Hello,

This video is the second lecture on Linux. It explains some useful commands.

If you have not watched the first lecture, please watch it first.

This video will talk about head and tail. I will review pipe. Then, I will talk about sort, sed, awk, and how to get the user manual.

First, let's consider a file that stores the popular first and last names in a CSV file.

CSV means comma separated values.

Suppose this file is called names. C. S. V. .

The command head prints the first 10 lines of the file.

The command tail prints the last 10 lines of the file.

It is possible to print more or fewer lines by adding a number. In this example, adding minus 15 after head prints the first 15 lines of the file.

Similarly, adding minus 15 after tail prints the last 15 lines of the file.

This is a review of pipe. Pipe means taking the output of a program and treat it as the input of the next program.

In this example, the output of C. A. T. minus N. contains the file and the line numbers. Then, G. R. E. P. finds the lines with I. N. T.

Since the line numbers have been added by C. A. T. already, the output of G. R. E. P. also contains the line numbers.

We will see how pipe can be very useful in the following examples.

This example uses G. R. E. P. to first select the rows with the word First in the file. Then, the sort command orders them. Please notice the minus n option. It means treating the rows as numbers. This treats one zero as number ten. Without minus n, one zero will be treated as two letters. The output of sort is then piped to the command head for printing only the first ten lines.

The sort command also allows specifying the delimiters and which column to sort.

Again, the G. R. E. P. command first selects only the first names. The sort command uses minus T. to specify the delimiter. In this example, the delimiter is comma.

minus K. specifies which column to sort. If it is minus 2, then the sort command orders by the second column and they are the males' first names.

If it is minus 4, sort uses the fourth column and they are females' first names.

The S. E. D. command can replace a letter or a word. The syntax is the following: The first S. means substitute. It is followed by slash. Then, it is the original letter followed by another slash. After the second slash is the new letter. The ending G. means that if the same letter appears multiple times in the same line, substitute all of them.

S. E. D. can substitute a whole word. This example replaces first by Number one.

The next example shows how you can use the A. W. K. command to keep one column. A.W.K. uses space to separate columns. To keep only the second column, first, the S. E. D. command replaces comma by space. Then, the output is sent to A.W.K. using pipe.

A.W.K. print dollar sign 2 means keeping only the second column.

As you can see, it is possible combining several Linux commands to process a text file with great flexibility.

Before concluding this video lecture, I would like to encourage you to read the user manual of these commands. You can find the user manual by searching Linux and the name of the command.

This page shows the user manual of the sort command. You can see many additional functions of this command.

If you scroll down to the bottom, there is this “See Also” section. It mentions some closely related commands. For sort, the shuf and uniq commands are closely related. The shuf command shuffle lines in a text file. The uniq command finds unique lines in a text file.

Thank you for watching.

Enjoy Linux!