Exercise questions and answers for "Introdution to Shell"

Questions

Q1: What is a terminal and what is the difference between terminal and shell?

Q2: What is the difference between *absolute path* and *relative path*? Which commands we use to see them?

Q3: Name some simple commands for the following: listing files in the current directory, moving, copying, deleting, writing to the screen.

Q4: Let's say we have a program which gives an output to the output stream. The name of the program is *myprogram*. How would we give the output to a file instead of stdout?

Q5: What is piping and how is it useful?

Q6: What is the admin user called in Unix like systems and how do you get access to it?

Q7: How can you learn details of a command?

Answers

A1: Terminal is a program which runs the shell. It is a separate program from the shell. On a single terminal you can run several shells. Shell is an application which comes with the operating system.

A2: When we are talking about the whole path, we say it is an absolute path. When we write the path relative to where we are, it is relative path. So, if we write `cd ~/src/dir`, it is a full path and therefore absolute. But if we are in *home* directory, we write the relative path as `cd src/dir`. Commands we use are *which* and *pwd* respectively.

A3: ls, mv, cp, rm, echo.

A4: We use the `>` symbol. `./myprogram > out.txt`. This way, the output will not be seen in the *stdout* but in *out.txt*. If we use `>>` instead of `>` it will append it.

A5: It helps us to give the output of a program as an input to other by using `|` symbol. With piping, we can use multiple programs which are not desired for each other collaboratively. Piping wires these programs together. An example is, `echo 'hello world' | tail -n1`. Here, the output of the first command will be the input of the second.

A6: It is called *root* or *superuser*. We use the command su to get root rights. However, we can also add *sudo* to the beginning of the commands that we want to run as root. Usually, it is not recommended to be in *root* mode at all times.

A7: By using *man* command. `man grep` will show us the manual about the *grep* command. We can use it for every command.