Sample question for Practice (ST-1)

What is the primary function of the Linux kernel?

A) User interface

B) Device drivers management

C) File system navigation

D) System administration

Which component of Linux is responsible for managing processes and system resources?

A) Shell

B) Kernel

C) Libraries

D) File system

The shell in Linux is responsible for:

A) Managing hardware resources

B) Providing a command-line interface

C) Controlling the graphical user interface

D) Handling file system operations

Who is the original creator of the Linux kernel?

A) Richard Stallman

B) Linus Torvalds

C) Eric S. Raymond

D) Andrew Tanenbaum

 In which year was the first version of the Linux kernel released?

A) 1985

B) 1991

C) 1995

D) 2000

The GNU General Public License (GPL), under which Linux is distributed, is an example of:

A) Proprietary software license

B) Open-source license

C) Freeware license

D) Commercial license

Which Linux distribution is known for its focus on simplicity and ease of use?

A) Fedora

B) Arch Linux

C) Ubuntu

D) CentOS

What is the package management system used by Debian-based Linux distributions?

A) RPM

B) Pacman

C) apt

D) YUM

Which of the following Linux distributions is designed for penetration testing and ethical hacking?

A) Kali Linux

B) Red Hat Enterprise Linux

C) Gentoo

D) openSUSE

The Linux distribution commonly used for servers and enterprise environments is:

A) Ubuntu Server

B) CentOS

C) Debian

D) Fedora Server

What is the primary responsibility of the kernel in an operating system?

A) Managing user applications

B) Providing a graphical user interface

C) Handling system resources and core functionalities

In a microkernel architecture, which of the following components typically runs in user space rather than kernel space?

A) Device drivers

B) Process scheduler

C) File system

D) Memory management

Which of the following file systems is commonly used by Linux, while not natively supported by Windows?

A) NTFS

B) FAT32

C) ext4

D) exFAT

What is a major distinction between Windows and Linux in terms of licensing?

A) Linux is always open source, while Windows requires a paid license.

B) Windows is always open source, while Linux requires a paid license.

C) Both Windows and Linux are always open source.

D) Both Windows and Linux require a paid license.

Which of the following is a characteristic feature of Linux, distinguishing it from Windows?

A) Linux uses a graphical user interface by default.

B) Linux is primarily designed for gaming.

C) Linux follows a monolithic kernel architecture.

D) Linux supports only a limited number of programming languages.

During the Linux installation process, which component allows users to select specific software packages to install?

   A) BIOS settings

   B) Bootloader configuration

   C) Package manager

   D) Kernel customization

In the Linux structure, what does the /bin directory contain?

    A) Boot files

    B) Binary executable files

    C) Backup files

    D) Device files

What is the primary function of the Linux kernel?

    A) Manage peripheral devices

    B) Run applications

    C) Act as an intermediary between software and hardware

    D) Manage network connections

Which command is used to change the current directory in Linux?

    A) mv

    B) cd

    C) ls

    D) pwd

In Linux, what command is used to change the current working directory?

A) move

B) cd

C) change

D) switch

The command ls -l is used to:

A) List all files including hidden files

B) List files in a long format with detailed information

C) List only directories

D) List files sorted by modification time

What does a forward slash (/) represent in a Linux file path?

A) Root directory

B) Home directory

C) Current directory

D) Parent directory

The path ../documents/file.txt represents a:

A) Absolute path

B) Relative path

C) Home path

D) Root path

To create an empty text file named "example.txt," the command would be:

A) touch example.txt

B) create example.txt

C) newfile example.txt

D) edit example.txt

What command is used to create a new directory in Linux?

A) mkdir

B) newdir

C) createdir

D) makedir

The command df -h is used to:

A) Display disk free space in human-readable format

B) Delete files

C) Display disk file information

D) Check disk fragmentation

The command du -sh /directory is used to:

A) Display disk usage of the specified directory

B) Delete files in the specified directory

C) Display detailed information about the directory

D) Check for disk errors in the directory

Which command can be used to find out the sizes of individual files in a directory?

A) size

B) ls -l

C) du -a

D) filesize

In the output of the df command, the "Used" column represents:

A) Total disk space

B) Free disk space

C) Used disk space

D) Available disk space

If you want to navigate to the "user2/documents" directory from the current location, which command should be used?

  a) cd /home/user2/documents

  b) cd /documents

  c) change /user2/documents

  d) dir /user2/documents

What does the command ls /home/user1/documents do in Linux?

  a) Moves files to the "documents" directory

  b) Lists the contents of the "documents" directory in "/home/user1"

  c) Removes the "documents" directory

  d) Creates a new directory named "documents"

In Linux, what does the command ls -l do?

  a) Lists files in the long format

  b) Lists only the directories in a location

  c) Lists files without showing their permissions

  d) Displays hidden files

What is the purpose of the find command with the -exec option in Linux?

A) Display file permissions

B) Execute a command on each found file

C) Find hidden files only

D) Search for files based on content

Which option in the find command is used to search for files modified within the last 24 hours?

A) -mtime +1

B) -mtime 0

C) -mtime -1

D) -mtime 1

What is the purpose of a Linux symbolic link (symlink)?

A) Duplicate a file

B) Create a shortcut to a file or directory

C) Encrypt a file

D) Compress a file

The file /dev/null in Linux is used for:

A) Temporary storage

B) Device communication

C) Log file storage

D) Network communication

In the less command, how can you search for a specific text string within a file?

A) /search

B) find search

C) grep search

D) search /

The tail command with the -f option is commonly used for:

A) Displaying the first lines of a file

B) Following the growth of a log file in real-time

C) Truncating a file

D) Rearranging lines in a file

The chmod command is used to:

A) Change the modification time of a file

B) Change file ownership

C) Change file permissions

D) Change the file type

The chown command is used to:

A) Change file ownership

B) Change file permissions

C) Change the file type

D) Change the modification time of a file

What is the purpose of the umask command in Linux?

A) Set default permissions for new files

B) Change the ownership of a file

C) Display file permissions

D) Remove file permissions