Submission by: Ashish Kumar

DevOps Master's

ASSIGNMENT 6

Ques. 1. Explain ls command.
Answer: "ls" is a command in Unix-based operating systems that lists the contents of a directory. The command can take various options and arguments to modify its behavior and display, such as showing hidden files, sorting files in a specific order, displaying file sizes and timestamps, etc. By default, the "ls" command lists the names of the files and directories in the current working directory.

Ques. 2. What are the various versions of ls command?
Answer: The "ls" command has been implemented in many Unix-like operating systems, each with its own implementation and variations. Some of the popular versions of "ls" include:

- BSD ls: Developed for BSD Unix systems, it's known for its detailed and informative output format.
- GNU ls: This is the version of "ls" that is commonly used in Linux distributions. It's known for its wide range of options and ability to handle color output.
- macOS ls: The version of "ls" that is used in Apple's macOS is similar to the BSD implementation, but has some additional features and differences in output format.

It's worth noting that while these implementations of "ls" have similarities, they also have differences in the options they support and the format of their output.

Ques. 3. What is a Linux distro?
Answer: A Linux distribution, often referred to as a "distro," is a version of the Linux operating system that has been packaged and distributed for use on a wide range of computers. A Linux distro typically includes the Linux kernel (the core of the operating system), various tools and utilities, a graphical user interface, and a package manager to easily install and manage additional software.
Some popular Linux distributions include:

- Ubuntu
- Fedora
- Debian
- CentOS
- Red Hat Enterprise Linux (RHEL)
- Mint

Each Linux distro has its own unique features and target audience, such as Fedora being focused on cutting-edge technology and Debian being known for its stability and reliability. There are also specialized distros for different uses, such as penetration testing, multimedia production, and gaming.

Ques. 4. What are the Linux distro you know?
Answer: Some popular Linux distributions include:

- Ubuntu
- Fedora
- Debian
- CentOS
- Red Hat Enterprise Linux (RHEL)
- Mint

Ques. 5. What is the command to calculate the size of a folder?
Answer: To calculate the size of a directory (folder) in Linux, you can use the "du" (disk usage) command. The basic syntax is:

du -sh [directory]

Ques. 6. How can you find the status of a process?
Answer: To find the status of a process in Linux, you can use the "ps" (process status) command. The basic syntax is:

ps -ef | grep [process_name eg - nginx]

Another common command to see all processes running on the system is:

top

Ques. 7. How can you check the memory status?
Answer: To check the memory status in Linux, you can use the "free" command. The basic syntax is:

free [options]

The most commonly used options for checking memory status are:

- -h: Display the output in human-readable format, with sizes expressed in kilobytes, megabytes, or gigabytes.
- -m: Display the output in megabytes.

Ques. 8. Explain how to enable root logging in Ubuntu?
Answer: In Ubuntu, root logging is enabled by default. However, if for some reason it has been disabled, you can enable it by making changes to the system's syslog configuration file. Here's the process to enable root logging in Ubuntu:

- Open the terminal and run the following command to open the syslog configuration file:

  sudo nano /etc/rsyslog.d/50-default.conf

- Find the following line in the file:

  #*.=debug;\

- Uncomment the line by removing the "#" symbol at the beginning of the line, so that it looks like this:

  *.=debug;\

- Add the following line immediately below it:

auth.authpriy.* /var/log/auth.log

- Save and close the file.

- Restart the rsyslog service to apply the changes:
  sudo service rsyslog restart

After completing these steps, root logging should be enabled, and all authentication-related logs will be saved to the **/var/log/auth.log** file. You can view the log file using the following command:

sudo cat /var/log/auth.log

Ques. 9. What is the use of the sudo command?
Answer: The sudo command is used to execute a command as another user, typically the root user. In a Linux system, the root user has administrative privileges and can perform tasks that are not available to regular users, such as installing software, changing system settings, and accessing sensitive files.
By using sudo before a command, you are temporarily elevating your privileges to those of the root user, allowing you to perform administrative tasks. This is a security feature that helps prevent accidental damage to the system and ensures that administrative tasks are performed by authorized users.
For example, to install a new package using apt-get, you would run the following command:

sudo apt-get install [package-name]

Ques. 10. Explain how to uninstall the libraries in Linux?
Answer: In Linux, libraries are typically uninstalled using package managers such as apt (for Debian and Ubuntu-based distributions) or yum (for Red Hat and Fedora-based distributions). Here's the process for uninstalling a library in a Debian-based distribution using apt:

- Open a terminal window.

- Run the following command to see a list of all installed packages:

  sudo apt list --installed

- Find the name of the library you want to uninstall in the list.

- Run the following command to remove the library:

  sudo apt remove [library-name]

- For example, to remove the libcurl3 library, you would run:

  sudo apt remove libcurl3