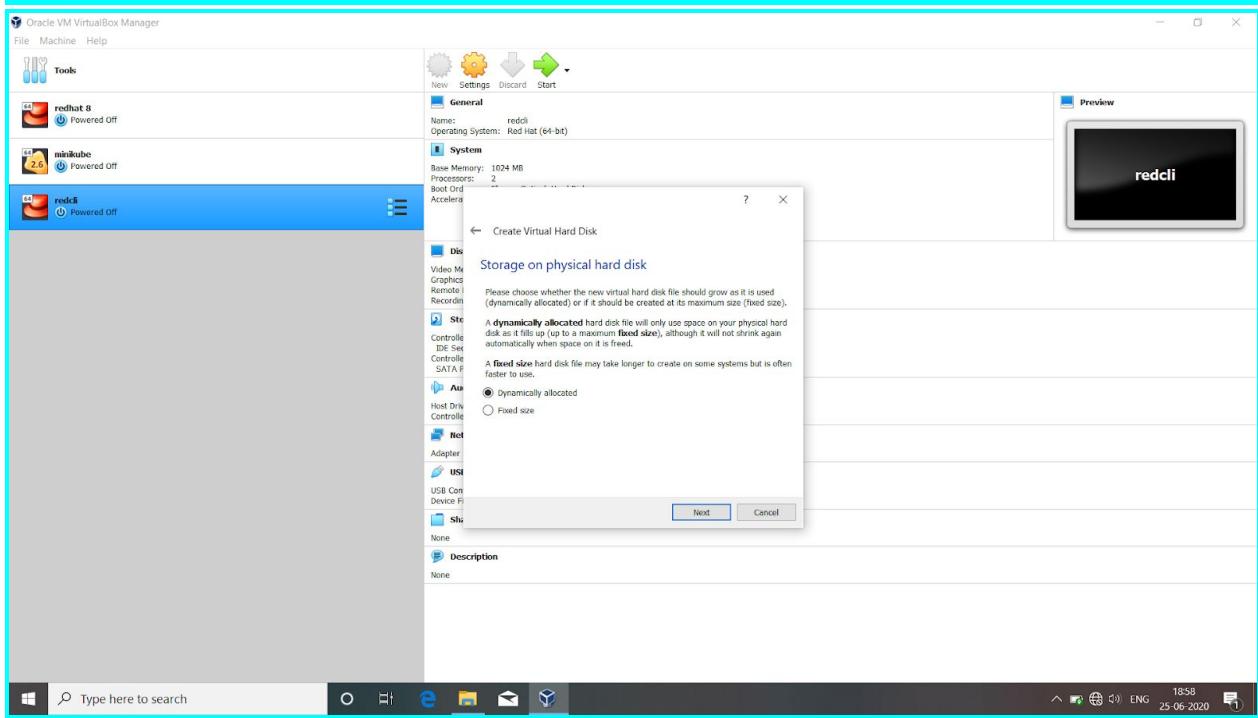
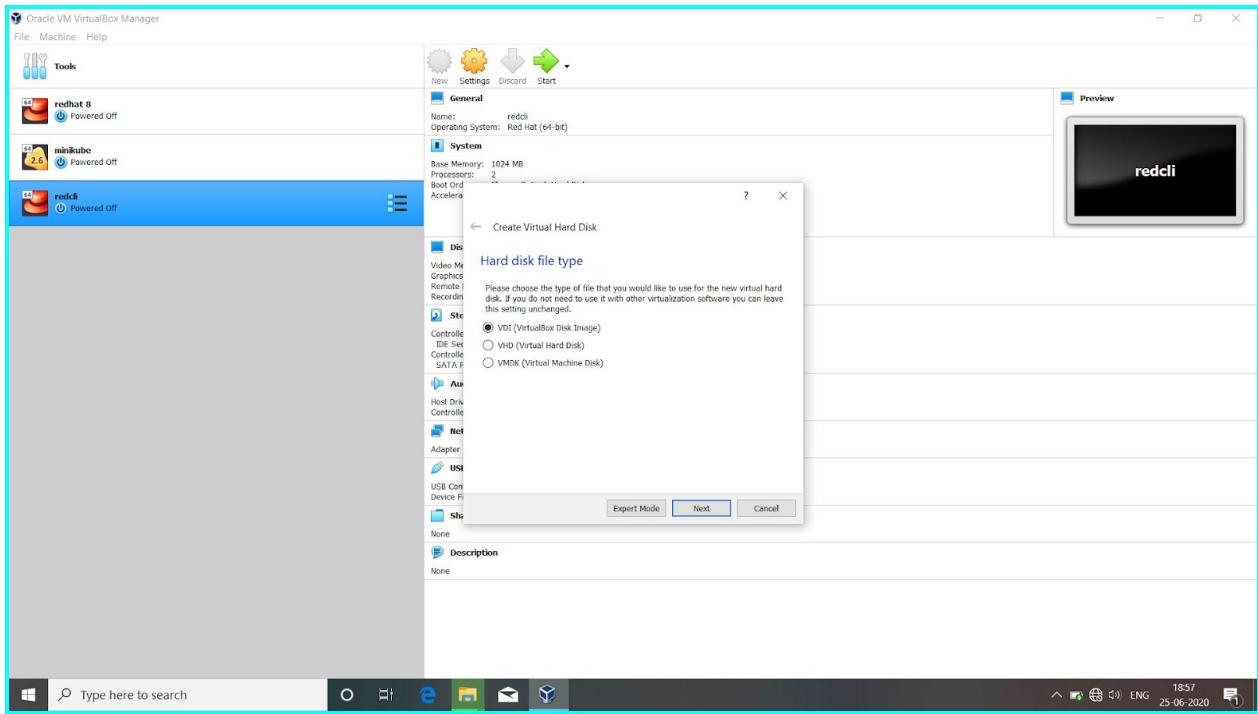
cpu=2

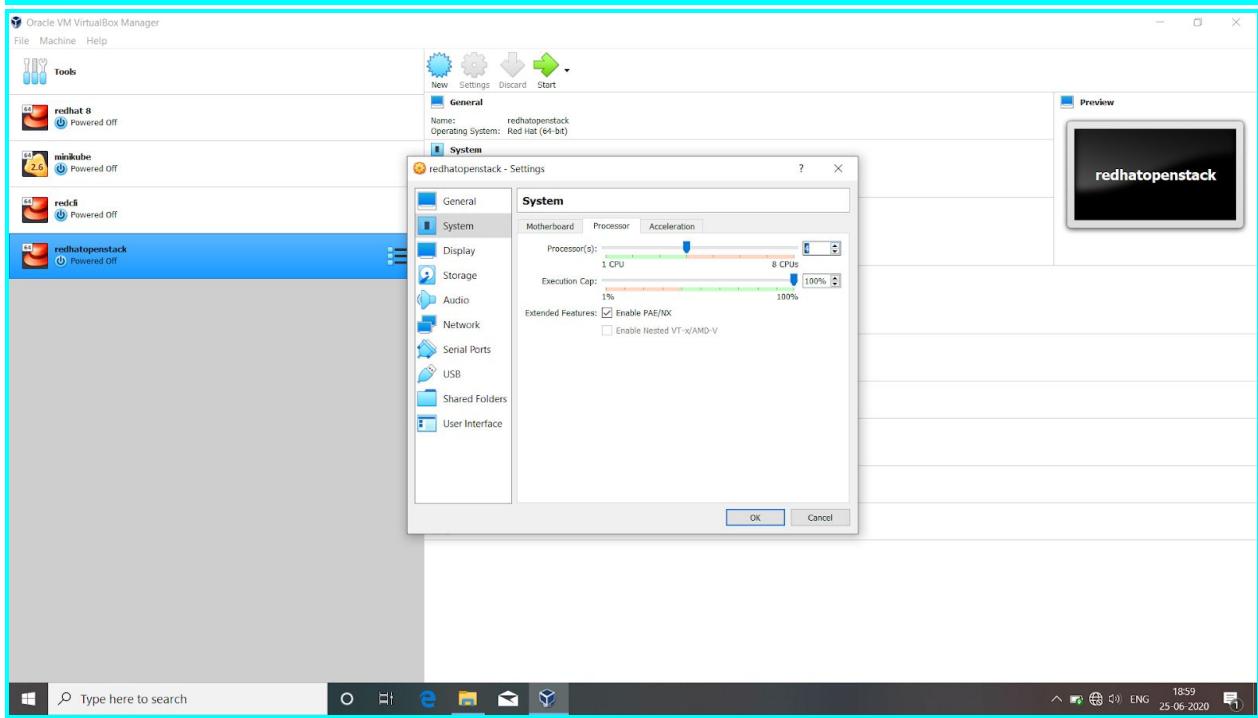
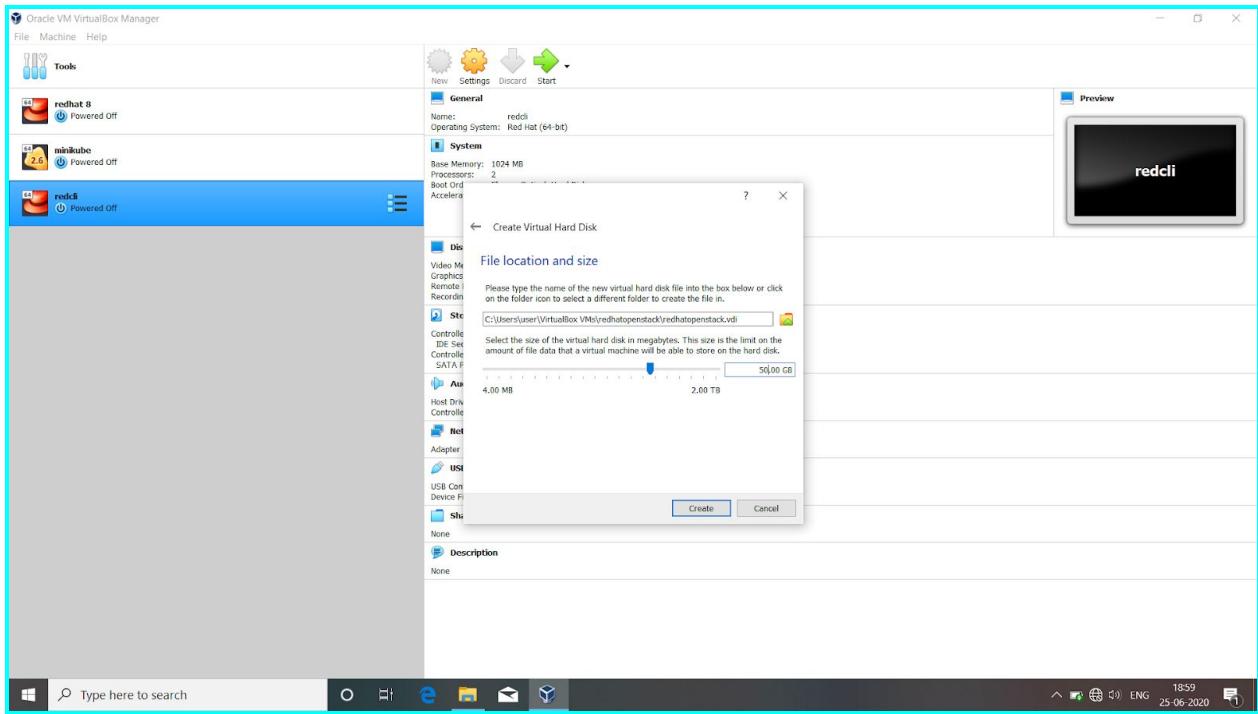


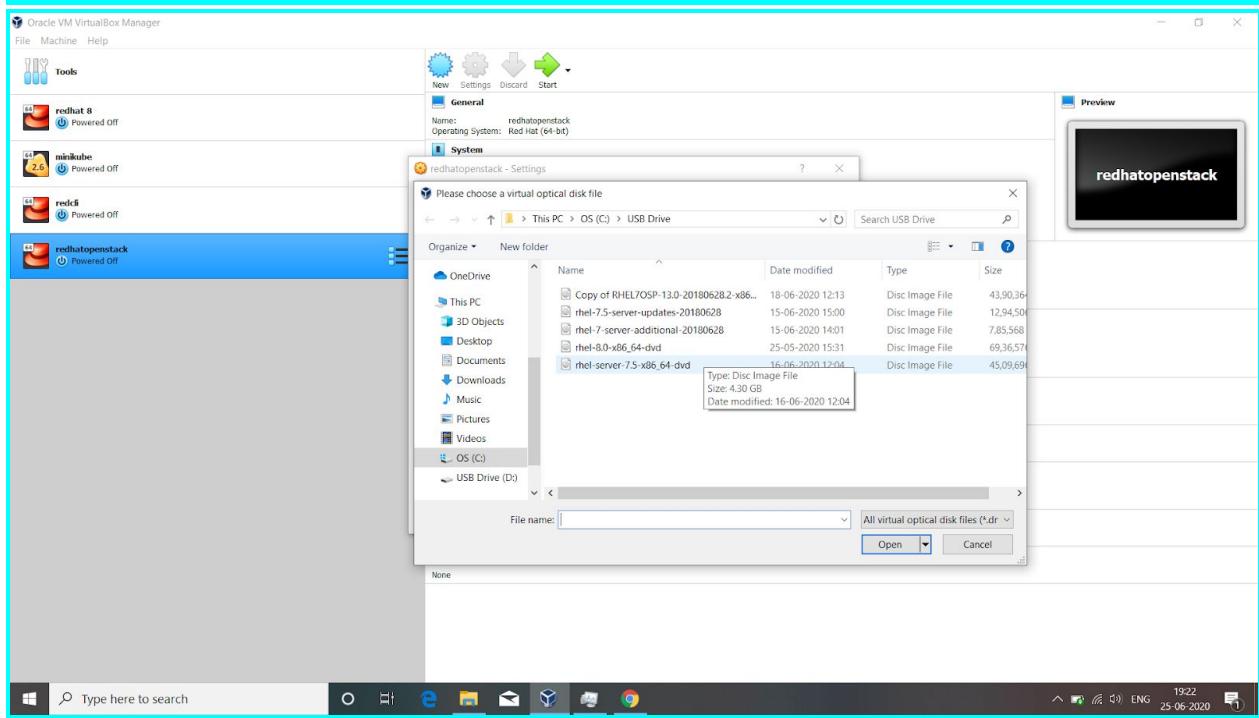
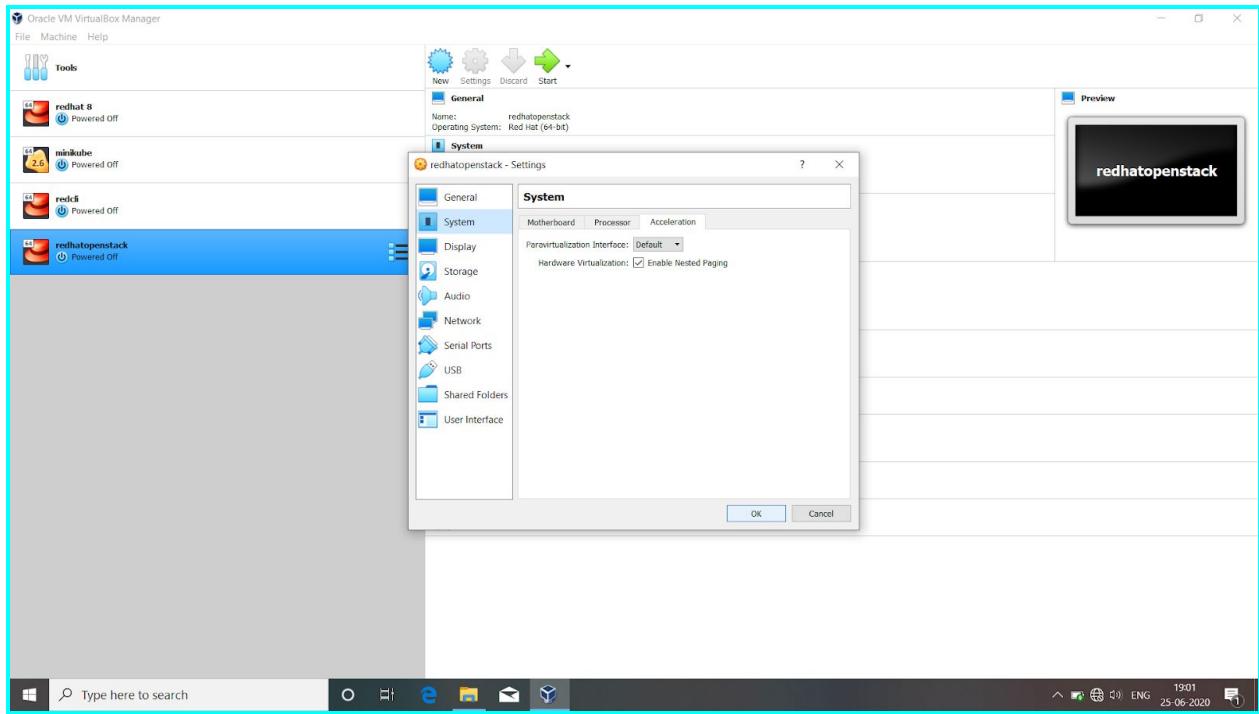
RHOSP

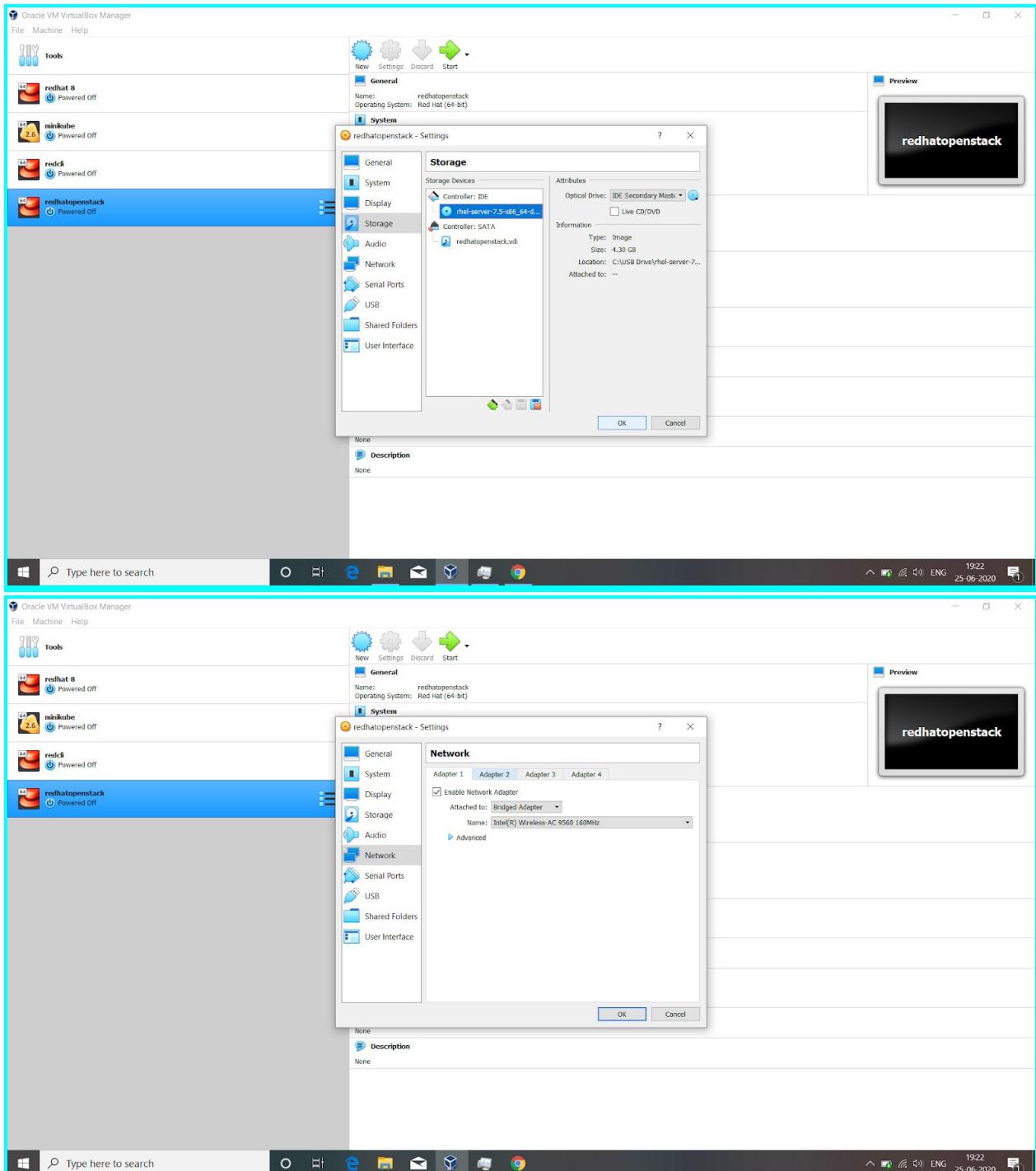
- > cloud computing is just like a nrml software
- > heterogeneous environment
- > how to contact saf ,delhi storage etc.
- > my intention is to provide 2gb storage
- > self service
- >interface(program) between user and the server
- > whenever developer need storage it will contact the interface and they will contact the rest of the storage
- > interface(driver) will provide the all the service
- > saf create the drive and provide to the interface
- > the name of the service is cloud computing
- > abstraction (hide) , cloud hide due to interface











if we want to share our resources and various others tools thn it is private cloud computing

KDUMP**RED HAT ENTERPRISE LINUX 7.5 INSTALLATION**

Done

Help!



us

Kdump is a kernel crash dumping mechanism. In the event of a system crash, kdump will capture information from your system that can be invaluable in determining the cause of the crash. Note that kdump does require reserving a portion of system memory that will be unavailable for other uses.

 Enable kdumpKdump Memory Reservation: Automatic ManualMemory To Be Reserved (MB): 128 - +

Total System Memory (MB): 7982

Usable System Memory (MB): 7854

NETWORK & HOST NAME

RED HAT ENTERPRISE LINUX 7.5 INSTALLATION

Done**Help!****Ethernet (enp0s3)**

Intel Corporation 82540EM Gigabit Ethernet Controller (rev 01)

+**-****Configure...**Host name: **Apply**

Current host name: localhost

**Ethernet (enp0s3)**

Disconnected



Hardware Address 08:00:27:04:DD:49

Speed 1000 Mb/s

Subnet Mask 127.0.0.1

INSTALLATION DESTINATION**RED HAT ENTERPRISE LINUX 7.5 INSTALLATION****Done****Help!****Device Selection**

Select the device(s) you'd like to install to. They will be left untouched until you click on the main menu's "Begin Installation" button.

Local Standard Disks

50 GiB



ATA VBOX HARDDISK

sda / 50 GiB free

*Disks left unselected here will not be touched.***Specialized & Network Disks****Add a disk...***Disks left unselected here will not be touched.***Other Storage Options****Partitioning**

- Automatically configure partitioning. I will configure partitioning.
 I would like to make additional space available.

[Full disk summary and boot loader...](#)1 disk selected; 50 GiB capacity; 50 GiB free [Refresh...](#)

SOFTWARE SELECTION

Done

RED HAT ENTERPRISE LINUX 7.5 INSTALLATION



Help!

Base Environment

- Minimal Install**
Basic functionality.
- Infrastructure Server**
Server for operating network infrastructure services.
- File and Print Server**
File, print, and storage server for enterprises.
- Basic Web Server**
Server for serving static and dynamic internet content.
- Virtualization Host**
Minimal virtualization host.
- Server with GUI**
Server for operating network infrastructure services, with a GUI.

Add-Ons for Selected Environment

- Debugging Tools**
Tools for debugging misbehaving applications and diagnosing performance problems.
- Compatibility Libraries**
Compatibility libraries for applications built on previous versions of Red Hat Enterprise Linux.
- Development Tools**
A basic development environment.
- Security Tools**
Security tools for integrity and trust verification.
- Smart Card Support**
Support for using smart card authentication.
- System Administration Tools**
Utilities useful in system administration.

```
Red Hat Enterprise Linux Server 7.5 (Maipo)
Kernel 3.10.0-862.el7.x86_64 on an x86_64

openstack login: root
Password:
[root@openstack ~]# free -m
total        used        free      shared  buff/cache   available
Mem:       7982         156       7683          8        143       7606
Swap:      5119           0       5119
[root@openstack ~]# _
```

```
"/etc/yum.repos.d/dvd.repo" [New] ?L, 93C written
[root@openstack ~]# yum repolist
Loaded plugins: product-id, search-disabled-repos, subscription-manager
This system is not registered with an entitlement server. You can use subscription-manager to register.
Repository 'dvd' is missing name in configuration, using id
Repository 'dvd1' is missing name in configuration, using id
file:///dvd/BaseOS/repo/repomd.xml: [Errno 14] curl#37 - "Couldn't open file /dvd/BaseOS/repo/repomd.xml"
Trying other mirror.
file:///dvd/BaseOS/repo/repomd.xml: [Errno 14] curl#37 - "Couldn't open file /dvd/BaseOS/repo/repomd.xml"
Trying other mirror.
file:///dvd/AppStream/repo/repomd.xml: [Errno 14] curl#37 - "Couldn't open file /dvd/AppStream/repo/repomd.xml"
Trying other mirror.
repo id                                repo name      status
dvd                                     dvd            0
dvd1                                    dvd1           0
repolist: 0
[root@openstack ~]# history
 1 free -m
 2 mkdir /dvd
 3 mount /dev/cdrom /dvd
 4 vi /etc/yum.repos.d/dvd.repo
 5 yum repolist
 6 history
[root@openstack ~]#
```

```
[dvd]
baseurl=file:///dvd/BaseOS
gpgcheck=0

[dvd1]
baseurl=file:///dvd/AppStream
gpgcheck=0
[root@openstack ~]# cd /dvd
[root@openstack dvd]# ls
addons extra_files.json isolinux Packages RPM-GPG-KEY-redhat-release
EFI GPL LiveOS repodata TRANS.TBL
EULA images media.repo RPM-GPG-KEY-redhat-beta
[root@openstack dvd]# fdisk -l

Disk /dev/sda: 53.7 GB, 53687091200 bytes, 104857600 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x00afaf02

      Device Boot   Start     End   Blocks Id System
/dev/sda1  *    2048 2099199   1048576  83 Linux
/dev/sda2        2099200 104857599 51379200  8e Linux LVM

Disk /dev/mapper/rhel_openstack-root: 47.2 GB, 47240445952 bytes, 92266496 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/mapper/rhel_openstack-swap: 5368 MB, 5368709120 bytes, 10485760 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

[root@openstack dvd]# _
```

```
[dvd]
baseurl=file:///dvd_
gpgcheck=0
```

```
-- INSERT --
```

```
"/etc/yum.repos.d/dvd.repo" 3L, 37C written
[root@openstack dvd]# yum repolist
Loaded plugins: product-id, search-disabled-repos, subscription-manager
This system is not registered with an entitlement server. You can use subscription-manager to register.
Repository 'dvd' is missing name in configuration, using id
dvd
(1/2): dvd/group_gz
(2/2): dvd/primary_db
repo id                                repo name          status
dvd                                         dvd              5,099
repolist: 5,099
[root@openstack dvd]# _
```

```
"/etc/yum.repos.d/dvd.repo" 3L, 37C written
[root@openstack dvd]# yum repolist
Loaded plugins: product-id, search-disabled-repos, subscription-manager
This system is not registered with an entitlement server. You can use subscription-manager to register.
Repository 'dvd' is missing name in configuration, using id
dvd
(1/2): dvd/group_gz
(2/2): dvd/primary_db
repo id                                repo name          status
dvd                                     dvd               5,099
repolist: 5,099
[root@openstack dvd]# yum install net-tools
Loaded plugins: product-id, search-disabled-repos, subscription-manager
This system is not registered with an entitlement server. You can use subscription-manager to register.
Repository 'dvd' is missing name in configuration, using id
Resolving Dependencies
--> Running transaction check
--> Package net-tools.x86_64 0:2.0-0.22.20131004git.el7 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package           Arch      Version       Repository  Size
=====
Installing:
net-tools         x86_64   2.0-0.22.20131004git.el7      dvd      306 k

Transaction Summary
=====
Install 1 Package

Total download size: 306 k
Installed size: 917 k
Is this ok [y/d/N]: y
```

```

Total download size: 306 k
Installed size: 917 k
Is this ok [y/d/N]: y
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : net-tools-2.0-0.22.20131004git.el7.x86_64 1/1
  dvd/productid
  Verifying : net-tools-2.0-0.22.20131004git.el7.x86_64 1/1

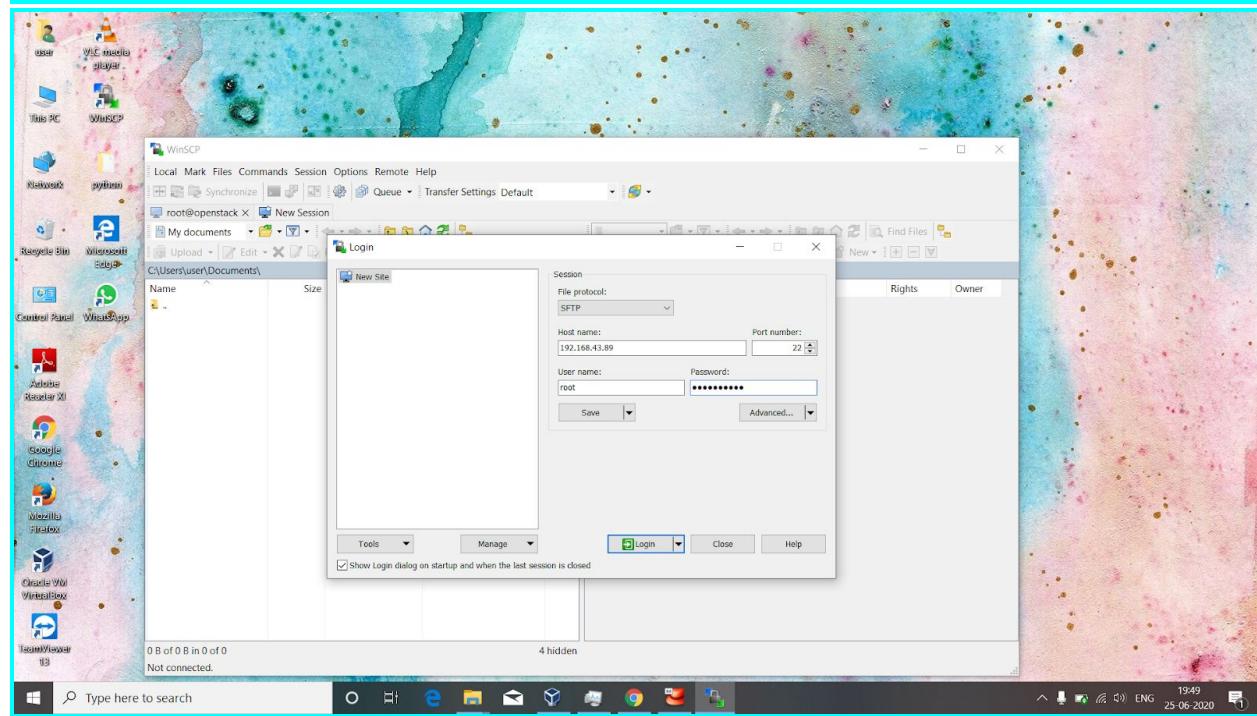
Installed:
  net-tools.x86_64 0:2.0-0.22.20131004git.el7

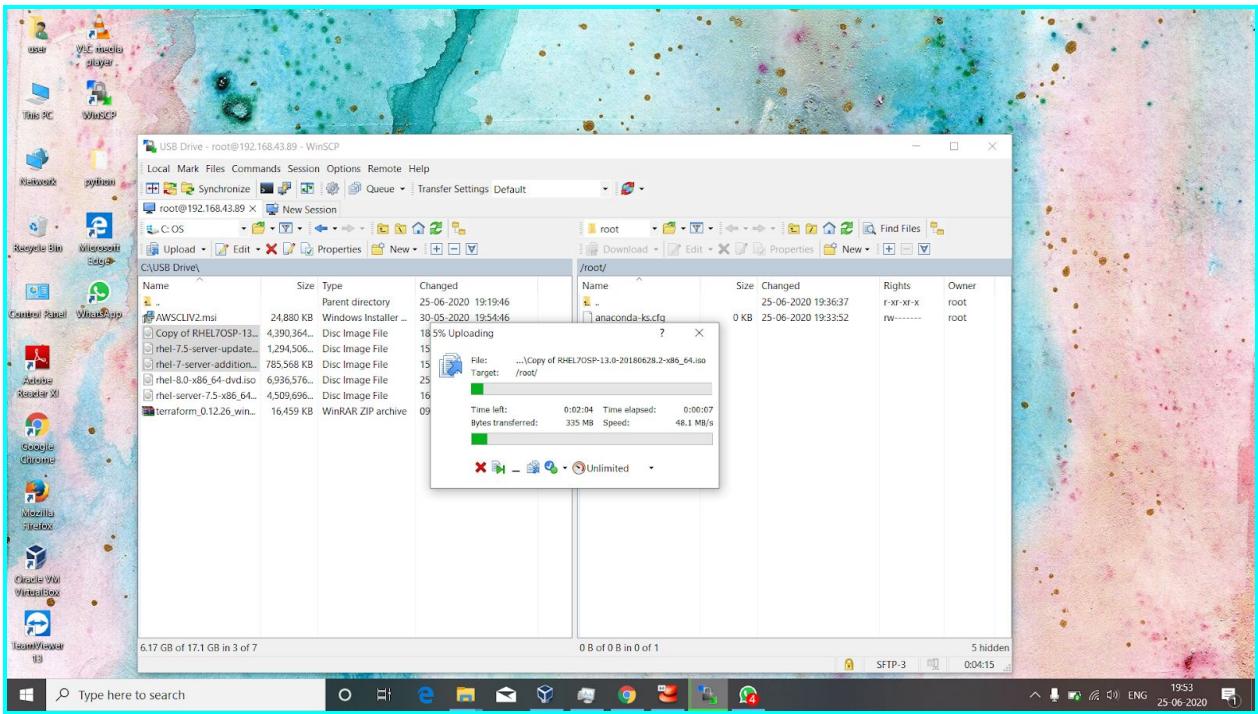
Complete!
[root@openstack dvd]# ifconfig
ens3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
      inet 192.168.43.89  netmask 255.255.255.0  broadcast 192.168.43.255
        inet6 2409:4052:e82:2f39:476c:2f17:4f89:58f0  prefixlen 64  scopeid 0x0<global>
          inet6 fe80::6f69:44b0:3587:c0ff  prefixlen 64  scopeid 0x20<link>
            ether 08:00:27:04:dd:49  txqueuelen 1000  (Ethernet)
              RX packets 121  bytes 11478 (11.2 KiB)
              RX errors 0  dropped 0  overruns 0  frame 0
              TX packets 18  bytes 2002 (1.9 KiB)
              TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
      inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
          loop  txqueuelen 1000  (Local Loopback)
            RX packets 0  bytes 0 (0.0 B)
            RX errors 0  dropped 0  overruns 0  frame 0
            TX packets 0  bytes 0 (0.0 B)
            TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

[root@openstack dvd]# _

```





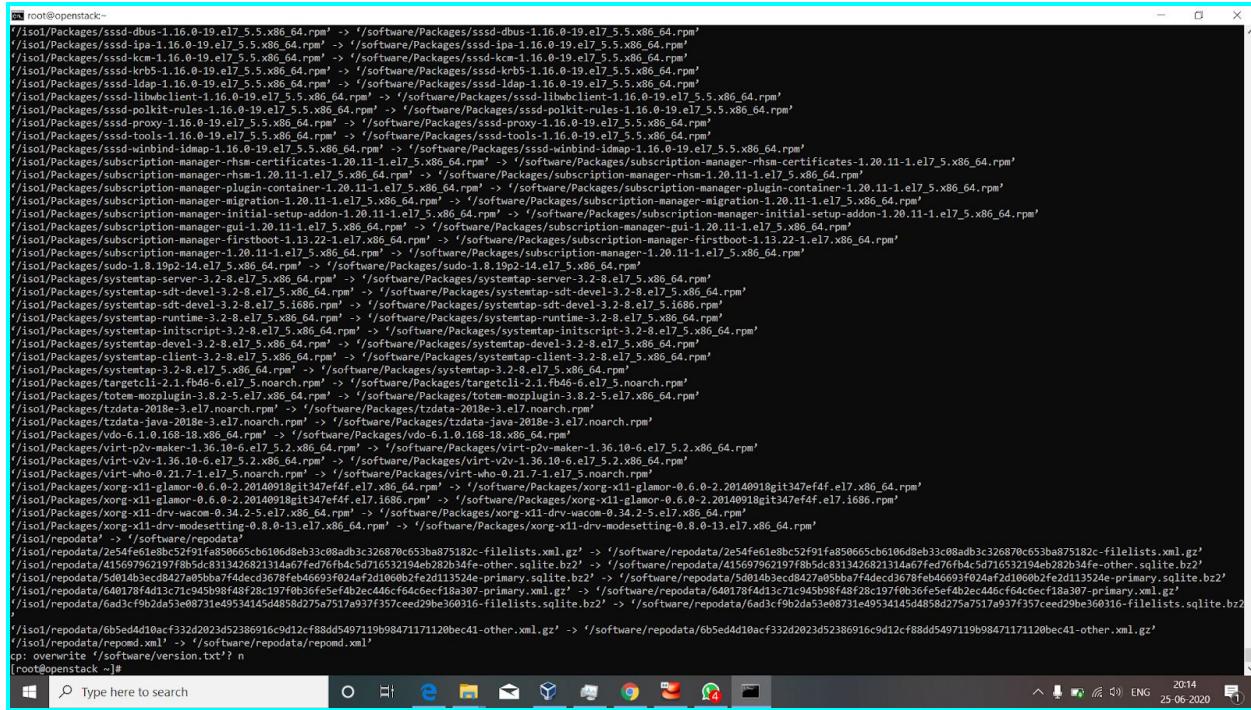
```
1 cd /root/
2 ls
3 mkdir /iso
4 mount Copy of RHEL7OSP-13.0-20180628.2-x86_64.iso /iso/
5 mount Copy\ of RHEL7OSP-13.0-20180628.2-x86_64.iso /iso/
6 cd /iso/
7 ls
8 mkdir /software
9 cp -rvf /iso/* /software
10 cd ..
11 mkdir /iso1
12 ls
13 cd /root/
14 ls
15 mount rhel-7.5-server-updates-20180628.iso /iso1/
16 cp -rvf /iso1/* /software
17 mkdir /iso2
18 ls
19 mount rhel-7-server-additional-20180628.iso /iso2/
20 cp -rvf /iso2/* /software
21 rm * /iso
22 vi /etc/yum.repos.d/dvd.repo
23 yum repolist
24 cd /software
25 ls
```

26 yum install createrepo

27 createrepo -v .

28 history

```
[root@openstack ~]#
[11/06/2020 11:16:09] yum install createrepo
[11/06/2020 11:16:09] createrepo -v .
[11/06/2020 11:16:09] history
```



The screenshot shows a Windows-style terminal window with a blue title bar containing the text 'Terminal'. The main area of the window displays the command history from the previous session. The commands listed are:

```
[root@openstack ~]#
[11/06/2020 11:16:09] yum install createrepo
[11/06/2020 11:16:09] createrepo -v .
[11/06/2020 11:16:09] history
```

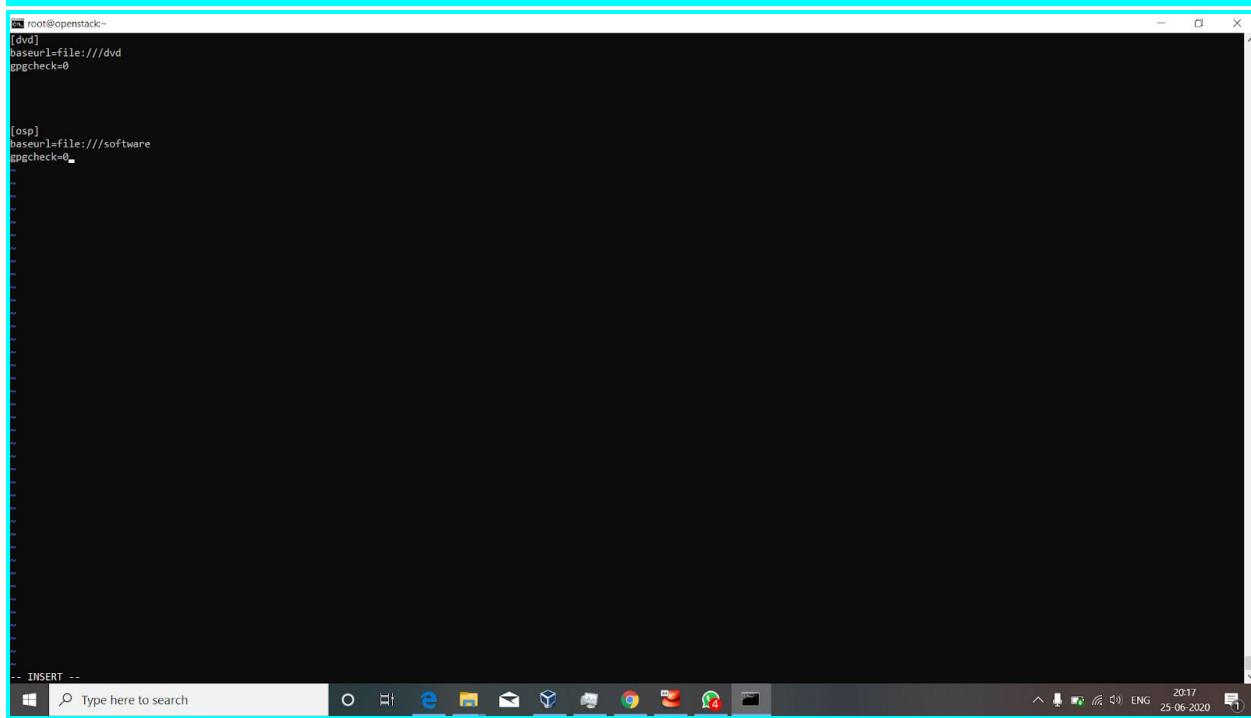
```
[root@openstack ~]#
[dvd]
baseurl=file:///software
ggcheck=0
```



```
[osp]
baseurl=file:///software
ggcheck=0
```



```
-- INSERT --
```



The screenshot shows a Windows-style terminal window with a blue title bar containing the text 'Terminal'. The main area of the window displays the command history from the previous session. The commands listed are:

```
[root@openstack ~]#
[dvd]
baseurl=file:///software
ggcheck=0
```



```
[osp]
baseurl=file:///software
ggcheck=0
```



```
-- INSERT --
```

```
[root@openstack software]# packstack --genpwd --genisoimage  
Worker 2: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-isodate-0.5.4-8.el7.noarch.rpm  
Worker 3: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-jwt-1.5.3-1.el7.noarch.rpm  
Worker 0: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-msrest-0.4.18-1.el7.noarch.rpm  
Worker 1: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-msrestazure-0.4.16-3.el7.noarch.rpm  
Worker 2: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-s3transfer-0.1.10-8.el7.noarch.rpm  
Worker 3: reading rhel-ha-for-rhel-7-server-rpms/Packages/resource-agents-3.9.5-124.el7.x86_64.rpm  
Worker 0: reading rhel-ha-for-rhel-7-server-rpms/Packages/sbd-1.3.1-7.el7.x86_64.rpm  
Worker 1: reading rhel-ha-for-rhel-7-server-rpms/Packages/virt-p2v-1.36.3-2.el7.noarch.rpm  
Workers Finished  
Saving file lists metadata  
Saving other metadata  
Generating sqlite DBs  
Starting other db creation: Thu Jun 25 20:19:00 2020  
Ending other db creation: Thu Jun 25 20:19:01 2020  
Starting filelists db creation: Thu Jun 25 20:19:01 2020  
Ending filelists db creation: Thu Jun 25 20:19:05 2020  
Starting primary db creation: Thu Jun 25 20:19:05 2020  
Ending primary db creation: Thu Jun 25 20:19:06 2020  
Sqlite DBs complete  
[root@openstack software]# history  
1 cd /root/  
2 ls  
3 mkdir /iso  
4 mount /Copy\ of\ RHEL7OSP-13.0-20180628.2-x86_64.iso /iso/  
5 mount /Copy\ of\ RHEL7OSP-13.0-20180628.2-x86_64.iso /iso/  
6 cd /iso/  
7 ls  
8 mkdir /software  
9 cp -rvf /iso/* /software  
10 cd ..  
11 mkdir /iso1  
12 ls  
13 cd /root/  
14 ls  
15 mount /rhel-7.5-server-updates-20180628.iso /iso1/  
16 cp -rvf /iso1/* /software  
17 mkdir /iso2  
18 ls  
19 mount /rhel-7-server-additional-20180628.iso /iso2/  
20 cp -rvf /iso2/* /software  
21 rm * /iso  
22 vi /etc/yum.repos.d/dvd.repo  
23 yum repolist  
24 cd /software  
25 ls  
26 yum install createrepo  
27 createrepo -v .  
28 history  
[root@openstack software]#
```

[root@openstack software]# cat /etc/yum.repos.d/dvd.repo

[dvd]

baseurl=file:///dvd

gpgcheck=0

[osp]

baseurl=file:///software

gpgcheck=0

cinder(block storage as a service)

swift(object storage as a service)

manila(file storage as a service)

nova(compute storage as a service)

neutron(naaS)

30 yum install packstack-openstack

31 yum clean-all

32 yum repolist

33 yum clean-all

34 yum clean all

35 yum repolist

36 yum install openstack-packstack

```
root@openstack:~#
'/iso1/Packages/sssd-dbus-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-dbus-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-ipa-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-ipa-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-kcm-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-kcm-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-krb5-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-krb5-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-ldap-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-ldap-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-libtclient-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-libtclient-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-libsasl-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-libsasl-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-proxy-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-proxy-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sssd-tools-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-tools-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/sss-winbind-idmap-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sss-winbind-idmap-1.16.0-19.el7_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-rhsm-1.20.11.1-e17_5.x86_64.rpm' -> '/software/Packages/subscription-manager-rhsm-1.20.11.1-e17_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-rhsm-certificates-1.20.11.1-e17_5.x86_64.rpm' -> '/software/Packages/subscription-manager-rhsm-certificates-1.20.11.1-e17_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-plugin-container-1.20.11.1-e17_5.x86_64.rpm' -> '/software/Packages/subscription-manager-plugin-container-1.20.11.1-e17_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-migration-1.20.11.1-e17_5.x86_64.rpm' -> '/software/Packages/subscription-manager-migration-1.20.11.1-e17_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-initial-setup-addon-1.20.11.1-e17_5.x86_64.rpm' -> '/software/Packages/subscription-manager-initial-setup-addon-1.20.11.1-e17_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-gui-1.20.11.1-e17_5.x86_64.rpm' -> '/software/Packages/subscription-manager-gui-1.20.11.1-e17_5.x86_64.rpm'
'/iso1/Packages/subscription-manager-firstboot-1.13.22-1.e17.x86_64.rpm' -> '/software/Packages/subscription-manager-firstboot-1.13.22-1.e17.x86_64.rpm'
'/iso1/Packages/subscription-manager-1.13.22-1.e17.x86_64.rpm' -> '/software/Packages/subscription-manager-1.13.22-1.e17.x86_64.rpm'
'/iso1/Packages/sudo-1.8.19p2-14.el7.x86_64.rpm' -> '/software/Packages/sudo-1.8.19p2-14.el7.x86_64.rpm'
'/iso1/Packages/systemd-243-2.x86_64.rpm' -> '/software/Packages/systemd-243-2.x86_64.rpm'
'/iso1/Packages/systemd-sdtd-devel-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemd-sdtd-devel-3.2-8.el7_5.x86_64.rpm'
'/iso1/Packages/systemtap-sdt-devel-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-sdt-devel-3.2-8.el7_5.x86_64.rpm'
'/iso1/Packages/systemtap-runtime-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-runtime-3.2-8.el7_5.x86_64.rpm'
'/iso1/Packages/systemtap-initscript-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-initscript-3.2-8.el7_5.x86_64.rpm'
'/iso1/Packages/systemtap-devel-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-devel-3.2-8.el7_5.x86_64.rpm'
'/iso1/Packages/systemtap-client-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-client-3.2-8.el7_5.x86_64.rpm'
'/iso1/Packages/systemtap-3.2-8.el7_5.noarch.rpm' -> '/software/Packages/systemtap-3.2-8.el7_5.noarch.rpm'
'/iso1/Packages/targetcli-2.1.fb46-6.el7.noarch.rpm' -> '/software/Packages/targetcli-2.1.fb46-6.el7.noarch.rpm'
'/iso1/Packages/totem-moplugin-3.8.2-5.el7.x86_64.rpm' -> '/software/Packages/totem-moplugin-3.8.2-5.el7.x86_64.rpm'
'/iso1/Packages/tzdata-2018e-3.el7.noarch.rpm' -> '/software/Packages/tzdata-2018e-3.el7.noarch.rpm'
'/iso1/Packages/tzdata-java-2018e-3.el7.noarch.rpm' -> '/software/Packages/tzdata-java-2018e-3.el7.noarch.rpm'
'/iso1/Packages/vdo-6.1.0.168-18.x86_64.rpm' -> '/software/Packages/vdo-6.1.0.168-18.x86_64.rpm'
'/iso1/Packages/virt-v2v-1.36.18-6.el7.5.x86_64.rpm' -> '/software/Packages/virt-v2v-1.36.18-6.el7.5.x86_64.rpm'
'/iso1/Packages/virt-who-0.21.7-1.el7_5.noarch.rpm' -> '/software/Packages/virt-who-0.21.7-1.el7_5.noarch.rpm'
'/iso1/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4f.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4f.el7.x86_64.rpm'
'/iso1/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4f.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4f.el7.x86_64.rpm'
'/iso1/Packages/xorg-x11-driv-wacom-0.34.2-5.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-driv-wacom-0.34.2-5.el7.x86_64.rpm'
'/iso1/Packages/xorg-x11-driv-modesetting-0.8.0-13.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-driv-modesetting-0.8.0-13.el7.x86_64.rpm'
'/iso1/repodata -> '/software/repodata'
'/iso1/repodata-2e54fe61e8bc529f1fa85065cb106debb33c326870c653ba875182c-filelists.xml.gz' -> '/software/repodata-2e54fe61e8bc529f1fa85065cb106debb33c326870c653ba875182c-filelists.xml.gz'
'/iso1/repodata-41569796219778b5dc8314262821314b67fed76fb4c5d716532194eb282b34fe-other.sqlite.bz2' -> '/software/repodata-41569796219778b5dc8314262821314b67fed76fb4c5d716532194eb282b34fe-other.sqlite.bz2'
'/iso1/repodata-5d014b3ec8d427a05ba7f4dec3d678feba6693f024f2d1060b2fe2d113524e-primary.sqlite.bz2' -> '/software/repodata-5d014b3ec8d427a05ba7f4dec3d678feba6693f024f2d1060b2fe2d113524e-primary.sqlite.bz2'
'/iso1/repodata-6d01784fd13c1c94598948f28c197f0b56f5ef42ec46cf46ccff18a307-primary.xml.gz' -> '/software/repodata-6d01784fd13c1c94598948f28c197f0b56f5ef42ec46cf46ccff18a307-primary.xml.gz'
'/iso1/repodata-6ad3cf9b2da53a0731e49534145d4858d275a7517a937f357ced299e560316-filelists.sqlite.bz2' -> '/software/repodata-6ad3cf9b2da53a0731e49534145d4858d275a7517a937f357ced299e560316-filelists.sqlite.bz2'

[baseurl=file:///software]
[baseurl=file:///software/baseurl]
[gpgcheck=0]

[os]
baseurl=file:///software
gpgcheck=0

-- INSERT --
```

```
root@openstack:~#
[dvd]
baseurl=file:///dvd
gpgcheck=0

[os]
baseurl=file:///software
gpgcheck=0

-- INSERT --
```

```
[root@openstack software]
[worker 2: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-isodlate-0.5.4-8.el7.noarch.rpm
[worker 3: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-jwt-1.5.3-1.el7.noarch.rpm
[worker 0: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-wsrest-0.4.18-1.el7.noarch.rpm
[worker 1: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-msrestazure-0.4.16-3.el7.noarch.rpm
[worker 2: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-s3transfer-0.1.10-8.el7.noarch.rpm
[worker 3: reading rhel-ha-for-rhel-7-server-rpms/Packages/resource-agents-3.9.5-124.el7.x86_64.rpm
[worker 0: reading rhel-ha-for-rhel-7-server-rpms/Packages/sbd-1.3.1-7.el7.x86_64.rpm
[worker 1: reading rhel-ha-for-rhel-7-server-rpms/Packages/virt-p2v-1.36.3-2.el7.noarch.rpm
[worker Finished
Saving Primary metadata
Saving file lists metadata
Saving file metadata
Generating soltis DBs
Starting other db creation: Thu Jun 25 20:19:00 2020
Ending other db creation: Thu Jun 25 20:19:01 2020
Starting filelists db creation: Thu Jun 25 20:19:01 2020
Ending filelists db creation: Thu Jun 25 20:19:05 2020
Starting primary db creation: Thu Jun 25 20:19:05 2020
Ending primary db creation: Thu Jun 25 20:19:06 2020
SQLite DBs complete
[root@openstack software]# history
  1 cd /root/
  2 ls
  3 mkdir /iso
  4 mount Copy of RHEL70SP-13.0-20180628.2-x86_64.iso /iso/
  5 mount Copy of RHEL70SP-13.0-20180628.2-x86_64.iso /iso/
  6 cd /iso/
  7 ls
  8 mkdir /software
  9 cp -rvf /iso/* /software
 10 cd ..
 11 mkdir /iso1
 12 ls
 13 cd /root/
 14 ls
 15 mount rhel-7.5-server-updates-20180628.iso /iso1/
 16 cp -rvf /iso1/* /software
 17 mkdir /iso2
 18 ls
 19 mount rhel-7-server-additional-20180628.iso /iso2/
 20 cp -rvf /iso2/* /software
 21 rm *iso
 22 vi /etc/yum.repos.d/dvd.repo
 23 yum repolist
 24 cd /software
 25 ls
 26 yum install createrepo
 27 createrepo -v .
 28 history
[root@openstack software]#
```

```
root@openstack:software
#!/bin/bash
# THIS FILE IS ADDED FOR COMPATIBILITY PURPOSES
# It is highly advisable to create own systemd services or udev rules
# to run scripts during boot instead of using this file.
#
# In contrast to previous versions due to parallel execution during boot
# this script will NOT be run after all other services.
#
# Please note that you must run 'chmod +x /etc/rc.d/rc.local' to ensure
# that this script will be executed during boot.

touch /var/lock/subsys/local
mount /dev/cdrom /dvd
```

```
iron@openstack: ~# /isol/Packages/sssd-dbus-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-dbus-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-ipa-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-ipa-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-kcm-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-kcm-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-krb5-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-krb5-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-ldap-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-ldap-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-libnbdclient-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-libnbdclient-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-polkit-rules-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-polkit-rules-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-proxy-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-proxy-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-tools-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-tools-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-winbind-ldmap-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-winbind-ldmap-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/sssd-winbind-ldmap-1.16.0-19.el7_5.x86_64.rpm' -> '/software/Packages/sssd-winbind-ldmap-1.16.0-19.el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-rhsm-certificates-1.20.11.1-el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-rhsm-certificates-1.20.11.1-el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-rhsm-1.20.11.1-el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-rhsm-1.20.11.1-el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-plugin-compat-1.20.11.1-el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-plugin-compat-1.20.11.1-el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-remote-1.1-11.el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-remote-1.1-11.el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-initial-setup-addon-1.20.11.1-el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-initial-setup-addon-1.20.11.1-el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-gui-1.20.11.1-el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-gui-1.20.11.1-el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-firstboot-1.13.22-1.el7.x86_64.rpm' -> '/software/Packages/subscription-manager-firstboot-1.13.22-1.el7.x86_64.rpm'
/isol/Packages/subscription-manager-1.20.11.1-el7_5.x86_64.rpm' -> '/software/Packages/subscription-manager-1.20.11.1-el7_5.x86_64.rpm'
/isol/Packages/subscription-manager-1.19.20-14.el7.x86_64.rpm' -> '/software/Packages/subscription-manager-1.19.20-14.el7.x86_64.rpm'
/isol/Packages/systemtap-server-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-server-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/systemtap-sdt-devel-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-sdt-devel-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/systemtap-sdt-devel-3.2-8.el7_5.i686.rpm' -> '/software/Packages/systemtap-sdt-devel-3.2-8.el7_5.i686.rpm'
/isol/Packages/systemtap-runtime-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-runtime-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/systemtap-initscript-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-initscript-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/systemtap-devel-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-devel-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/systemtap-client-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-client-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/systemtap-3.2-8.el7_5.x86_64.rpm' -> '/software/Packages/systemtap-3.2-8.el7_5.x86_64.rpm'
/isol/Packages/tomcat-mosquitto-3.8.2-5.el7.x86_64.rpm' -> '/software/Packages/tomcat-mosquitto-3.8.2-5.el7.x86_64.rpm'
/isol/Packages/tomcat-mosquitto-3.8.2-5.el7.x86_64.rpm' -> '/software/Packages/tomcat-mosquitto-3.8.2-5.el7.x86_64.rpm'
/isol/Packages/tzdata-2018e-1.el7.noarch.rpm' -> '/software/Packages/tzdata-2018e-1.el7.noarch.rpm'
/isol/Packages/tzdata-java-2018e-3.el7.noarch.rpm' -> '/software/Packages/tzdata-java-2018e-3.el7.noarch.rpm'
/isol/Packages/vdome-6.1.9.158-18.x86_64.rpm' -> '/software/Packages/vdome-6.1.9.158-18.x86_64.rpm'
/isol/Packages/virt-p2v-maker-1.36.10-6.el7_5.x86_64.rpm' -> '/software/Packages/virt-p2v-maker-1.36.10-6.el7_5.x86_64.rpm'
/isol/Packages/virt-v2v-1.36.10-6.el7_5.x86_64.rpm' -> '/software/Packages/virt-v2v-1.36.10-6.el7_5.x86_64.rpm'
/isol/Packages/virt-wh-0.21.7-1.el7.noarch.rpm' -> '/software/Packages/virt-wh-0.21.7-1.el7.noarch.rpm'
/isol/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4.el7.x86_64.rpm'
/isol/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4.el7.16868.rpm' -> '/software/Packages/xorg-x11-glamor-0.6.0-2.20140918git347ef4.el7.16868.rpm'
/isol/Packages/xorg-x11-drw-wacom-34.2-5.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-drw-wacom-34.2-5.el7.x86_64.rpm'
/isol/Packages/xorg-x11-drw-modesetting-0.8-0.13.el7.x86_64.rpm' -> '/software/Packages/xorg-x11-drw-modesetting-0.8-0.13.el7.x86_64.rpm'
/isol/repodata/ -> '/software/repodata'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.wel.gz' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d032033808db2322878053ba873812cfilelist.xml.gz'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.wel.gz' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.xml.gz'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.wel.gz' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.xml.gz'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.wel.gz' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.xml.gz'
/isol/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2' -> '/software/repodata/_ZnC10ebc5f9f4086556cb106d0320673c20553ba873802cfilelist.sqlite.bz2'
/isol/repo/epmd-0.65d4ad10acfa323d20253289616c9d12c8ffdd54957199847117120bec41-other.xml.gz' -> '/software/repo/epmd-0.65d4ad10acfa323d20253289616c9d12c8ffdd54957199847117120bec41-other.xml.gz'
/isol/repo/repomd.xml' -> '/software/repo/repomd.xml'
cp: open: '/software/version/version.txt'? n
[root@openstack ~]#
```

```
[root@openstack software]
[worker 2: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-isodlate-0.5.4-8.el7.noarch.rpm
[worker 3: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-jwt-1.5.3-1.el7.noarch.rpm
[worker 0: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-wsrest-0.4.18-1.el7.noarch.rpm
[worker 1: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-msrestazure-0.4.16-3.el7.noarch.rpm
[worker 2: reading rhel-ha-for-rhel-7-server-rpms/Packages/python-s3transfer-0.1.10-8.el7.noarch.rpm
[worker 3: reading rhel-ha-for-rhel-7-server-rpms/Packages/resource-agents-3.9.5-124.el7.x86_64.rpm
[worker 0: reading rhel-ha-for-rhel-7-server-rpms/Packages/sbd-1.3.1-7.el7.x86_64.rpm
[worker 1: reading rhel-ha-for-rhel-7-server-rpms/Packages/virt-p2v-1.36.3-2.el7.noarch.rpm
[worker Finished
Saving Primary metadata
Saving file lists metadata
Saving file metadata
Generating soltis DBs
Starting other db creation: Thu Jun 25 20:19:00 2020
Ending other db creation: Thu Jun 25 20:19:01 2020
Starting filelists db creation: Thu Jun 25 20:19:01 2020
Ending filelists db creation: Thu Jun 25 20:19:05 2020
Starting primary db creation: Thu Jun 25 20:19:05 2020
Ending primary db creation: Thu Jun 25 20:19:06 2020
SQLite DBs complete
[root@openstack software]# history
  1 cd /root/
  2 ls
  3 mkdir /iso
  4 mount Copy of RHEL70SP-13.0-20180628.2-x86_64.iso /iso/
  5 mount Copy of RHEL70SP-13.0-20180628.2-x86_64.iso /iso/
  6 cd /iso/
  7 ls
  8 mkdir /software
  9 cp -rvf /iso/* /software
 10 cd ..
 11 mkdir /iso1
 12 ls
 13 cd /root/
 14 ls
 15 mount rhel-7.5-server-updates-20180628.iso /iso1/
 16 cp -rvf /iso1/* /software
 17 mkdir /iso2
 18 ls
 19 mount rhel-7-server-additional-20180628.iso /iso2/
 20 cp -rvf /iso2/* /software
 21 rm *iso
 22 vi /etc/yum.repos.d/dvd.repo
 23 yum repolist
 24 cd /software
 25 ls
 26 yum install createrepo
 27 createrepo -v .
 28 history
[root@openstack software]#
```

```
root@openstack:software
#!/bin/bash
# THIS FILE IS ADDED FOR COMPATIBILITY PURPOSES
# It is highly advisable to create own systemd services or udev rules
# to run scripts during boot instead of using this file.
#
# In contrast to previous versions due to parallel execution during boot
# this script will NOT be run after all other services.
#
# Please note that you must run 'chmod +x /etc/rc.d/rc.local' to ensure
# that this script will be executed during boot.

touch /var/lock/subsys/local
mount /dev/cdrom /dvd
```



```
Red Hat Enterprise Linux Server 7.5 (Maipo)
Kernel 3.10.0-862.el7.x86_64 on an x86_64
```

```
openstack login: root
Password:
Last login: Thu Jun 25 20:09:23 from 192.168.43.189
[root@openstack ~]# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
        inet 192.168.43.186 netmask 255.255.255.0 broadcast 192.168.43.255
          inet6 fe80::a00:27ff:fe04:dd49 prefixlen 64 scopeid 0x20<link>
            inet6 2401:4900:463f:233f:a00:27ff:fe04:dd49 prefixlen 64 scopeid 0x0<global>
              ether 08:00:27:04:dd:49 txqueuelen 1000 (Ethernet)
                RX packets 10 bytes 1613 (1.5 KiB)
                RX errors 0 dropped 0 overruns 0 frame 0
                TX packets 13 bytes 1554 (1.5 KiB)
                TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
          inet6 ::1 prefixlen 128 scopeid 0x10<host>
            loop txqueuelen 1000 (Local Loopback)
              RX packets 0 bytes 0 (0.0 B)
              RX errors 0 dropped 0 overruns 0 frame 0
              TX packets 0 bytes 0 (0.0 B)
              TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@openstack ~]# systemctl status NetworkManager
● NetworkManager.service - Network Manager
  Loaded: loaded (/usr/lib/systemd/system/NetworkManager.service; disabled; vendor preset: enabled)
  Active: inactive (dead)
    Docs: man:NetworkManager(8)
[root@openstack ~]# _
```

```
openstack login: root
Password:
Last login: Thu Jun 25 20:09:23 from 192.168.43.189
[root@openstack ~]# ifconfig
ens3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.43.186 netmask 255.255.255.0 broadcast 192.168.43.255
        inet6 fe80::a00:27ff:fe04:dd49 prefixlen 64 scopeid 0x20<link>
        inet6 2401:4900:463f:233f:a00:27ff:fe04:dd49 prefixlen 64 scopeid 0x0<global>
    ether 00:00:27:04:dd:49 txqueuelen 1000 (Ethernet)
        RX packets 10 bytes 1613 (1.5 KiB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 13 bytes 1554 (1.5 KiB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
        RX packets 0 bytes 0 (0.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 0 bytes 0 (0.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@openstack ~]# systemctl status NetworkManager
● NetworkManager.service - Network Manager
  Loaded: loaded (/usr/lib/systemd/system/NetworkManager.service; disabled; vendor preset: enabled)
  Active: inactive (dead)
    Docs: man:NetworkManager(8)
[root@openstack ~]# hostname
openstack
[root@openstack ~]# ping openstack
PING openstack (192.168.43.89) 56(84) bytes of data.
^C
--- openstack ping statistics ---
3 packets transmitted, 0 received, 100% packet loss, time 2028ms

[root@openstack ~]# vi /etc/hosts
```

```
127.0.0.1    localhost localhost.localdomain localhost4 localhost4.localdomain4
::1          localhost localhost.localdomain localhost6 localhost6.localdomain6
192.168.43.186  openstack
```

```
"/etc/hosts" 4L, 185C written
[root@openstack ~]# ping openstack
PING openstack (192.168.43.186) 56(84) bytes of data.
64 bytes from openstack (192.168.43.186): icmp_seq=1 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=2 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=3 ttl=64 time=0.038 ms
^C
--- openstack ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2004ms
rtt min/avg/max/mdev = 0.036/0.036/0.038/0.007 ms
[root@openstack ~]# _
```

```
"/etc/hosts" 4L, 185C written
[root@openstack ~]# ping openstack
PING openstack (192.168.43.186) 56(84) bytes of data.
64 bytes from openstack (192.168.43.186): icmp_seq=1 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=2 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=3 ttl=64 time=0.038 ms
^C
--- openstack ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2004ms
rtt min/avg/max/mdev = 0.036/0.036/0.038/0.007 ms
[root@openstack ~]# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=114 time=94.3 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=114 time=82.9 ms
^C
--- 8.8.8.8 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1010ms
rtt min/avg/max/mdev = 82.965/88.674/94.384/5.717 ms
[root@openstack ~]# _
```

```
"/etc/hosts" 4L, 185C written
[root@openstack ~]# ping openstack
PING openstack (192.168.43.186) 56(84) bytes of data.
64 bytes from openstack (192.168.43.186): icmp_seq=1 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=2 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=3 ttl=64 time=0.038 ms
^C
--- openstack ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2004ms
rtt min/avg/max/mdev = 0.036/0.036/0.038/0.007 ms
[root@openstack ~]# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=114 time=94.3 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=114 time=82.9 ms
^C
--- 8.8.8.8 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1010ms
rtt min/avg/max/mdev = 82.965/88.674/94.384/5.717 ms
[root@openstack ~]# packstack --gen-answer-file=a.txt
```

```
"/etc/hosts" 4L, 185C written
[root@openstack ~]# ping openstack
PING openstack (192.168.43.186) 56(84) bytes of data.
64 bytes from openstack (192.168.43.186): icmp_seq=1 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=2 ttl=64 time=0.036 ms
64 bytes from openstack (192.168.43.186): icmp_seq=3 ttl=64 time=0.038 ms
^C
--- openstack ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2004ms
rtt min/avg/max/mdev = 0.036/0.036/0.038/0.007 ms
[root@openstack ~]# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=114 time=94.3 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=114 time=82.9 ms
^C
--- 8.8.8.8 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1010ms
rtt min/avg/max/mdev = 82.965/88.674/94.384/5.717 ms
[root@openstack ~]# packstack --gen-answer-file=a.txt
ERROR:root:Traceback (most recent call last):
  File "/usr/lib/python2.7/site-packages/packstack/installer/run_setup.py", line 991, in main
    optParser = initCmdLineParser()
  File "/usr/lib/python2.7/site-packages/packstack/installer/run_setup.py", line 840, in initCmdLineParser
    parser = OptionParser(usage=usage, version="%prog %0".format(version_info.version_string()))
  File "/usr/lib/python2.7/site-packages/pbr/version.py", line 466, in version_string
    return self.semantic_version().brief_string()
  File "/usr/lib/python2.7/site-packages/pbr/version.py", line 461, in semantic_version
    self._semantic = self._get_version_from_pkg_resources()
  File "/usr/lib/python2.7/site-packages/pbr/version.py", line 438, in _get_version_from_pkg_resources
    import pkg_resources
ImportError: No module named pkg_resources

ERROR : No module named pkg_resources
[root@openstack ~]#
```

```
Installing:
python-setuptools                                noarch      0.9.8-7.el7      dvd       397 k
Installing for dependencies:
python-backports                               x86_64      1.0-8.el7      dvd       5.8 k
python-backports-ssl_match_hostname             noarch      3.5.0.1-1.el7    dvd       13 k

Transaction Summary
=====
Install 1 Package (+2 Dependent packages)

Total download size: 415 k
Installed size: 2.0 M
Is this ok [y/d/N]: y
Downloading packages:

Total                                         4.7 MB/s | 415 kB  00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : python-backports-1.0-8.el7.x86_64                           1/3
  Installing : python-backports-ssl_match_hostname-3.5.0.1-1.el7.noarch          2/3
  Installing : python-setuptools-0.9.8-7.el7.noarch                         3/3
  Verifying   : python-setuptools-0.9.8-7.el7.noarch                         1/3
  Verifying   : python-backports-ssl_match_hostname-3.5.0.1-1.el7.noarch          2/3
  Verifying   : python-backports-1.0-8.el7.x86_64                           3/3

Installed:
  python-setuptools.noarch 0:0.9.8-7.el7

Dependency Installed:
  python-backports.x86_64 0:1.0-8.el7   python-backports-ssl_match_hostname.noarch 0:3.5.0.1-1.el7

Complete!
[root@openstack ~]# packstack --gen-answer-file=a.txt
Packstack changed given value to required value /root/.ssh/id_rsa.pub
[root@openstack ~]# _
```

```
# Path to a public key to install on servers. If a usable key has not
# been installed on the remote servers, the user is prompted for a
# password and this key is installed so the password will not be
# required again.
CONFIG_SSH_KEY=/root/.ssh/id_rsa.pub

# Default password to be used everywhere (overridden by passwords set
# for individual services or users).
CONFIG_DEFAULT_PASSWORD=

# The amount of service workers/threads to use for each service.
# Useful to tweak when you have memory constraints. Defaults to the
# amount of cores on the system.
CONFIG_SERVICE_WORKERS=%{::processorcount}

# Specify 'y' to install MariaDB. ['y', 'n']
CONFIG_MARIADB_INSTALL=y

# Specify 'y' to install OpenStack Image Service (glance). ['y', 'n']
CONFIG_GLANCE_INSTALL=y

# Specify 'y' to install OpenStack Block Storage (cinder). ['y', 'n']
CONFIG_CINDER_INSTALL=y

# Specify 'y' to install OpenStack Shared File System (manila). ['y',
# 'n']
CONFIG_MANILA_INSTALL=n

# Specify 'y' to install OpenStack Compute (nova). ['y', 'n']
CONFIG_NOVA_INSTALL=y

# Specify 'y' to install OpenStack Networking (neutron) ['y']
CONFIG_NEUTRON_INSTALL=y

"a.txt" 1365L, 52038C written
[root@openstack ~]# yum install vim
```

[general]

```
# Path to a public key to install on servers. If a usable key has not
# been installed on the remote servers, the user is prompted for a
# password and this key is installed so the password will not be
# required again.
CONFIG_SSH_KEY=/root/.ssh/id_rsa.pub

# Default password to be used everywhere (overridden by passwords set
# for individual services or users).
CONFIG_DEFAULT_PASSWORD=

# The amount of service workers/threads to use for each service.
# Useful to tweak when you have memory constraints. Defaults to the
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# Specify 'y' to install MariaDB. ['y', 'n']
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# Specify 'y' to install OpenStack Block Storage (cinder). ['y', 'n']
CONFIG_CINDER_INSTALL=y

# Specify 'y' to install OpenStack Shared File System (manila). ['y',
# 'n']
CONFIG_MANILA_INSTALL=y

# Specify 'y' to install OpenStack Compute (nova). ['y', 'n']
CONFIG_NOVA_INSTALL=y

# Specify 'y' to install OpenStack Networking (neutron) ['y']
CONFIG_NEUTRON_INSTALL=y
```

-- INSERT --

29,24

Top

```
# Default password to be used everywhere (overridden by passwords set
# for individual services or users).
CONFIG_DEFAULT_PASSWORD=

# The amount of service workers/threads to use for each service.
# Useful to tweak when you have memory constraints. Defaults to the
# amount of cores on the system.
CONFIG_SERVICE_WORKERS=%{::processorcount}

# Specify 'y' to install MariaDB. ['y', 'n']
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# 'n']
CONFIG_MANILA_INSTALL=y

# Specify 'y' to install OpenStack Compute (nova). ['y', 'n']
CONFIG_NOVA_INSTALL=y

# Specify 'y' to install OpenStack Networking (neutron) ['y']
CONFIG_NEUTRON_INSTALL=y

# Specify 'y' to install OpenStack Dashboard (horizon). ['y', 'n']
CONFIG_HORIZON_INSTALL=y

# Specify 'y' to install OpenStack Object Storage (swift). ['y', 'n']
CONFIG_SWIFT_INSTALL=n

# Specify 'y' to install OpenStack Metering (ceilometer). Note this
# will also automatically install gnocchi service and configures it as
-- INSERT --
```

```
# The amount of service workers/threads to use for each service.  
# Useful to tweak when you have memory constraints. Defaults to the  
# amount of cores on the system.  
CONFIG_SERVICE_WORKERS=%{::processorcount}  
  
# Specify 'y' to install MariaDB. ['y', 'n']  
CONFIG_MARIADB_INSTALL=y  
  
# Specify 'y' to install OpenStack Image Service (glance). ['y', 'n']  
CONFIG_GLANCE_INSTALL=y  
  
# Specify 'y' to install OpenStack Block Storage (cinder). ['y', 'n']  
CONFIG_CINDER_INSTALL=y  
  
# Specify 'y' to install OpenStack Shared File System (manila). ['y',  
# 'n']  
CONFIG_MANILA_INSTALL=y  
  
# Specify 'y' to install OpenStack Compute (nova). ['y', 'n']  
CONFIG_NOVA_INSTALL=y  
  
# Specify 'y' to install OpenStack Networking (neutron) ['y']  
CONFIG_NEUTRON_INSTALL=y  
  
# Specify 'y' to install OpenStack Dashboard (horizon). ['y', 'n']  
CONFIG_HORIZON_INSTALL=y  
  
# Specify 'y' to install OpenStack Object Storage (swift). ['y', 'n']  
CONFIG_SWIFT_INSTALL=n  
  
# Specify 'y' to install OpenStack Metering (ceilometer). Note this  
# will also automatically install gnocchi service and configures it as  
# the metrics backend. ['y', 'n']  
CONFIG_CEILOMETER_INSTALL=n  
  
# Specify 'y' to install OpenStack Telemetry Alarming (Aodh). Note  
-- INSERT --
```

```

# Specify 'y' to install OpenStack Block Storage (cinder). ['y', 'n']
CONFIG_CINDER_INSTALL=y

# Specify 'y' to install OpenStack Shared File System (manila). ['y',
# 'n']
CONFIG_MANILA_INSTALL=y

# Specify 'y' to install OpenStack Compute (nova). ['y', 'n']
CONFIG_NOVA_INSTALL=y

# Specify 'y' to install OpenStack Networking (neutron) ['y']
CONFIG_NEUTRON_INSTALL=y

# Specify 'y' to install OpenStack Dashboard (horizon). ['y', 'n']
CONFIG_HORIZON_INSTALL=y

# Specify 'y' to install OpenStack Object Storage (swift). ['y', 'n']
CONFIG_SWIFT_INSTALL=n

# Specify 'y' to install OpenStack Metering (ceilometer). Note this
# will also automatically install gnocchi service and configures it as
# the metrics backend. ['y', 'n']
CONFIG_CEILOMETER_INSTALL=n

# Specify 'y' to install OpenStack Telemetry Alarming (Aodh). Note
#"a.txt" 1365L, 52038C written
[root@openstack ~]# free -m
      total        used         free        shared   buff/cache   available
Mem:       7982          160        7492           8          329        7552
Swap:      5119            0        5119
[root@openstack ~]# echo 3 > /proc/sys/vm/drop_caches
[root@openstack ~]# free -m
      total        used         free        shared   buff/cache   available
Mem:       7982          147        7765           8          69        7651
Swap:      5119            0        5119
[root@openstack ~]# packstack --answer-file=a.txt

```