LINUX KURIOSITY

RHEL 8 (Practical Book)

Basic Configuration

Learn in a Simple & Smart Way

1. Cockpit

a. It is an interactive server administration interface. Cockpit directly contact with the operating system from a real linux session in a browser.

b. Basic operation of cockipit are as follows:

1. shutting down or restarting the system.
2. inspecting hardware information
3. setting hostname and many more.

Practical Problem: Suppose you are working in a company and your manager ask you to restart the system from the cockpit. At this point of time cockpit will help you.

2. Date

a. date is a command which is used to display the current date and time.

Command: `date`

Practical Problem: Suppose you are working in a company and your manager ask you to display the current date and time of any specific system. At this point of time above command will help you.

3. nmcli

a. It is used to manage network connections.

b. Below command is used to display all connections.

Command: `nmcli con show`

Practical Problem: Suppose you are working in a company and your manager ask you to display all the network connections. At this point of time above command will help you.

4. yum

a. It is used to list all currently enabled repositories.

Command: yum repolist

Practical Problem: Suppose you are working in a company and your manager ask you to check the repolist whether it is enabled or not. At this point of time above command will help you.

5. Firewalld

a. With the help of systemctl we can check the status of the firewall.

Command: `systemctl status firewalld`

Practical Problem: Suppose you are working in a company and your manager ask you to check the firewall status. At this point of time above command will help you.

6. Selinux

a. It is an additional layer of system security that determines which process can access which files, directories and ports.

b. Selinux has two possible states:

1. Enabled
2. Disabled

c. Selinux has two modes :

1. Enforcing
2. Permissive

d. getenforce command is used to current selinux mode.

Command: `getenforce`

Practical Problem: Suppose you are working in a company and your manager ask you to check the selinux mode. At this point of time above command will help you.

7. kdump

a. It uses kexec to boot into a second kernel, a capture kernel which resides in a reserved part of the system memory that is inaccessible to the first kernel.

b. Installation

Command: `yum install kexec-tools`

Practical Problem: Suppose you are working in a company and your manager ask you to install kdump. At this point of time above command will help you.

8. Rear

a. It is a disater recovery and system migration utility which enables you to create complete rescue system.

b. Installation

Command: `yum install rear genisoimage syslinux`

Practical Problem: Suppose you are working in a company and your manager ask you to install rear. At this point of time above command will help you.

9. Syslog messages

a. It contain different information and messages about the operating system.

b. Syslog messages are handled by two services:

1. systemd-journald (collects messages from the kernel)
2. rsyslog service (sorts the syslog messages by type and priority).

c. /var/log/messages contain all syslog messages

Example:

Command: `cat /var/log/messages`

Practical Problem: Suppose you are working in a company and your manager ask you to check the system messages. At this point of time above command will help you.

10. SOS report

a. The SOS report collects configuration details, system information and diagnostic information from a red hat enterprise linux system.

b. Installation

Example: `yum install sos`

c. Generate an SOS report

Command: `sosreport`

Practical Problem: Suppose you are working in a company and your manager ask you to generate the sos report At this point of time above command will help you.

11. Systemctl

a. Systemctl command is used to display detailed information about a service unit that corresponds to a system service.

Example:

Command: `systemctl status name.service`

Practical Problem: Suppose you are working in a company and your manager ask you to check the service status of any specific service. At this point of time above command will help you.

12. passwd

a. It is a command which is used to set or change the password of a user.

Example

Command: `passwd user-name`

Practical Problem: Suppose you are working in a company and your manager ask you to service status of any specific service. At this point of time above command will help you.

13. chrony

a. It is an implementation of the network time protocol.

Example:

Command: `chronyc tracking`

Practical Problem: Suppose you are working in a company and your manager ask you to status of the chrony.At this point of time above command will help you.

14. ethtool

a. ethtool can be used in verifying support for hardware timestamping on a specific interface.

Example:

Command: `ethtool -T eth0`

Practical Problem: Suppose you are working in a company and your manager ask you to verify the support of the interface.At this point of time above command will help you.

15. Python 3

a. We use yum to install the python 3.

Example:

Command: `yum install python3`

Practical Problem: Suppose you are working in a company and your manager ask you to install the python3. At this point of time above command will help you.

16. Langpacks

a. It is meta packages which install extra add-on packages containing translations , dictionaries and locales for every package installed on the system.

Example:

Command: `yum list langpacks-*`

Practical Problem: Suppose you are working in a company and your manager ask you to install meta packages. At this point of time above command will help you.

17. Prefixdevname

a. It is a udev helper utility that enables you to define your own prefix used for naming of the ethernet network interface.

Syntax:

 net.ifnames.prefix=<required prefix>

Note: Add above line on the kernel command line.

Practical Problem: Suppose you are working in a company and your manager ask you to change the prefix of the network interface. At this point of time above syntax will help you.

18.Module information

a. Using yum we can get the information of any specific module.

Example:

Command: `yum module info module-name`

Practical Problem: Suppose you are working in a company and your manager ask you to get the information about any specific module. At this point of time above command will help you.

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RHEL 8 (Practical Book)

Samba Server

Learn in Simple & Smart way

1. Introduction

a. smb protocol is used to to access resources on a server, such as file shares and shared printers.

b. smb provides three types of services:

1. smbd: provides file sharing and printing services using the smb protocol.

2. nmbd: provides host name and IP resolution using the NetBIOS over Ipv4 protocol.

3. winbindd: provides an interface for the Name service switch to use AD or NT4 domain users and
groups on the local system.

2. Configuration file verification

a. We can use testparm command to verify the /etc/samba/smb.conf file.

Command: `testparm`

Practical Problem: Suppose you are working in a company and your manager ask you to verify the syntax of the samba configuration file.At this point of time above command will help you.

3. Installation

a. We can use yum command to install samba package.

Command: `yum install samba`

Practical Problem: Suppose you are working in a company and your manager ask you to install the samba package. At this point of time above command will help you.

4. Firewall Configuration

a. Open the ports ie is 139 and 445 using firewall-cmd utility.

Command: `firewall-cmd --permanent –add-port={139/tcp,445/tcp}`

b. Reload the firewall configuration to apply the changes.

Command: `firewall-cmd --reload`

Practical Problem: Suppose you are working in a company and your manager ask you to configure the firewall. At this point of time above command will help you.

5. Samba User

a.We can add user to the samba database using smbpasswd command.

Command: `smbpasswd -a user-name`

Practical Problem: Suppose you are working in a company and your manager ask you to add the user to the samba database. At this point of time above command will help you.

6. Smbcontrol

a. We can use smbcontrol command to reload the samba configuration.

Command: `smbcontrol all reload-config`

Practical Problem: Suppose you are working in a company and your manager ask you to reload the samba after applying the changes. At this point of time above command will help you.

7. User shares

a. We can use net user info command on a Samba server to display user sharing and their settings.

Example: `net usershare info -l`

Practical Problem: Suppose you are working in a company and your manager ask you to give me the output of the user sharing and their settings. At this point of time above command will help you.

8. Privileges

a. Using net rpc rights list command we can list all available privileges and their owners.

Example: `net rpc rights list -U "Domain\administrator"`

Practical Problem: Suppose you are working in a company and your manager ask you to check the privileges of all user sharing and their settings. At this point of time above command will help you.

9. Deleting a user share

a. To delete a user share use the command net usershare delete command.

Example: `net usershare delete share_name`

Practical Problem: Suppose you are working in a company and your manager ask you to delete the privileges of any specific user sharing . At this point of time above command will help you.

10. Rpcclient

a. It enables you to manually execute client-side microsoft remote procedure call (MS-RPC) functions on a local or remote SMB server.

Example: `rpcclient server_name -U "DOMAIN\administrator" -c 'netshareenum'`

Practical Problem: Suppose you are working in a company and your manager ask you to execute client-side microsoft remote procedure call (MS-RPC). At this point of time above command will help you.

RHEL 8 (Practical Book)

Database Servers

Learn in a Simple & Smart way

1. Introduction

a. Databases are organized collections of data.

2. Mariadb Installation

Command: `yum install mariadb`

Using yum we can install mariadb package.

Practical Problem: Suppose you are working in a company and your manager ask you to install mariadb package. At this point of time above command will help you.

3. Service

Command: `systemctl start mariadb.service`

Using systemctl command we can start mariadb service.

Command: `systemctl enable mariadb.service`

Practical Problem: Suppose you are working in a company and your manager ask you to start and enable mariadb service. At this point of time above command will help you.

4. Mysqldump

a. Dump all databases into the all_databases.sql file.

Command: `mysqldump --all-databases > all_databases.sql`

Practical Problem: Suppose you are working in a company and your manager ask you to take the backup of all the databases. At this point of time above command will help you.

b. Restore the data

Command: `mysql db_name < all_databases.sql`

5. Backing up mariadb data

a. There are two ways to take backup

1. logical backup : It consist of the SQL statements necessary to restore the data.This type ofbackup backup exports information and records in plain text files.

2. physical backup : consists of copies of file and directories that store the content.

6. Mariabackup tool

a. Installation

Command: `yum install mariadb-backup`

b. backup

Command: `mariabackup --backup --target-dir <backup_directory> --user <backup_users> --password <backup_passwd>`

c. It is a tool based on the percona xtrabackup technology which enables performing physical online backups of InnoDB,Aria and MyISAM tables.

Practical Problem: Suppose you are working in a company and your manager ask you to take the backup of all the databases using mariadb backup tool. At this point of time above command will help you.

7. Secure mariaDB Installation

a. We can improve security when installing mariaDB by running the mysql_secure_installation command.

Command: `mysql_secure_installation`

Practical Problem: Suppose you are working in a company and your manager ask you to install the mariadb securely. At this point of time above command will help you.

8. Repair Internal Tables

a. We can use mysql_upgrade command to check and repair internal tables.

Command: `systemctl mysql_upgrade`

Practical Problem: Suppose you are working in a company and your manager ask you to check and repair the mariadb internal tables. At this point of time above command will help you.

9. Replication

a. It is an alternative backup solution for master servers.

10. Bind Address

a. It is the address on which the server will listen

b. Possible values are

1. 0 to listen for all clients
2. 1 to listen for local clients only

LINUX KURIOSITY

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Networking

Learn in a Simple & Smart way

1. Introduction

a. IP networks are the networks that communicate through internet protocol addresses.

b. An IP network is implemented in the network and most internal networks.

c. Non-Ip networks are used to communicate through a lower layer rather than the transport layer.

Interview QA: Suppose you are going for interview and interviewer ask you what is the difference between IP and Non IP networks. At this point of time above definition will help you.

2. Netconsole

a. The netconsole kernel module enables logging of kernel messages over the network to another computer.

b. It allows kernel debugging in the cases where disk logging fails.

Interview QA: Suppose you are going for interview and interviewer ask you what is the use of the netconsole. At this point of time above definition will help you.

3. Sysctl

a. To display a list of all available sysctl parameters.

Command: `sysctl -a`

b. We can use sysctl utility to adjust network configuration on a running system and directly affect the networking performance.

Practical Problem: Suppose you are working in a company and your manager ask you to share all the parameters of the sysctl. At this point of time above command will help you.

4. ncat

a. It is a reliable back end tool that provides network connectivity to other applications and users.

b. Installation

Command: `yum install nmap-ncat`

Practical Problem: Suppose you are working in a company and your manager ask you to install nmap-ncat. At this point of time above command will help you.

5. Port Scanning

a. We can use -z option along with ncat command to view which ports are open.

Command: `ncat -z 192.168.10.11 80-90`

Practical Problem: Suppose you are working in a company and your manager ask you to check the open ports. At this point of time above command will help you.

6. Network Manager

a. It is a dynamic network control and configuration daemon to keep network devices and connections up and active when they are available.

Installation :

Command: `yum install NetworkManager`

Practical Problem: Suppose you are working in a company and your manager ask you to install networkmanager. At this point of time above command will help you.

7. Status of Network Manager

a. Following command is used to check the status of the networkmanager.

Command: `systemctl status NetworkManager`

Practical Problem: Suppose you are working in a company and your manager ask you to check the status of the networkmanager. At this point of time above command will help you.

8. Nmcli

a. The nmcli devices commmand lists the available network devices in the system.

Command: `nmcli device`

b. It is the command-line utility to configure networking through networkmanager.It is used to create, display, edit, delete, activate and deactivate connections.

Practical Problem: Suppose you are working in a company and your manager ask you to check the list of the network devices. At this point of time above command will help you.

9. IPVLAN

a. It is a driver for a virtual network device that can be used in container environment to access the host network.

Interview QA: Suppose you are going for interview and interviewer ask you what is the use of theIPVLAN. At this point of time above definition will help you.

10. IPVLAN modes

a. L2 mode : virtual devices recieve and respond to address resolution protocol requests.

b. L3 mode: virtual devices process only L3 traffic and above.

c. L3S mode: L3S mode behaves in a similar way to L3 mode but provides greater control of the network.

Interview QA: Suppose you are going for interview and interviewer ask you what is the three modes of IPVLAN. At this point of time above definition will help you.

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Firewall

1. Introduction

a. A firewall is a way to protect machines from any unwanted traffic from outside.

b. Firewalld is a firewall service daemon that provides a dynamic customizable host-based firewall with a D-bus interface.

Interview QA: Suppose you are going for an interview and interviewer ask you what is firewalld ?At this point of time above definition will help you.

2. Add the Service

Example:

Command: `firewall-cmd -add-service=ssh --timeout 15m`

Above command add the ssh service for 15 minutes.

Practical Problem: Suppose you are working in a company and your manager ask you to add the ssh service through the firewall and set the timeout 15 min. At this point of time above example will help you.

3. Firewall-config GUI

a. Installation

Command: `yum install firewall-config`

Above command will install the firewall-config GUI configuration.

Practical Problem: Suppose you are working in a company and your manager ask you to install the firewall-config GUI. At this point of time above example will help you.

4. Firewall status

Command: `systemctl status firewalld`

Above command will show you the status of the firewall.

Practical Problem: Suppose you are working in a company and your manager ask you to check the status of the firewall. At this point of time above example will help you.

5. Controlling traffic

Command: `firewall-cmd --panic-on`

In an critical situation such as a system attack, it is possible to disable all network traffic and cut off
the attacker.

Practical Problem: Suppose you are working in a company and your manager ask you to disable the traffic. At this point of time above example will help you.

6. Opening a port

a. First list all the allowed ports

Command: `firewall-cmd --list-ports`

b. Add a port to the allowed ports to open it for incoming traffic

Command: `firewall-cmd --add-port=port-number/port-type`

c. Make the new settings persistent

Command: `firewall-cmd –runtime-to-permanent`

Note: Port types are either tcp,udp,sctp or dccp.

Practical Problem: Suppose you are working in a company and your manager ask you to open the port for incoming traffic. At this point of time above example will help you.

7. Closing a port

a. First list all allowed ports

Command: `firewall-cmd --list-ports`

b. Remove the port from the allowed ports to close it for the incoming traffic

Command: `firewall-cmd –remove-port=port-number/port-type`

c. Make the new settings persistent

Command: `firewall-cmd –runtime-to-permanent`

Practical Problem: Suppose you are working in a company and your manager ask you to close the port for incoming traffic. At this point of time above example will help you.

8. Listing zones

a. Use following command to see which zones are available on your system.

Command: `firewall-cmd –get-zones`

b. Use following command to see detailed information for all zones.

Command: `firewall-cmd –list-all-zones`

Practical Problem: Suppose you are working in a company and your manager ask you to share the information of all the zones. At this point of time above example will help you.

9. Redirect the port

a. Redirect the port 80 to port 88 for tcp traffic

Command: firewall-cmd -add-forward-port=port=80:proto=tcp:toport=88

b. Make the new settings persistent.

Command: `firewall-cmd --runtime-to-permanent`

c. Check that the port is redirected or not

Command: `firewall-cmd --list-all`

Practical Problem: Suppose you are working in a company and your manager ask you to redirect the port . At this point of time above example will help you.

10. Listing ICMP requests

a. To list all available ICMP types

Command: `firewall-cmd --get-icmptypes`

b. The firewall-cmd command controls the ICMP requests manipulation.

Practical Problem: Suppose you are working in a company and your manager ask you to list all available ICMP types. At this point of time above example will help you.

LINUX KURIOSITY

RHEL 8 (Practical Book)

Kernel

Learn in a Simple & Smart way

1. Introduction

a. A kernel is a core part of a Linux operating system which manages the system resources and provides interface between hardware and software applications.

2. Updating kernel

Command: `yum update kernel`

Above command updates the kernel along with all dependencies to the latest available version.

Reboot the system for the changes to take effect.

Practical Problem: Suppose you are working in a company and your manager ask you to update the kernel.At this point of time above example will help you.

3. Installing Kernel

Command: `yum install kernel-{version}`

To install a specific kernel version use a above command.

Practical Problem: Suppose you are working in a company and your manager ask you to install the specific kernel.At this point of time above example will help you.

4. Kernel line parameters

a. A boot entry is a collection of options forming together a configuration file, which is usually tied
to a particular kernel version.

b. grubby is a utility for manipulating bootloader-specific configuration files.

Command: `grub2-editenv - set kernelopts="rd.debug=1 rhgb"`

Above command sets a new value to the globalvariable kernelopts by replacing the old value. As a result the kernel command line parameter debug is set for all the boot entries on your system.

Reboot the system for the changes to take effect.

5. Sysctl

a. Kernel tunables are kernel parameters which are addressed by the sysctl command through the /proc/sys/ interface.

b. To list all kernel parameters use following command:

Command: `sysctl -a`

Practical Problem: Suppose you are working in a company and your manager ask you to list all the kernel parameters.At this point of time above example will help you.

6. kdump

a. It is a kernel crash dumping mechanism that enables you to save the contents of the system's memory for later analysis.

b. Installation

Command: `yum install kexec-tools`

c. Verify the installation

Command: `rpm -q kexec-tools`

Practical Problem: Suppose you are working in a company and your manager ask you to install the kdump.At this point of time above example will help you.

7. Analyzing a core dump

a. To determine the cause of the system crash you can use the crash utility, which provides an interactive prompt very similar to the GNU Debugger.

b. Installtion

Command: `yum install crash`

Command: `yum install kernel-debuginfo`

Practical Problem: Suppose you are working in a company and your manager ask you to install crash utility.At this point of time above example will help you.

8. Message buffer

a. To display the kernel message buffer type the log command at the interactive prompt.

Command: `log`

Practical Problem: Suppose you are working in a company and your manager ask you to check the kernel message buffer.At this point of time above example will help you.

9. Kernel Stack trace

a. To display the kernel stack trace use the bt command.

Command: `bt`

10. Virtual memory information

a. To display basic virtual memory information, type the vm command at the interactive prompt.

Command: `vm`

LINUX KURIOSITY

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File Systems

Learn in a Simple & Smart way

1. Creating an XFS File System

Command: `mkfs.xfs block-device`

Above command will create file-system of type xfs.Also we can use -f option to overwrite the file system.

Practical Problem: Suppose you are working in a company and your manager ask you to create the XFS file system. At this point of time above example will help you.

2. Register the new device

Command: `udevadm settle`

Above command wait for the system to register the new device node.

Practical Problem: Suppose you are working in a company and your manager ask you to register the new device. At this point of time above example will help you.

3. Backing up an XFS file system

a. The xfsdump utility enables you to write multiple backups to the same tape. A backup can span multiple tape.

Example:

Command: `xfsdump -l 0 -f /backup-files/boot.xfsdump /boot`

Above command back up the content of XFS file systems mounted on the /boot/ and save them as files in the /backup-files/ directory.

Practical Problem: Suppose you are working in a company and your manager ask you to backup the XFS file system. At this point of time above example will help you.

4. Restoring an xfs file systems

a. The xfsrestore utility restores file systems from backups produced by xfsdump.

Command: `xfsrestore -f /backup-files/boot.xfsdump /mnt/boot/`

Practical Problem: Suppose you are working in a company and your manager ask you to restore the XFS file system. At this point of time above example will help you.

5. Repairing an XFS file system

a. The xfs_repair utility is highly scalable and it is designed to repair even very large file system with many inodes efficiently.

Command: `xfs_repair block-device`
Practical Problem: Suppose you are working in a company and your manager ask you to repair the XFS file system. At this point of time above example will help you.

6. Increasing the size of an XFS file system

a. xfs_growfs is a utility which is used to increase the size.

Command: `xfs_growfs file-system -D new-size`

b. xfs_info is a utility which is used to find out the block size in kb of a given XFS file system.

Command: `xfs_info block-device`

Practical Problem: Suppose you are working in a company and your manager ask you to grow the
size of the XFS file system. At this point of time above example will help you.

7. Viewing the partition table

a. First start the interactive parted shell

Command: `parted block-device`

b. Print the partition table

Command: `(parted) print`

Practical Problem: Suppose you are working in a company and your manager ask you to view the partition table. At this point of time above example will help you.

8. Create the new partition table

Example:

`(parted) mklabel table-type`

table-type can be msdos or gpt.

Practical Problem: Suppose you are working in a company and your manager ask you to create the new partition table with gpt type. At this point of time above example will help you.

9.create the new partition

Syntax: `(parted) mkpart part-type name fs-type start end`

part-type can be primary, logical or extended.

fs-type can be xfs , ext2, ext3 ,ext4,fat16,fat32,hfs,hfs+,linux-swap,ntfs,or reiserfs.

Example: `(parted) mkpart primary 1024Mib 2048Mib`

Practical Problem: Suppose you are working in a company and your manager ask you to create the create new partition. At this point of time above example will help you.

10. Removing a partition

a. First determine the minor number using below command:

Command: `(parted) print`

b. Remove the partition

Command: `(parted) rm minor-number`

Practical Problem: Suppose you are working in a company and your manager ask you to remove a partition. At this point of time above example will help you.

11. Resizing the partition

a. First determine the minor using below command:

Command: `(parted) print`

b. Resize the partition

Command: `(parted) resizepart 1 2GiB`

Practical Problem: Suppose you are working in a company and your manager ask you to resize the partition. At this point of time above example will help you.

12. lsblk

a. It is used to determine the UUID and label attributes

Command: `lsblk --fs storage-device`

Practical Problem: Suppose you are working in a company and your manager ask you to determine the UUID and label attributes of the storage device. At this point of time above example will help you.

13. xfs_admin

a. It is used to change the UUID or label attributes of an XFS file systems

Syntax: `xfs_admin -U new-uuid -L new-label storage-device`

Practical Problem: Suppose you are working in a company and your manager ask you to change the UUID or label attributes of an XFS file system. At this point of time above example will help you.

14. tune2fs

a. It is used change the UUID or label attributes of an ext4,ext3 or ext2 file system.

Syntax: `tune2fs -U new-uuid -L new-label storage-device`

Practical Problem: Suppose you are working in a company and your manager ask you to change the UUID or label attributes of an ext4, ext3 or ext2 file system. At this point of time above example will help you.

15. swaplabel

a. It is used to change the UUID or label attributes of a swap volume.

Syntax: `swaplabel --uuid new-uuid --label new-label swap-device`

Practical Problem: Suppose you are working in a company and your manager ask you to change the UUID or label attributes of an swaplabel file system. At this point of time above example will help you.

16. findmnt

a. It is used to list all mounted file systems.

Command: `findmnt`

Practical Problem: Suppose you are working in a company and your manager ask you to list all mounted file systems. At this point of time above example will help you.

17. Moving a mount point

a. Following command is used to change the directory in which a file system is mounted

Command: `mount --move old-directory new-directory`

Practical Problem: Suppose you are working in a company and your manager ask you to move the mount point. At this point of time above example will help you.

18. Fuser

a. It is used to determine which processes are accessing the file-system.

Command: `fuser --mount /device-name`

Practical Problem: Suppose you are working in a company and your manager ask you to determine which processes are accessing the file-system.At this point of time above example will help you.

19. autofs

a. The autofs service can mount and unmount file systems automatically, therefore saving system resources.

b. It can be used to mount file systems such as NFS, AFS, SMBFS,CIFS and local file systems.

c. Installation

Command: `yum install autofs`

Command: `systemctl enable --now autofs`

Practical Problem: Suppose you are working in a company and your manager ask you to install and enable the autofs. At this point of time above example will help you.

20. Stratis file systems

a. It is a local storage-management solution for linux.

b. Installation

Command: `yum install stratisd stratis-cli`

c. Enable the stratisd service

Command: `systemctl enable --now stratisd`

Practical Problem: Suppose you are working in a company and your manager ask you to install and enable the stratis service. At this point of time above example will help you.

21. Creating a stratis pool

a. First erase file system, partition table and raid signatures.

Command: `wipefs --all block-device`

b. Create a stratis pool on the block device

Command: `stratis pool create my-pool block-device`

c. Verify all the pools on your systems

Command: `stratis pool list`

Practical Problem: Suppose you are working in a company and your manager ask you to create a stratis pool.At this point of time above example will help you.

22. Creating a stratis file system

a. Command: `stratis fs create my-pool my-fs`

b. list file systems within the pool

Command: `stratis fs list my-pool`

Practical Problem: Suppose you are working in a company and your manager ask you to create a stratis file system. At this point of time above example will help you.

23. Adding block devices to a stratis pool

a. To add one or more block devices to the pool use below command:

Command: `stratis pool add-data my-pool device-1 device-2 device-n`

Practical Problem: Suppose you are working in a company and your manager ask you to add block devices to the pool. At this point of time above example will help you.

24. Displaying information about stratis volumes

a. To display information about all block devices used for stratis on your system.

Command: `stratis blockdev`

b. To display information about all stratis pools on your system

Command: `stratis pool`

c. To display information about all stratis file systems on your system.

Command: `stratis filesystem`

Practical Problem: Suppose you are working in a company and your manager ask you to display information about stratis volumes. At this point of time above example will help you.

25. Removing stratis file systems

a. First unmount the file system

Command: `umount /stratis/my-pool/my-fs`

b. Destroy the file system

Command: `stratis filesystem destroy my-pool my-fs`

c. verify

Command: `stratis filesystem list my-pool`

Practical Problem: Suppose you are working in a company and your manager ask you to remove stratis file system. At this point of time above example will help you.

26. Removing a stratis pool

a. list file systems on the pool

Command: `stratis filesystem list my-pool`

b. Unmount all file systems on the pool.

Command: `umount /stratis/my-pool/my-fs-1`

c. Destroy the file systems

Command: `stratis filesystems destroy my-pool my-fs-1`

d. Destroy the pool

Command: `stratis pool destroy my-pool`

e. Verify that the pool no longer exists.

Command: `stratis pool list`

Practical Problem: Suppose you are working in a company and your manager ask you to remove stratis pool. At this point of time above example will help you.

LINUX KURIOSITY

RHEL 8 (Practical Book)

Cluster

Learn in a Simple & Smart way

1. Introduction

a. A cluster is two or more computers (called nodes or members) that work together to perform a task.

Interview QA : Suppose you are going for a interview and interviewer ask you what is cluster ? At this point of time above definition will help you.

2. Pacemaker

a. It is a cluster resource manager and achieve maximum availability for your cluster services.

b. Four basic components of the pacemaker architecture components are as follows:

1. Cluster Information Base: uses XML internally to distribute and synchronize current configuration and status information from the designated coordinator.

2. Cluster Resource Management Daemon (CRMd): Each cluster node also includes a local resource manager daemon (LRMd) that acts as an interface between CRMd and resources.

3. STONITH: It is configured in CIB and can be monitored as a normal cluster resource.

4. Corosync: provides messaging capabilities for applications that coordinate or operate across multiple members of the cluster.

Interview QA : Suppose you are going for a interview and interviewer ask you what is pacemaker ? At this point of time above definition will help you.

3. Pacemaker configuration and management tools

a. Pacemaker features two configuration tools for cluster deployment, monitoring and management.

1. pcs: controls and configures pacemaker and the corosync heartbeat daemon.

2. pcsd Web UI: It is a graphical user interface to create and configure pacemaker/ corosync clusters.

Interview QA : Suppose you are going for a interview and interviewer ask you what are the two configuration tools for cluster deployment , monitoring and management ? At this point of time above definition will help you.

4. Fence device

a. It is an external device that can be used by the cluster to restrict access to shared resources by an errant node, or to issue a hard reboot on the cluster node.

Interview QA : Suppose you are going for a interview and interviewer ask you what is fence device ? At this point of time above definition will help you.

5. Quorum

a. It is used to prevent data corruption and loss.

Interview QA : Suppose you are going for a interview and interviewer ask you what is the use of the quorum ? At this point of time above definition will help you.

6. Pacemaker Installation

a. Command: yum install pcs pacemaker fence-agents-all

Above command will install pcs , pacemaker and fence agents

b. Command: systemctl start pcsd.service
   Command: systemctl enable pcsd.service

Above command will start and enable the pcsd service.

Interview QA : Suppose you are going for a interview and interviewer ask you how will you install pacemaker ? At this point of time above definition will help you.

7. Setting and authenticate password to the ha cluster.

a. Command: passwd hacluster

Above command set the password to the hacluster.

b. Command: pcs host auth z1.example.com

Above command will verify whether password is set or not.

Interview QA : Suppose you are going for a interview and interviewer ask you How to set and authenticate password to the ha cluster ? At this point of time above command will help you.

8. Cluster creation and cluster verification

Command: pcs cluster setup my_cluster --start z1.example.com

Above command will create a cluster with one member.

Command: pcs cluster status

Interview QA : Suppose you are going for a interview and interviewer ask you how to create cluster and do the verification ? At this point of time above command will help you.

9. Restore cluster services

Command: pcs cluster unstandby z1.example.com

Above command restore cluster services to the first node, take the node out of standby node.

Interview QA : Suppose you are going for a interview and interviewer ask you how to restore the cluster services ? At this point of time above command will help you.

10. Stopping cluster services

Command: pcs cluster stop --all

Above command stop the cluster services on both nodes.

Interview QA : Suppose you are going for a interview and interviewer ask you how to stop cluster services on both nodes ? At this point of time above command will help you.

LINUX KURIOSITY

RHEL 8 (Practical Book)

VDO (Virtual Data Optimizer)

Learn in a Simple & Smart way

1. Introduction

a. Virtual data optimizer provides inline data reduction for linux in the form of deduplication,compression and thin provisioning.

Interview QA: Suppose you are going for an interview and your manager ask you what is Virtual data optimizer ? At this point of time above definition will help you.

2. Installation

a. Command: `yum install vdo kmod-kvdo`

Above command will install virtual data optimizer.

Interview QA: Suppose you are going for an interview and your manager ask you how to install Virtual data optimizer ? At this point of time above command will help you.

3. Creating VDO for container storage

a. Command: `vdo create \`

```
        --name=vdo1 \
        --device=device-name \
        --vdoLogicalSize=10T
```

Above command will create virtual data optimizer for container storage.

Interview QA: Suppose you are going for an interview and your manager ask you how to create Virtual data optimizer for container storage ? At this point of time above command will help you.

4. Create a file system on top of the VDO volume

a. Command: `mkfs.xfs -K /dev/mapper/vdo-name`

Interview QA: Suppose you are going for an interview and your manager ask you how to create a file system on top of the VDO volume ? At this point of time above command will help you.

5. Mount the file system

a. First create the directory

Command: `mkdir  -m 1777 /mnt/vdo-name`

b. mount the file system

Command: `mount /dev/mapper/vdo-name  /mnt/vdo-name`

Interview QA: Suppose you are going for an interview and your manager ask you how to mount the file system ? At this point of time above command will help you.

6. vdostats

a. It is used to get information about a VDO volume

Command: `vdostats --human-readable`

Interview QA: Suppose you are going for an interview and your manager ask you how to get the information about a VDO volume ? At this point of time above command will help you.

LINUX KURIOSITY

RHEL 8 (Practical Book)

Linux Containers

Learn in a simple & smart way

1. Introduction

a. Linux containers have emerged as a key open source application packaging and delivery technology, combining lightweight application isolation with the flexibility of image-based deployment methods.

b. Podman: It is used to manage pods and container images.

c. buildah: It is used to building , pushing and signing container images.

d. skopeo: It is used to copying , inspecting, deleting and signing images.

e. runc: It is used to provide container run and build features to podman and buildah.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the podman, buildah, skopeo and runc ? At this point of time above definition will help you.

2. Containers Installation

Command: `yum module install -y container-tools`

Above command pulls in the full set of container software packages.

Interview QA : Suppose you are going for the interview and interviewer ask you how to install container-tools ? At this point of time above command will help you.

3. podman-docker

a. It is a package which is used to links podman man pages to the docker command.

Command: `yum install -y podman-docker`

Interview QA : Suppose you are going for the interview and interviewer ask you how to install podman-docker ? At this point of time above command will help you.

4. Listing images

a. Using podman images we can see which images have been pulled to your local system.

Command: `podman images`

5. Inspect Images

a. podman inspect command displays basic information about what an images does.

Command: `podman inspect image-name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to inspect image using podman ? At this point of time above command will help you.

6. Mount a container

a. Using the podman command, mount an active container to further investigate its contents.

Command: `podman ps`

Command: `podman mount container-id-image-name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to mount the active container using podman? At this point of time above command will help you.

7. skopeo inspect

a. We can inspect a container image before you pull it to your system.We can display information about an image that resides in a remote container registry.

Command: `skopeo inspect image-name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to inspect the image ? At this point of time above command will help you.

8. Tagging Images

a. We can add names to images to make it more intuitive to understand what they contain.

Command: `podman tag container-id name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to tag the container ? At this point of time above command will help you.

9. Removing images

a. To remove images you no longer need use the podman rmi command with the image ID.

Command: `podman rmi rhel-init`

Interview QA : Suppose you are going for the interview and interviewer ask you how to remove the images ? At this point of time above command will help you.

10. starting and stopping the containers

a. Command: `podman start container-id`

Above command will start the container.

b. Command: `podman stop container-id`

Above command will stop the container.

Interview QA : Suppose you are going for the interview and interviewer ask you how to start and stop the container using podman ? At this point of time above command will help you.

LINUX KURIOSITY

Ansible for Network Automation
(Interview QA Book)

Learn in a Simple & Smart way

1. Control node

a. We can run commands and playbooks by invoking /usr/bin/ansible or /usr/bin/ansible-playbooks from any control node.

Note: We cannot use a window machine as a control node.

Interview QA: Suppose you are going for the interview and interviewer ask you what is control node in ansible ? At this point of time above definition will help you.

2. Managed node

a. The network devices or servers we manage with ansible.

b. managed nodes are also called hosts.

c. Ansible is not installed on managed nodes.

Interview QA: Suppose you are going for the interview and interviewer ask you what is managed node in ansible ? At this point of time above definition will help you.

3. Inventory

a. A list of managed nodes.

b. Also known as hostfile.

c. We can specify information like IP address for each maanged node.

Interview QA: Suppose you are going for the interview and interviewer ask you what is inventory in ansible ? At this point of time above definition will help you.

4. Modules

a. Each module has a particular use.

b. We can invoke a single module with a task or invoke several different modules in a playbook.

Interview QA: Suppose you are going for the interview and interviewer ask you what is module in ansible ? At this point of time above definition will help you.

5. Tasks

a. It is a unit of action.

Interview QA: Suppose you are going for the interview and interviewer ask you what is task in ansible ? At this point of time above definition will help you.

6. Playbooks

a. It is ordered list of tasks.

b. It can include variables as well as tasks.

c. It is written in YAML

Interview QA: Suppose you are going for the interview and interviewer ask you what is playbooks in ansible ? At this point of time above definition will help you.

7. Network modules

a. It use the control node as a destination for backup files.

b. It write backup files on the control node, usually in the backup directory under the playbook root directory.

Interview QA: Suppose you are going for the interview and interviewer ask you what is network modules in ansible ? At this point of time above definition will help you.

8. Multiple communication protocols

a. The communication protocol selected for each module network module depends on the platform

and purpose of the module.

Interview QA: Suppose you are going for the interview and interviewer ask you what are the two factors on which communication protocol depends in ansible? At this point of time above definition will help you.

9. Network platform

a A network platform is a set of network devices with a common operating system that can be managed by a collection of modules.

Interview QA: Suppose you are going for the interview and interviewer ask you what is control node in ansible ? At this point of time above definition will help you.

10. Privilege escalation

a. Several network platforms support privilege escalation where certain tasks must be done by a privileged user.

b. On network devices this is called enable mode.

11. Ansible version verification

a. Command: `ansible –version`

Interview QA: Suppose you are going for the interview and interviewer ask you how to verify the ansible version in ansible ? At this point of time above command will help you.

12. Establish a manual connection to a managed node

a. Command: ssh user@vo.example.net

b. Command: show config

c. Command: exit

Interview QA: Suppose you are going for the interview and interviewer ask you how to establish a manual connection to a managed node in ansible ? At this point of time above command will help you.

13. Network Ansible command

a Syntax: `ansible all -i device-name -c network_cli -u user-name -k -m ansible module`

-i device name
-c connection method
-u user-name
-k prompt for password
-m ansible module

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of -k option in ansible network command ? At this point of time above syntax will help you.

14. Basic Inventory

a. First group servers and network devices by their what (application, stack or microservice), where (datacenter or region) and when (development stage).

1. what: web
2. where: floor
3. when: staging

b. Avoid spaces, hyphens and preceding numbers in your group names.

c. group names are case sensitive.

Interview QA: Suppose you are going for the interview and interviewer ask you how to prepare the basic inventory in ansible ? At this point of time above definition will help you.

15. Ansible vault

a. It is a command which provides encryption for files and or individual variables like passwords.

Interview QA: Suppose you are going for the interview and interviewer ask you what is ansible vault ? At this point of time above definition will help you.

16. Roles

a. Roles are sets of ansible defaults, files, tasks, templates, variables and other ansible components that work together.

17. Strategy Plugin

a. It tells ansible how to order multiple tasks on multiple hosts.

b. It is set at the playbook level.

c. Free strategy uses available forks more efficiently.

18. Show running

a. It is a command which is most resource-intensive command to execute on a network device, because of the way queries are handled by the network OS.

19. Proxy command

a. Network modules support the use of a proxy or jump host with the proxy command parameter.

20. Fork

a. Every time ansible runs a task, it forks its own process.

b. The --forks parameter defines the number of concurrent tasks.

21. Inventory File

a. An inventory file is an INI-like configuration file that defines the mapping of hosts into groups.

22. Jump hosts

a. If the ansible controller doesn't have a direct route to the remote device and you need to use a

jump host.

23. Ansible's Network fact modules

a. It gather information from the system and store the results in facts prefixed with ansible_net_.

24. Ansible hostvars

a. It allows you to access variables from a named host.

25. Conditional statements

a. There are seven conditional statements

1. eq (Equal)
2. neq (Not equal)
3. gt (greater than)
4. ge (greater than or equal)
5. lt (less than)
6. le (less than or equal)
7. contains

26. Wait_for argument

a. It can be used to evaluate the results before running control to the ansible playbook.

Note:

a. Ssh does not support providing passwords via environment variables.

b. Ansible supports ssh-agent to manage your SSH keys.

LINUX KURIOSITY

Ansible for Vmware

Interview QA

Learn in a Simple & Smart way

1. Introduction

a. Ansible Vmware modules are written on top of pyVmomi.

b. pyVomi is the python SDK for the vsphere API that allows user to manage ESX, ESXi and Vcenter Infrastructure.

c. Installation

Command: pip install pyvomi

Interview QA: Suppose you are going for the interview and interviewer ask you what is pyvomi and how to install ? At this point of time above definition will help you.

2. Validate_certs parameter

a. It is used to disable validation of the certificates by using the validate_certs parameter.

b. To do this you need to set validate_certs=False in your playbook.

Interview QA: Suppose you are going for the interview and interviewer ask you what is Validate_certs parameter ? At this point of time above definition will help you.

3. Wait for ip address parameter

a. It will increase the clone time as it will wait until virtual machine boots into the OS and an IP address has been assigned to the given NIC.

Interview QA: Suppose you are going for the interview and interviewer ask you what is wait for ip address parameter ? At this point of time above definition will help you.

4. Renaming Virtual machine

a. For renaming virtual machine, vmware_guest modules uses Vmware UUID which is unique across vcenter environment.

Interview QA: Suppose you are going for the interview and interviewer ask you how to rename virtual machine ? At this point of time above definition will help you.

5. Vmware guests facts

a. It is a module to find virtual machine and get information about VMWare UUID of the virtual machine.

Note: The removal Vmware virtual machine using Vmware_guest module is destructive operation. And cannot be reverted.

Interview QA: Suppose you are going for the interview and interviewer ask you what is vmware guests facts ? At this point of time above definition will help you.

LINUX KURIOSITY

Ansible Galaxy (Practical Book)

Learn in a simple & smart way

1. Introduction

a. Ansible Galaxy refers to the galaxy website where users can share roles, and to a command line tool for installing, creating and managing roles.

Interview QA: Suppose you are going for the interview and interviewer ask you what is ansible galaxy ? At this point of time above definition will help you.

2. Roles

a. Installation

Command : `ansible-galaxy install username.role_name`

The ansible-galaxy command comes bundled with ansible and we can use it to install roles from galaxy or directly from a git based SCM.

Interview QA: Suppose you are going for the interview and interviewer ask you how to install specific roles ? At this point of time above command will help you.

3. Roles path

Command: `ansible-galaxy install --roles-path . Lina.apache`

The Above provides an example of using -roles-path to install the role into the current working directory.

Interview QA: Suppose you are going for the interview and interviewer ask you how to change the roles path ? At this point of time above command will help you.

4. Mutiple roles

a. We can use below command to install roles in requirement.yml.

Command: `ansible-galaxy install -r requirements.yml`

Interview QA: Suppose you are going for the interview and interviewer ask you how to install multiple roles from the file ? At this point of time above command will help you.

5. Dependencies

a. Roles can also be dependent on other roles, and when you install a role that has dependencies, those dependencies will automatically be installed.

Interview QA: Suppose you are going for the interview and interviewer ask you what is dependencies ? At this point of time above definition will help you.

6. Create roles

a. Init command is used to initialize the base structure of a new role, saving time on creating the various directories and main.yml files a role requires.

Command: `ansible-galaxy init role_name`

Interview QA: Suppose you are going for the interview and interviewer ask you what is init command ? At this point of time above command will help you.

7. Force option

a. Suppose if a directory matching the name of the role already exists in the current working directory, the init command will result in an error.To ignore the error we use the –force option.

8. Search for roles

a. Search the galaxy database by tags, platforms, author and multiple keywords.

Command: `ansible-galaxy search elasticsearch --author lina`

Interview QA: Suppose you are going for the interview and interviewer ask you how to search for roles by author keywords ? At this point of time above definition will help you.

9. Role information

a. We can use the info command to view more detail about a specific role.

Command: `ansible-galaxy info username.role_name`

Interview QA: Suppose you are going for the interview and interviewer ask you how to get the information about the specific role ? At this point of time above command will help you.

10. List installed roles

a. Use list to show the name and version of each role installed in the roles_path.

Command: `ansible-galaxy list`

Interview QA: Suppose you are going for the interview and interviewer ask you how to list installed roles ? At this point of time above command will help you.

11. Remove an installed role

a. Use remove to delete a role from roles_path

Command: `ansible-galaxy remove username.role_name`

Interview QA: Suppose you are going for the interview and interviewer ask you how to remove an installed role ? At this point of time above definition will help you.

12. Authenticate with galaxy

Command: `ansible-galaxy login`

The above command authenticate with the galaxy website using a github username and password.

Interview QA: Suppose you are going for the interview and interviewer ask you how to authenticate with galaxy ? At this point of time above command will help you.

13. Import a role.

a. The import command requires that you first authenticate using the login command.Once authenticated you can import any github repository that you own or have been granted access.

Command: `ansible-galaxy import github_user github_repo`

Interview QA: Suppose you are going for the interview and interviewer ask you how to import a role ? At this point of time above command will help you.

14. Branch

a. We can use the -branch option to import a specific branch.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the name of option using which we can import the specific branch ? At this point of time above definition will help you.

15. Role name

a. We can rename the role name by using -role-name option.

Interview QA: Suppose you are going for the interview and interviewer ask you how to change the role name ? At this point of time above option will help you.

16. Delete a role

a. The delete command requires that you first authenticate using the login command.

Command: `ansible-galaxy delete github_user github_repo`

Interview QA: Suppose you are going for the interview and interviewer ask you how to delete a role ? At this point of time above definition will help you.

17. Travis integrations

a. We can create an integration or connection between a role in galaxy and travis.

b. once the connection is established, a build in travis will automatically trigger an import in galaxy , updating the search index with the latest information about the role.

Command: `ansible-galaxy setup travis github_user github_repo XXX-travis-token-xxx`

18. List Travis integrations

a. We can use the –list option to display your travis integrations.

Command: `ansible-galaxy setup –list`

19. Remove Travis Integrations

a. We can use the -remove option to disable and remove a travis integration.

Command: `ansible-galaxy setup --remove ID`

LINUX KURIOSITY

Ansible (Practical Book)

Playbook keywords

Learn in a Simple & Smart way

LINUX KURIOSITY

1. Introduction

a. There are four playbook objects

1. play
2. Role
3. Block
4. Task

2. Play

a. any_errors_fatal: Force any un-handled task errors on any host to propagate to all hosts and end the play.

Interview QA: Suppose you are going for the interview and interviewer ask you what is any_error_fatal module ? At this point of time above definition will help you.

b. debugger: Enable debugging tasks based on state of the task result.

Interview QA: Suppose you are going for the interview and interviewer ask you what is debugger ? At this point of time above definition will help you.

c. port : It is used to replace the default port used in a connection.

Interview QA: Suppose you are going for the interview and interviewer ask you what is port ? At this point of time above definition will help you.

d. environment: A dictionary that gets converted into environment vars to be provided for the task upon execution.

Interview QA: Suppose you are going for the interview and interviewer ask you what is environment module ? At this point of time above definition will help you.

e. max_fail_percentage: can be used to abort the run after a given percentage of hosts in the current batch has failed.

Interview QA: Suppose you are going for the interview and interviewer ask you what is max_fail_percentage module ? At this point of time above definition will help you.

3. Role

a. become: Boolean that controls if privilege escalation is used or not on task execution.

Interview QA: Suppose you are going for the interview and interviewer ask you what is become module ? At this point of time above definition will help you.

b. no_log : Boolean that controls information disclosure.

c. remote_user: user used to log into the target via the connection plugin.

d. check_mode: A boolean that controls if a task is executed in 'check' mode.

e. module_defaults: Specifies default parameter values for modules.

4. Block

a. delegate_facts: It is a boolean that allow you to apply facts to a delegated host instead of inventory_hostname.

b. rescue: list of tasks in a block that run if there is a task error in the main block list.

c. check_mode: It is a boolean that controls if a task is executed in check mode.

d. ignore_unreachable: Boolean that allows you to ignore unreachable hosts and continue with play.

e. run_once: Boolean that will bypass the host loop, forcing the task to attempt to execute on the first host available and afterwards apply any results and facts to all active hosts in the same batch.

f. Task:

a. action: The action to execute for a task, it normally translates into a C(module) or action plugin.

b. delay: Number of seconds to delay between retries.It is used in combination with until.

c. loop_control: several keys here allow you to modify/set loop behaviour in a task.

d. register: It is name of variable that will contain task status and module return data.

e. poll: sets the polling interval in seconds for async tasks (default 10s)

LINUX KURIOSITY

Ansible Configuration (Practical Book)

Learn in a Simple & Smart way

1. Introduction

a. Ansible supports a few ways of providing configuration variables, mainly through environment variables, command line switches and an ini file named ansible.cfg

Interview QA: Suppose you are going for the interview and interviewer ask you what is the importance of ansible configuration file? At this point of time above definition will help you.

2. Action_warnings

a. By default ansible will issue a warning when received from a task action (module or action plugin). These warnings can be silenced by adjusting this setting to false.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of action_warnings ? At this point of time above definition will help you.

3. Allow_world_readable_tmpfiles

a. This option makes the temporary files created on the machine to be world readable and will issue a warning instead of failing the task.It is useful when becoming an unprivileged user.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the importance of allow_world_readable_tmpfiles ? At this point of time above definition will help you.

4. Ansible_nocolor

a. This setting allows suppressing colorizing output, which is used to give a better indication of failure and status information.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of ansible_nocolor ? At this point of time above definition will help you.

5. Ansible_ssh_retries

a. Number of attempts to establish a connection before we give up and report the host as unreachable.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of the ansible_ssh_retries? At this point of time above definition will help you.

6. cache_plugin_connection

a. Defines connection or path information for the cache plugin.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of cache_plugin_connection ? At this point of time above definition will help you.

7. cache_plugin_timeout

a. expiration timeout for the cache plugin data

8. color_changed

a. defines the color to use on changed task status

9. color_debug

a. defines the color to use when emitting debug messages.

10. color_deprecate

a. defines the color to use when emitting deprecation messages.

11. color_error

a. defines the color to use when emitting error messages.

12. color_highlight

a. defines the color to use for highlighting.

13. color_ok

a. defines the color to use when showing 'OK' task status

14. default_ask_su_pass

a. This controls whether an ansible playbook should prompt for a su password.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of the default_ask_su_pass ? At this point of time above definition will help you.

15. default forks

a. maximum number of forks ansible will use to execute tasks on target hosts.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of the ansible configuration file? At this point of time above definition will help you.

16. default_keep_remote_files

a. enables/disables the cleaning up of the temporary files ansible used to execute the tasks on the remote.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of the default_keep_remote_files? At this point of time above definition will help you.

17. default_local_tmp

a. temporary directory for ansible to use on the controller.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the importance of the default_local_tmp ? At this point of time above definition will help you.

18. default_log_filter

a. list of logger names to filter out of the log file.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the use of default_log_filter? At this point of time above definition will help you.

19. default_module_compression

a. compression scheme to use when transferring python modules to the target.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the importance of default_module_compression? At this point of time above definition will help you.

20. default_strategy

a. set the default strategy used for plays.

Interview QA: Suppose you are going for the interview and interviewer ask you what is the importance of default strategy ? At this point of time above definition will help you.

LINUX KURIOSITY

Cloud Modules (Ansible)

Learn in a Simple & Smart way

1. aws_acm_facts (amazon)

a. It is used to retrieve certificate facts from AWS certificate manager service.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the aws_acm_facts ? At this point of time above definition will help you.

2. atomic_container (atomic)

a. It is used to manage the containers on the atomic host platform.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the atomic_container ? At this point of time above definition will help you.

3. azure (Azure)

a. It is used to create or terminate a virtual machine in azure.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the azure ? At this point of time above definition will help you.

4. clc_server (Centurylink)

a. It is used to create, delete, start and stop servers in centurylink cloud.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the clc_server ? At this point of time above definition will help you.

5. cloudscale_server (cloudscale)

a. It is used to manages floating Ips on the cloudscale.ch laas service.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the cloudscale_server ? At this point of time above definition will help you.

6. cs_account (Cloudstack)

a. It is used to manage account on apache cloudstack based clouds.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the cs_account ? At this point of time above definition will help you.

7. digital_ocean (Digital_Ocean)

a. It is used to create or delete a droplet or ssh_key in digitalocean.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the digital_ocean ? At this point of time above definition will help you.

8. dimensiondata_vlan (Dimensiondata)

a. It is used to manage a VLAN in a cloud control network domain.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the dimensiondata_vlan ? At this point of time above definition will help you.

9. docker_container (Docker)

a. It is used to manage docker containers.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the docker_container ? At this point of time above definition will help you.

10. gc_storage (Google)

a. It is used to manages objects/buckets in google cloud storage.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the gc_storage ? At this point of time above definition will help you.

11. linode (Linode)

a. It is used to manage instances on the linode public cloud.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the linode ? At this point of time above definition will help you.

12. memset_zone (Memset)

a. It is used to creates and deletes memset DNS zones.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the memset_zone ? At this point of time above definition will help you.

13. oneandone_public_ip (Oneandone)

a. It is used to configure 1&1 public Ips.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the oneandone_public_ip ? At this point of time above definition will help you.

14. online_user_facts (Online)

a. It is used to gather facts about online user.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the online_user_facts ? At this point of time above definition will help you.

15. one_host (Opennebula)

a. Manages opennebula hosts.

16. os_image (Openstack)

a. It is used to add or delete images from openstack cloud.

17. packet_device (Packet)

a. It is used to manage a bare metal server in the packet host.

18. rax (Rackspace)

a. It is used to create or delete an instance in rackspace public cloud.

19. scaleway_volume _facts (Scaleway)

a. Gather facts about the scaleway volumes avaiable.

20. vca_fw (Vmware)

a. It is used to add remove firewall rules in a gateway in a vca.

LINUX KURIOSITY

Clustering & Command modules (Ansible)

Learn in a Simple & Smart way

1. consul

a. It will add , modify or delete services within a consul cluster.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the consul ? At this point of time above definition will help you.

2. consul_acl

a. It will manipulate consul ACL keys and rules.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the vca_fw ? At this point of time above definition will help you.

3. consul_kv

a. It will manipulate entries in the key/value store of a consult cluster.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the consul_kv ? At this point of time above definition will help you.

4. consul_session

a. It is used to manipulate consul sessions.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the consul_session ? At this point of time above definition will help you.

5. etcd3

a. It is used to set or delete key value pairs from an etcd3 cluster.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the etcd3 ? At this point of time above definition will help you.

6. pacemaker_cluster

a. It is used to manage pacemaker clusters.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the pacemaker_cluster ? At this point of time above definition will help you.

7. znode

a. It is used to create, delete, retrieve and update znodes using zookeeper.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the znode ? At this point of time above definition will help you.

8. k8s

a. It is used to manage kubernetes objects.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the k8s ? At this point of time above definition will help you.

9. k8s_scale

a. It is used to set a new size for a deployment, replicaset,replication controller or job.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the k8s_scale ? At this point of time above definition will help you.

10. k8s_facts

a. Above module describe kubernetes (k8s) objects.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the k8s_facts ? At this point of time above definition will help you.

11. kubernetes

a. It is used to manage kubernetes resources.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the kuberntes module ? At this point of time above definition will help you.

12. oc

a. It is used to manage openshift resources.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the oc ? At this point of time above definition will help you.

13. command:

a. It is used to executes a command on a remote node.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the command ? At this point of time above definition will help you.

14. expect

a. It is used to executes a command and responds to prompts.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the expect ? At this point of time above definition will help you.

15. psexec

a. It is used to run commands on a remote windows host based on the psexec model.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the psexec ? At this point of time above definition will help you.

16. raw

a. It is used to executes a low-down and dirty ssh command.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the raw ? At this point of time above definition will help you.

17. script

a. run a local script on a remote node after transferring it.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the script ? At this point of time above definition will help you.

18. shell

a. execute commands in nodes.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the shell ? At this point of time above definition will help you.

19. telnet

a. executes a low down and dirty telnet command.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the telnet ? At this point of time above definition will help you.

LINUX KURIOSITY

Database & File Modules (Ansible)

Learn in a Simple & Smart way

1. influxdb_database

a. It is used to manage influxdb databases.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the influxdb_database ? At this point of time above definition will help you.

2. kibana_plugin

a. It is used to manage kibana plugins

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the kibana_plugin ? At this point of time above definition will help you.

3. mongodb_user

a. It is used to add or removes a user from a mongodb database.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the mongodb_user ? At this point of time above definition will help you.

4. mssql_db

a. It is used to add or remove MSSQL databases from a remote host.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the mssql_db ? At this point of time above definition will help you.

5. mysql_db

a. It is used to add or remove mysql databases from a remote host.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the mysql_db ? At this point of time above definition will help you.

6. postgresql_db

a. It is used to add or remove postgresql databases from a remote host.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the postgresql_db ? At this point of time above definition will help you.

7. proxysql_global_variables

a. It is used to gets or sets the proxysql global variables

8. vertica_facts

a. It is used to gathers vertica database facts.

9. vertica_user

a. It is used to adds or removes vertica database users and assign roles.

10. acl

a. It is a file module which is used to set and retrieves file ACL information.

11. archive

a. It is used to creates a compressed archive of one or more files or trees.

12. copy

a. Copies files to remote locations.

13. fetch

a. It is used to fetches a file from remote nodes.

14. iso_extract

a. It is used to extract files from an ISO image.

15. lineinfile

a. Manage lines in text files.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the lineinfile ? At this point of time above definition will help you.

16. stat

a. retrieve file or file system status

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the stat ? At this point of time above definition will help you.

17. tempfile

a. creates temporary files and directories.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the tempfile ? At this point of time above definition will help you.

18. unarchive

a. Unpacks an archive after copying it from the local machine.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the unarchive ? At this point of time above definition will help you.

19. xattr

a. It is used to manage user defined extended attributes.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the xattr ? At this point of time above definition will help you.

20. xml

a. It is used to manage bits and pieces of XML files or strings.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the xml ? At this point of time above definition will help you.

LINUX KURIOSITY

Identity & Messaging modules (Ansible)

Learn in a Simple & Smart way

1. onepassword_facts

a. It is a module which is used to fetch facts from 1password items.

2. cyberark_authentication

a. It is a module for cyberark vault authentication using PAS web services SDK.

3. ipa_config

a. It is a module which is used to manage global freeIPA configuration settings.

4. ipa_user

a. It is a module which is used to manage FreeIPA users.

5. ipa_vault

a. It is module which is used to manage FreeIPA vaults.

6. keycloak_client

a. It is a module which allow administration of keycloak clients via keycloak API.

7. group_by

a. It is a inventory modules which is used to create   ansible groups based on facts.

8.rabbitmq_binding

a. It is a module which manages rabbitMQ bindings.

9. rabbitmq_exchange

a. It is a module which manages rabbitMQ exchanges.

10. rabbitmq_user

a. It is a module which is used to add or removes users to RabbitMQ.

LINUX KURIOSITY

Monitoring & Network Modules (Ansible)

Learn in a Simple & Smart way

1. logicmonitor

a. It is a module which is used to manage your logicmonitor account through ansible playbooks.

2. logicmonitor_facts

a. It is a module which is used to collect facts about logicmonitor objects.

3. monit

a. It is a module which is used to manage the state of a program monitored via monit.

4. pagerduty

a. It is a module which is used to create pagerduty maintenance windows.

5. uptimerrobot

a. It is a module which is used to pause and start uptime robot monitoring.

6. zabbix_host_facts

a. It is a module which is used to gather facts about zabbix host.

7. zabbix_group_facts

a. It is a module which is used to gather facts about zabbix hostgroup.

8. net_banner

a. It is a network module which is used to manage multline banners on network devices.

9. net_logging

a. It is a network module which is used to manage logging on network devices.

10. net_ping

a. It is a network module which is used to tests reachability using ping from a network device.

LINUX KURIOSITY

Notification & packaging modules (Ansible)

Learn in a Simple & Smart way

1. Jabber

a. It is a module which is used to send a message to jabber user or chatroom.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the jabber ? At this point of time above definition will help you.

2. twilio

a. It is a module which is used to send text message to a mobile phone through twilio.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the twilio ? At this point of time above definition will help you.

3. say

a. It is a module which makes computer to speak.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the say ? At this point of time above definition will help you.

4. hipchat

a. It is a module which send a message to hipchat.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the hipchat ? At this point of time above definition will help you.

5. slack

a. It is a module which send slack notifications.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the slack ? At this point of time above definition will help you.

6. bower

a. It is a module which manages bower packages with bower

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the bower ? At this point of time above definition will help you.

7. npm

a. It is a module which manages node.js packages with npm.

8. pip

a. It is a module which manages python library dependencies.

9. rhn_channel

a. It is a module which adds or removes redhat software channels.

10. apk

a. It is a module which manages packages with the dnf package manager.

LINUX KURIOSITY

Remote Management & Source code modules (Ansible)

Learn in a Simple & Smart way

1. wakeonlan

a. It is a module which send a magic wake on lan broadcast packet.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the wakeonlan ? At this point of time above definition will help you.

2. hpilo_boot

a. It is a module which boot system using specific media through HP iLO interface.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the hpilo_boot ? At this point of time above definition will help you.

3. ipmi_boot

a. It is a module which is used to manage the order of boot devices.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the ipmi_boot ? At this point of time above definition will help you.

4. ipmi_power

a. It is a module which manages the power of the machine.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the ipmi_power ? At this point of time above definition will help you.

5. ucs_ip_pool

a. It is a module which configures IP address pools on cisco UCS manager.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the ucs_ip_pool ? At this point of time above definition will help you.

6. git

a. It is a module which deploy software from git checkouts.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the git ? At this point of time above definition will help you.

7. git_config

a. It is a module which read and write git configuration.

8. gitlab_hooks

a. It is a module which manages gitlab project hooks.

9. subversion

a. It is a module which deploys a subversion repository.

10. github_issue

a. It is a module which view github issue.

LINUX KURIOSITY

Storage & System Modules (Ansible)

Learn in a Simple & Smart way

1. emc_vnx_sg_member

a. It is a module which manage storage group member on EMC VNX.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the emc_vnx_sg_member ? At this point of time above definition will help you.

2. gluster_volume

a. It is a module which manage glusterfs volumes.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the gluster_volume ? At this point of time above definition will help you.

3. ibm_sa_vol

a. It is a module which manages volumes on an IBM spectrum acclerate storage array.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the ibm_sa_vol ? At this point of time above definition will help you.

4. infini_vol

a. It is a module which is used to create, delete or modify volumes on infinibox.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the infini_vol ? At this point of time above definition will help you.

5. purefa_ds

a. It is a module which is used to configure flasharray directory service.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the purefa_ds ? At this point of time above definition will help you.
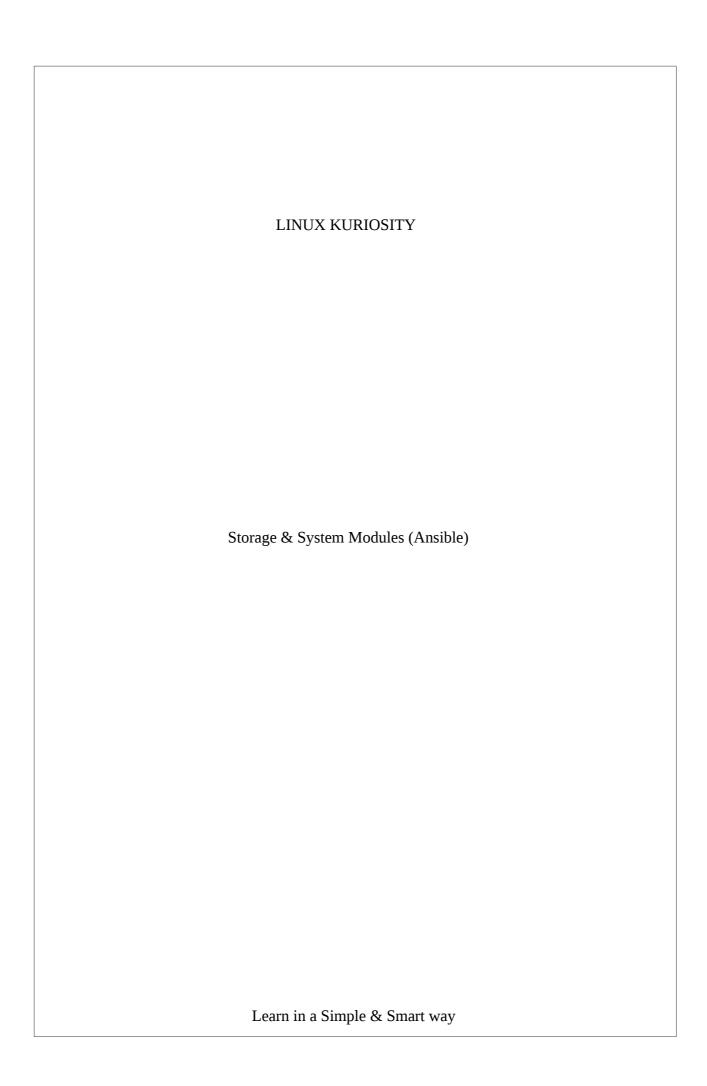
6. at

a. It is a module which schedule the execution of a command or script file via the at command.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the at ? At this point of time above definition will help you.

7. known_hosts

a. It is a module which add or remove a host from the known_hosts file.

8. setup

a. It is a module which gathers fact about remote hosts.

9. ufw

a. It is a module which manage firewall with UFW.

10. vdo

a. It is a module which control VDO.

LINUX KURIOSITY

Utilities & Web Infrastructure Modules (Ansible)

Learn in a Simple & Smart way

1. pause

a. It is a module which pause playbook execution.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the pause ? At this point of time above definition will help you.

2. set_fact

a. It is a module which set host facts from a task.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the set_fact ? At this point of time above definition will help you.

3. set_stats

a. It is a module which set stats for the current ansible run.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the set_stats ? At this point of time above definition will help you.

4. wait_for

a. It is a module which waits for a condition before continuing.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the wait_for? At this point of time above definition will help you.

5. wait_for_connection

a. It is a module which waits until remote system is unreachable /usable.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the wait_for_connection ? At this point of time above definition will help you.

6. htpasswd

a. It is a web infrastructure module which manages user files for basic authentication.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the htpasswd ? At this point of time above definition will help you.

7. jenkins_plugin

a. It is a web infrastructure module which add or remove jenkins plugin.

8. nginx_status_facts

a. It is a web infrastructure module which retrieve nginx status facts.

9. jira

a. It is web infrastructure module which create and modify issues in a JIRA instance.

10. django_manage

a. It is a web infrastructure module which manages a django application.

LINUX KURIOSITY

Swarm of Docker Engines (Docker)

Learn in a Simple & Smart way.

1. Manager nodes are the key component for managing the swarms and storing the swarm state.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the manager nodes ? At this point of time above definition will help you.

2. Swarm manager nodes use the raft consensus algorithm to manage the swarm state.

Interview QA : Suppose you are going for the interview and interviewer ask you how swarm nodes manages the nodes ? At this point of time above definition will help you.

3. If the swarm loses the quorum of managers, the swarm cannot perform management tasks.

Interview QA : Suppose you are going for the interview and interviewer ask you what will happen if swarm loses the quorum of managers ? At this point of time above definition will help you.

4. When initiating a swarm, you must specify the –advertise-addr flag to advertise your address to other manager nodes in the swarm.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the –advertise-addr flag ? At this point of time above definition will help you.

5. We should maintain an odd number of managers in the swarm to support manager node failures.

Interview QA : Suppose you are going for the interview and interviewer ask you how to maintain manager node failures? At this point of time above definition will help you.

6. By default manager nodes also act as a worker nodes.

Interview QA : Suppose you are going for the interview and interviewer ask you Is it true manager nodes act as a worker nodes ? At this point of time above definition will help you.

7. To avoid interference with manager node operation , we can drain manager nodes to make them unavailable as worker nodes:

Command: `docker node update --availability drain node-name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to avoid interference with manager node operation? At this point of time above definition will help you.

8.We can monitor the health of manager nodes by running the below command.

Command: `docker node inspect node-id`

Interview QA : Suppose you are going for the interview and interviewer ask you how to monitor the health of manager nodes ? At this point of time above definition will help you.

9. We can also get the overview of the swarm health from a manager node with below command.

Command: `docker node ls`

Interview QA : Suppose you are going for the interview and interviewer ask you how to view swarm health from a manager node ? At this point of time above definition will help you.

Note: We should never restart a manager node by copying the raft directory from another node.

10. Below are the steps to cleanly re-join a manager node to a cluster.

a. To demote the node to a worker.

Command: `docker node demote node-name`

b. To remove the node from the swarm

Command: `docker node rm node-name`

c. Rejoin the node to the swarm with a fresh state.

Command: `docker swarm join`

Interview QA : Suppose you are going for the interview and interviewer ask you what are the steps to cleanly re-join a manager node to a cluster ? At this point of time above definition will help you.

11. We can forcefully remove the node without shutting it down by passing the --force flag.

Command: `docker node rm --force node-name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to remove the node ? At this point of time above definition will help you.

12. Docker manager nodes store the swarm state and manager logs in the /var/lib/docker/swarm directory.

Interview QA : Suppose you are going for the interview and interviewer ask you where docker manager nodes store the swarm state and manager logs ? At this point of time above definition will help you.

13. Re-initialize the swarm using the following command:

Command: `docker swarm init --force-new-cluster`

Interview QA : Suppose you are going for the interview and interviewer ask you how to reinitialize the swarm ? At this point of time above definition will help you.

LINUX KURIOSITY

Notary Client (Docker)

Learn in a Simple & Smart way

1. Before adding and signing content to a collection, you must first initialize that collection.

Command: `notary init example.com/collection`

Interview QA : Suppose you are going for the interview and interviewer ask you how to add and sign content to a collection ? At this point of time above definition will help you.

2. To add targets to a trusted collection with below command

Command: `notary add example.com/collection target-name local-file-name`

Interview QA : Suppose you are going for the interview and interviewer ask you how to add targets to a trusted collection? At this point of time above definition will help you.

3. To remove targets, we use the notary remove command.

Command: `notary remove example.com/collection v1`

Interview QA : Suppose you are going for the interview and interviewer ask you how to remove the targets ? At this point of time above command will help you.

4. By default, the notary client is responsible for managing the private keys for root,targets & snapshot roles.

5. The notary server is always responsible for managing the timestamp key.

Interview QA : Suppose you are going for the interview and interviewer ask you what is notary server? At this point of time above definition will help you.

6. We can use the notary key rotate command to rotate the targets or snapshot keys.

Interview QA : Suppose you are going for the interview and interviewer ask you how to rotate the targets or snapshot keys ? At this point of time above definition will help you.

7. Notary can be used with Yubikey 4 keys.

Interview QA : Suppose you are going for the interview and interviewer ask you Is it possible to use notary with the yubikey? At this point of time above definition will help you.

8. The Yubikey is prioritized to store root keys and requires user touch-input for signing.

Interview QA : Suppose you are going for the interview and interviewer ask you what is yubikey? At this point of time above definition will help you.

9. Delegation roles simplify collaborator workflows in notary trusted collections and also allow for fine-granted permissions within a collection's contents across delegations.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of delegation ? At this point of time above definition will help you.

10. We can view the delegations using a list command.

Command: `notary delegation list example.com/collection`

Interview QA : Suppose you are going for the interview and interviewer ask you how to view delegations ? At this point of time above command will help you.

11. Notary stores state in its trust_dir directory, which is ~/.notary by default.

Interview QA : Suppose you are going for the interview and interviewer ask you where notary stores state ? At this point of time above definition will help you.

LINUX KURIOSITY

Ambassador container & Apparmor security profiles (Docker)

Learn in a Simple & Smart way

1. Ambassador pattern is used to abstract services.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the ambassador pattern? At this point of time above definition will help you.

2. User-defined networks allow you to connect services together, including managing DNS resolution among them.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of user-defined networks? At this point of time above definition will help you.

3. Overlay networks allow containers running on different docker hosts to communicate in a seamless, encapsulated way.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the overlay networks ? At this point of time above definition will help you.

4. config allow you to plug configuration details into swarm service containers at runtime instead of backing configuration details into your docker images.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of config ? At this point of time above definition will help you.

5. stacks allow you to group multiple swarm services together, including defining networks, storage and dependency relationships among the services.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the stacks? At this point of time above definition will help you.

6. Application Armor is a linux security model that protects an operating system and its applications from security threats.

Interview QA : Suppose you are going for the interview and interviewer ask you what is application armor ? At this point of time above definition will help you.

7. The docker-default profile is the default for running containers.It is moderately protective while providing wide application compatibility.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the docker-default profile ? At this point of time above definition will help you.

8. Below are the steps to load profiles

a. Command: apparmor_parser -r -W /path/to/your_profile

b. Run the custom profile with –security-opt

 Command: `docker run –rm -it security-opt apparmor=your_profile hello-world`

Interview QA : Suppose you are going for the interview and interviewer ask you how to load the profiles ? At this point of time above definition will help you.

9. Below are the steps to unload profiles

a. Stop apparmor

Command: /etc/init.d/apparmor stop

b. unload the profile

Command: apparmor_parser -R /path/to/profile

c. Start apparmor

Command: /etc/init.d/apparmor start

Interview QA : Suppose you are going for the interview and interviewer ask you how to unload the profiles ? At this point of time above definition will help you.

10. We can use dmesg command to debug the apparmor

Interview QA : Suppose you are going for the interview and interviewer ask you how to debug the apparmor ? At this point of time above definition will help you.

11. We can use aa-status command to check which profiles are loaded.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of the aa-status command ? At this point of time above definition will help you.

LINUX KURIOSITY

Docker Trusted Registry Architecture

Learn in a Simple & Smart way

1. Docker trusted registry is a containerized application that runs on premises or on the cloud and allows you to store and manage your docker images.

Interview QA : Suppose you are going for the interview and interviewer ask you what is docker trusted registry? At this point of time above definition will help you.

2. There are two types of networks used by DTR

a. dtr-br is a bridge type which allows DTR components on the same node to communicate with each other in a secure way.

b. dtr-ol is a overlay type which allow DTR components running on different nodes to communicate, to replicate DTR data.

Interview QA : Suppose you are going for the interview and interviewer ask you what are the two types of network used by DTR ? At this point of time above definition will help you.

3. By default DTR stores images on the filesystem of the node where it is running, but we can configure it to use an external storage system.

Interview QA : Suppose you are going for the interview and interviewer ask you where DTR store images ? At this point of time above definition will help you.

4. Run docker-machine create with the amazonc2 driver , credentials, inbound port , region and a name for the new instance.

Command: `docker-machine create –driver amazonce2 –amazonc2-open-port 8000 – amazonec2-region us-west-1 aws-sandbox`

Interview QA : Suppose you are going for the interview and interviewer ask you how to create docker-machine ? At this point of time above definition will help you.

5. Use below command to check whether new machine is the active host or not.

Command: docker-machine ls

Interview QA : Suppose you are going for the interview and interviewer ask you how to know whether new machine is the active host or not ? At this point of time above definition will help you.

6. Backup of DTR

Syntax : docker run -i –rm docker/dtr \ backup > backup.tar

Above command creates a tar file with the contents of the volumes used by DTR and prints it.

Interview QA : Suppose you are going for the interview and interviewer ask you how to take the backup of DTR? At this point of time above definition will help you.

7. Use below command to remove any DTR container

Command: docker run -it --rm \
                 docker/dtr:<version> destroy \
                 --ucp-insecure-tls

Interview QA : Suppose you are going for the interview and interviewer ask you how to remove any DTR container? At this point of time above definition will help you.

8.We can restore the DTR metadata with the docker/dtr restore command.

Interview QA : Suppose you are going for the interview and interviewer ask you how to restore the DTR metadata ? At this point of time above definition will help you.

LINUX KURIOSITY

Machine concepts

Learn in a Simple & Smart way

1. Docker machine allows us to provision docker machines in a variety of environments, including virtual machines that reside on your local system, on cloud providers or on bare metal servers.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the role of docker mac/hine ? At this point of time above definition will help you.

2. The docker logs command shows information logged by a running container.

Interview QA : Suppose you are going for the interview and interviewer ask you how to show information logged by a running container ? At this point of time above definition will help you.

3. The docker service logs command shows information logged by all containers participating in a service.

Interview QA : Suppose you are going for the interview and interviewer ask you how to check the logs of all the containers ? At this point of time above definition will help you.

4. We can use sudo service docker status command to know whether docker is running or not.

Interview QA : Suppose you are going for the interview and interviewer ask you how to check the docker status ? At this point of time above definition will help you.

5. We can use below command to start the docker

Command: sudo systemctl start docker

Interview QA : Suppose you are going for the interview and interviewer ask you how to start the docker ? At this point of time above definition will help you.

6. By default docker provides two network drivers for you, the bridge and the overlay drivers.

Interview QA : Suppose you are going for the interview and interviewer ask you what are the two types of network drivers? At this point of time above definition will help you.

7. We can use below command to list out the network.

Command: `docker network ls`

Interview QA : Suppose you are going for the interview and interviewer ask you how to list out the network ? At this point of time above definition will help you.

8. We can use the docker stats command to live stream a container's runtime metrics.

Command: `docker stats`

Interview QA : Suppose you are going for the interview and interviewer ask you how to check the docker runtime metrics ? At this point of time above definition will help you.

9. The ip-netns exec command allows you to execute any program (present in the host system) within any network namespace visible to the current process.

Interview QA : Suppose you are going for the interview and interviewer ask you what is the use of ip-netns exec command ? At this point of time above definition will help you.

10. Compose is a tool for defining and running multi-container docker applications.

Interview QA : Suppose you are going for the interview and interviewer ask you what is compose ? At this point of time above definition will help you.

LINUX KURIOSITY

DevOps:Puppet (Interview QA)

Learn in a simple & smart way

1. What is attribute ?

Ans: Attribute specify the desired state of a given configuration resource.Each resource type has a different set of attributes and each attribute has its own set of allowed values.

2. How to invoke the puppet agent software ?

Ans: We can invoke the agent software by running the puppet-agent command.

3. What is the role of puppet agent ?

Ans: A puppet agent regularly performs puppet runs, wherein it sends facts to a puppet master and receives a configuration catalog, then applies the catalog to the local system using its providers.

4. Catalogs are compiled by whom ?

Ans: Catalogs are compiled by a puppet master from manifests and agent-provided data as well as optional external data.

5. What are the two functions create relationships between classes ?

Ans: require and contain functions

6. What is the role console in puppet ?

Ans: Puppet enterprise includes a web user interface called the console, which provides tools for managing your puppet infrastructure.

7. In puppet what is environment ?

Ans: An environment is an isolated group of puppet agent nodes that a puppet master can serve with its own main manifest and set of modules.

8. What is exported resource ?

Ans: An exported resource is a resource that you have declared to be available to other node that can then collect the exported resource and manage their own copies.

9. What is external node classifier ?

Ans: An external node classifier is an executable script that returns information about which classes to apply to a node when called by a puppet master.

10. What is fact ?

Ans: A piece of information about a node, such as its hostname,IP address and operating system, is a fact.

11. Who reads facts about node such as its hostname, IP address and operating system and makes them available to puppet ?

Ans: Facter is puppet's system inventory tool.

12. What is the name of the repository in which puppet stores files backups when it has to replace files ?

Ans: filebucket

13. What is function ?

Ans: A function is a puppet language statement that returns a value or modifies a catalog.

14.Who provides hierarchical key-value lookup for site-specific data ?

Ans: Hiera tool

15.What is idempotence ?

Ans: Idempotence refers to the concept of doing something multiple times with the same outcome.

16. How to derive puppet class from another class ?

Ans: inherits keyword

17. What is lambda ?

Ans: It is a block of parameterized puppet language code that you can pass to certain functions.

18. What is the main point of entry used by a puppet master when compiling a catalog ?

Ans: main manifest

19. What is manifest ?

Ans: It is a file contains code written in the puppet language and is named with the .pp file extension.

20. Who uses manifest ordering to apply unrelated resources in the order that they are declared in their manifests ?

Ans: puppet

21. Using which server puppet master provides catalogs to agents ?

Ans: puppet master

22. What is the meaning of masterless in puppet ?

Ans: Masterless is a term used to refer to a puppet node that does not rely on a master for its catalog.

23. What is metaparameter ?

Ans: A metaparameter is a resource attribute that can be specified for any type of resource.

24. What is module ?

Ans: A collection of classes, resource types files, function and templates.

25. How to run the puppet in no-op mode ?

Ans: Command: puppet agent --noop

26. What is parameter ?

Ans: A parameter is a chunk of information that a class or resource can accept.

27. What is design pattern ?

Ans: A design pattern is a colloquial term used to describe a collection of related mainfests that are designed to solve an issue or manage a particular configuration item.

28. What is plusignment operator ?

Ans: The plusignment operator adds values to resource attributes using the plusignment syntax.

29. What is profile ?

Ans: A profile represents the configuration of a technology stack for a site and typically consists of one or more classes.

30. What is property ?

Ans: A property is a value that corresponds to an observable part of the target node's state.

31. Who implements resource types on a specific type of system by using the system's own tools ?

Ans: providers

32. What is plugin ?

Ans: A plugin is a custom type, function or fact that extends puppet's capabilities and is distributed via a module.

33. _____ is an open-source database that catches and stores data generated by puppet.

Ans: puppetDB

34. A _____ is a package repository that contains versions of open-source puppet components designed to work together.

Ans: puppet collection

35. When a puppet run ?

Ans: When a puppet agent sends facts and an identifying certificate to a puppet master and requests a compiled catalog in return.

36. What is the role of the puppet server ?

Ans: Puppet server is an open-source java virtual machine application that provides high-performance, scalable puppet master services and an administrative API for maintenance.

37.What is puppetfile ?

Ans: A puppetfile is an authoritative, standalone list that specifies to r10k which modules to install what versions to install and what source to use.

38. Which tool in puppet enterprise helps you manage puppet code in environments and modules by using puppetfiles.

Ans: r10k

39. What is razor ?

Ans: It is a puppet enterprise provisioning application designed to help you discover,configure and deploy bare-metal hardware, even if it doesn't yet have an operating system.

40.Who can take a puppet report, transform it to a specific format and send it to another application, location or service.

Ans: report processor

41. What are the scopes in the puppet language ?

Ans:

a. top scope : from which variables are accessible from anywhere by their short name but can be overridden in a local scope.

b. node scope: a special scope created in a node definition.

c. local scope: where we can refer to a variable by its short name inside that scope and the scope's children, but typically cannot access it from other scopes.

42. What is an in the puppet language such as class that can only be evaluated once ?

Ans: singleton

LINUX KURIOSITY

JIRA AGILE (Interview QA)

Learn in a Simple & Smart way

1. What is backlog ?

Ans: A backlog is a list of the outstanding user stories, bugs and features for a product or sprint.

2. What is Burndown chart ?

Ans: A burndown chart shows the actual and estimated amount of work to be done in a sprint.

The horizontal x-axis in a burndown chart indicates time and vertical y-axis indicates cards.

3. What is control chart ?

Ans: A control chart can show the cycle time or lead time of your product, version or sprint. The horizontal x-axis in a control chart indicates time and the vertical y-axis indicates the number of days issues have spent in those statuses.

4. What is cumulative flow diagram ?

Ans: A cumulative flow diagram is an area chart that shows the various statuses of work items for a particular time interval.

5. What is cycle time ?

Ans: cycle time is the time spent working on an issue.

6. What is epic ?

Ans: An epic captures a large body of work.

7. What is kanban ?

Ans: Kanban is a system for visualizing the flow of work and limiting work in progress. Kanban allows a team to reduce waste and focus on delivering customer value.

8. What is kanban board ?

Ans: A kanban board is a board that was created using either the "kanban" preset or the "DIY" option.

9. What is lead time ?

Ans: lead time is the time taken from when an issue is logged until work is completed on that issue.

10. What is product backlog ?

Ans: A product backlog is a high level list of customer requirements for the project that is owned by the product owner /manager

11. What is the role of quick filter ?

Ans: A quick filter refines the collection of issues displayed on your board.

12. What is scrum ?

Ans: Scrum is an agile development methodology where work is completed iteratively over a number of discrete time periods.

13. What is scrum board ?

Ans: A Scrum board is a board that was created using the "scrum" preset.

14. What is the meaning of scrum of Scrums ?

Ans: Scrum of scrums is a means of scaling scrum to large, multi-team projects.

15. What is sprint ?

Ans: A sprint is also known as iteration which is a short period in which the development team implements and delivers a discrete product increment.

16 What is sprint backlog ?

Ans: A sprint backlog contains the list of tasks that need to be completed to implement the features planned for a particular sprint.

17. What is the role of swimlane ?

Ans: A swimlane is a means of categorising issues so that agile teams can see which issues they should work on next.

18. What is velocity ?

Ans: The velocity of a team is a measure of how much work that the team can handle within a specific time period i.e how much of the product backlog can be completed by the team in a sprint.

19. What is the role of wallboard ?

Ans: A wallboard is a type of information radiator that displays vital data about the progress of the development team.

20. What is version ?

Ans: A version is a set of features and fixes released together as a single update to your product.