sed

`**sed**` (stream editor) is a powerful command-line tool in Unix and Unix-like operating systems for text manipulation. It is often used for tasks such as search, find and replace, text transformation, and more. Here are some common `**sed**` commands and their explanations:

1. *Substitute (s):*

- `sed 's/old_pattern/new_pattern/' filename`: Replace the first occurrence of `**old_pattern**` with `**new_pattern**` in the given file.

- `sed 's/old_pattern/new_pattern/g' filename`: Replace all occurrences of `**old_pattern**` with `**new_pattern**` in the given file.

2. *Print (p):*

- `sed -n '2p' filename`: Print the second line of the file.

- `sed -n '2,4p' filename`: Print lines 2 to 4 of the file.

3. *Delete (d):*

- `sed '3d' filename`: Delete the third line of the file.

- `sed '2,4d' filename`: Delete lines 2 to 4 of the file.

4. *Insert (i) and Append (a):*

- `sed '2i\inserted_text' filename`: Insert `**inserted_text**` before the second line.

- `sed '2a\appended_text' filename`: Append `**appended_text**` after the second line.

5. *Replace Lines (c):*

- `sed '2c\new_text' filename`: Replace the second line **with `new_text`.**

6. *Regular Expressions:*

- `sed '/pattern/d' filename`: Delete all lines containing **`pattern`.**

- `sed '/pattern/s/old/new/' filename`: Replace **`old`** with **`new`** on lines containing `pattern`.

7. *Multiple Commands:*

- You can use **`sed`** to apply multiple commands by separating them with semicolons**. For example, `sed 's/old/new/;s/foo/bar/' filename`** would replace **`old`** with **`new`** and **`foo`** with **`bar`** in the file.

8. *In-Place Editing:*

- `sed -i 's/old/new/' filename`: Edit the file in place, replacing **`old`** with **`new`**.

9. *Save Changes to a New File:*

- `sed 's/old/new/' filename > newfile`: Save the modified content to a new file called **`newfile`**.

These are just some of the many capabilities of `sed`. It's a versatile tool for text manipulation in Unix environments. Be cautious when using `sed` with the `-i` option, as it modifies files directly without creating backups.