

Question no.1

How do you use a sed command to substitute UNIX with LINUX?

⇒ To use the sed command to substitute "UNIX" with "LINUX" in a file, we can use the following command:
`sed 's/UNIX/LINUX/g' file.txt`

```
19706@ip-172-26-2-101:~$ vi file.txt
19706@ip-172-26-2-101:~$ cat file.txt
The UNIX operating system was first developed in the 1970s by AT&T Bell Labs."
"Many of the early internet servers ran on variants of the UNIX operating system."
UNIX is known for its stability, security, and scalability, which makes it a popular choice for servers and mission-critical applications."
Although macOS is based on the UNIX operating system, it has many features and interfaces that are unique to Apple's ecosystem."
```

```
19706@ip-172-26-2-101:~$ sed 's/UNIX/LINUX/g' file.txt
The LINUX operating system was first developed in the 1970s by AT&T Bell Labs."
"Many of the early internet servers ran on variants of the LINUX operating system."
LINUX is known for its stability, security, and scalability, which makes it a popular choice for servers and mission-critical applications."
Although macOS is based on the LINUX operating system, it has many features and interfaces that are unique to Apple's ecosystem."
19706@ip-172-26-2-101:~$ █
```

This command will replace all occurrences of "UNIX" with "LINUX" in the file named "file.txt" and print the modified text to the standard output.

How do you use awk to print out every line's first and second fields?

⇒ To print out every line's first and second fields using awk, we can use the following command:
`awk '{print $1, $2}' file.txt`

```
[19706@ip-172-26-2-101:~$ vi file.txt
[19706@ip-172-26-2-101:~$ cat file.txt
The quick brown fox jumped over the lazy dog.
Actions speak louder than words.
A penny saved is a penny earned.
```

```
19706@ip-172-26-2-101:~$ awk '{print $1, $2}' file.txt
The quick
Actions speak
A penny
19706@ip-172-26-2-101:~$ █
```

This command will print each line's first and second fields in the file named "file.txt." The print command outputs the specified fields, and \$1 and \$2 are variables in awk that represent the first and second fields, respectively.

Question no.3

Where does the name awk come from?

⇒ The name awk comes from the initials of its creators: Alfred Aho, Peter Weinberger, and Brian Kernighan, who developed the language at Bell Labs in the 1970s.

```
[19706@ip-172-26-2-101:~$ vi numbers.txt
[19706@ip-172-26-2-101:~$ cat numbers.txt
1 2 3
4 5 6
7 8 9
19706@ip-172-26-2-101:~$ awk '{sum += $2} END {print sum}' numbers.txt
15
19706@ip-172-26-2-101:~$ █
```

Question no.4

Where does the name sed come from?

⇒ The name sed comes from the abbreviation "stream editor." Lee E. McMahon created sed at Bell Labs in the 1970s to edit text data streams.

```
[19706@ip-172-26-2-101:~$ vi greetings.txt  
[19706@ip-172-26-2-101:~$ cat greetings.txt  
Hello, World!  
Good morning!  
Bonjour tout le monde!
```

```
19706@ip-172-26-2-101:~$ sed 's/morning/evening/' greetings.txt  
Hello, World!  
Good evening!  
Bonjour tout le monde!  
19706@ip-172-26-2-101:~$ █
```