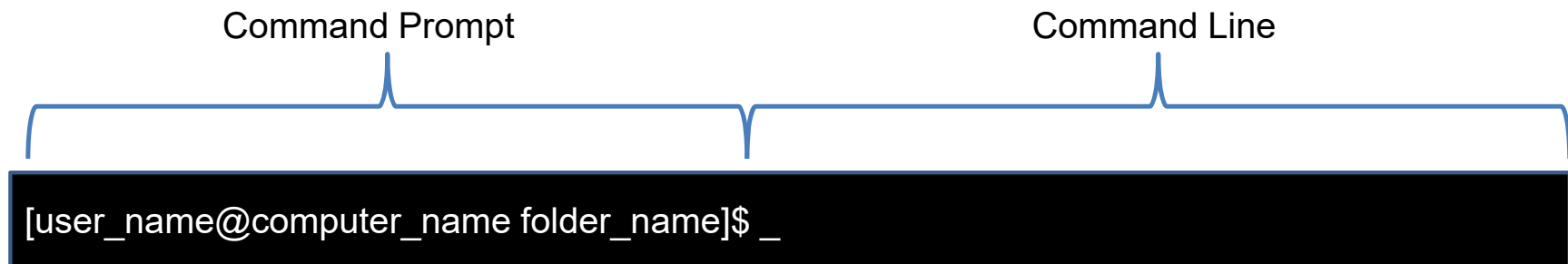# The Shell

A Shell is a program that provides a text only user interface for interacting with the computer. The shell consists of a command prompt, showing the user name and location, and the command line, where commands are entered.
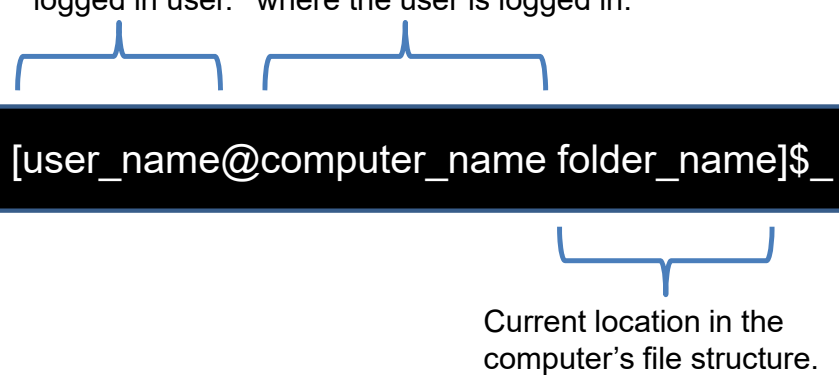
Command Prompt

Command Line

```
[user_name@computer_name folder_name]$ _
```

The Command Prompt

- The command prompt shows basic information.

Name of
logged in user.

Name of computer or server
where the user is logged in.

`[user_name@computer_name folder_name]$_`

Current location in the
computer's file structure.

The Command Line

- Run programs and navigate files by typing commands into the command line, next to the command prompt.

Program

```
[user_name@computer_name folder_name]$ fastqc --help
```

Option

--help

- Note that for most programs that run on the command line, the manual can be accessed by typing the name of the program, followed by a space and "-h" or "--help" as in the example below.

Program

```
[user_name@computer_name folder_name]$ fastqc --help
```

Option

Command line caveats

- Commands are case sensitive. Enter commands exactly as written!
- Spacing and ordering of arguments are important, and can change the output of the command, so enter the commands exactly as written!
- Pressing enter runs the command as it appears in the command line. There is no warning or confirmation!
- Shells are text only interfaces. You cannot click on a space in the command line with the mouse. Use the arrow keys to navigate.

Benefits of using the command line.

- Finer control of program parameters.
- Can string together multiple programs into analysis pipelines.
- Record of exactly what commands and parameters have been run.
- Increased portability and reproducibility.