Linux Command Line

Abdullah Zubaer, University of Manitoba. zubaera@myumanitoba.ca

Knowing the current directory

- Command name: pwd
- Function: print working directory
- Syntax: pwd

Finding users in the system

- Command name: who
- Function: print user names
- Syntax: who

Finding your user name

- Command name: whoami
- Function: print user name of the current user
- Syntax: whoami

Navigating the system

- Command name: cd
- Function: changing directory
- Syntax: cd directory
- Example: cd /lib/gcc/
- Options/variations:
  - cd without mentioning a directory it will go to the default directory
  - cd .. go to the parent directory
  - cd - go to the previous directory

Looking into a directory

- Command name: ls
- Function: listing all files and folder under a directory
- Syntax: ls
- Example: ls /etc
- Options: ls -l, ls -a, ls -la

Creating a folder

- Command name: mkdir
- Function: making a directory
- Syntax: mkdir directory-name
- Example: mkdir my_folder

N.B. Never use space ( ) to name your folder.

Removing a folder

- Command name: rmdir
- Function: delete a directory
- Syntax: rmdir directory-name
- Example: rmdir my_folder
- Comment: it only works if the folder is empty

Creating a file

- Command name: touch
- Function: create a file
- Syntax: touch file-name
- Example: touch my_text_file.txt

N.B. Never use space ( ) to name your file.

Removing a file

- Command name: rm
- Function: remove a file or folder
- Syntax: rm file-name
- Example: rm my_text_file.txt
- Options:
  - rm -r folder

    (this will delete a folder and all of its contents. r for recursive)

Copy a file/folder

- Command name: cp
- Function: copy a file or folder to a desired directory
- Syntax: cp path/file-name destination-path/
- Example: (assuming the user is in the home folder)
  - cp /etc/locale.conf /home/user-name/
  - cp locale.conf ~/Downloads/
  - For copying folder with files, it is required to use -r option

Cut a file/folder

- Command name: mv
- Function: move (=cut&paste) a file or folder to a desired directory
- Syntax: mv path/file-name destination-path/
- Example: (assuming the user is in the home folder)
  - mv locale.conf Desktop

Accessing a file

- Command name: cat
- Function: view a text file (in the terminal)
- Syntax: cat file-name
- Example: cat nucleotide.fasta

Accessing a file

- Command name: less
- Function: view a text file (page by page)
- Syntax: less file-name
- Example: less nucleotide.fasta
- Options/variations:
  - Press q to quit the file view
  - Press space ( ) to see the next page

Accessing a file

- Command name: head
- Function: print first 10 lines of a text file
- Syntax: head file-name
- Example: head nucleotide.fasta
- Options/variations:
  - With -n option the number of line can be specified
  - head -n 20 file-name

Accessing a file

- Command name: tail
- Function: print last 10 lines of a text file
- Syntax: tail file-name
- Example: tail nucleotide.fasta
- Options/variations:
  - With -n option the number of line can be specified
  - tail -n 20 file-name

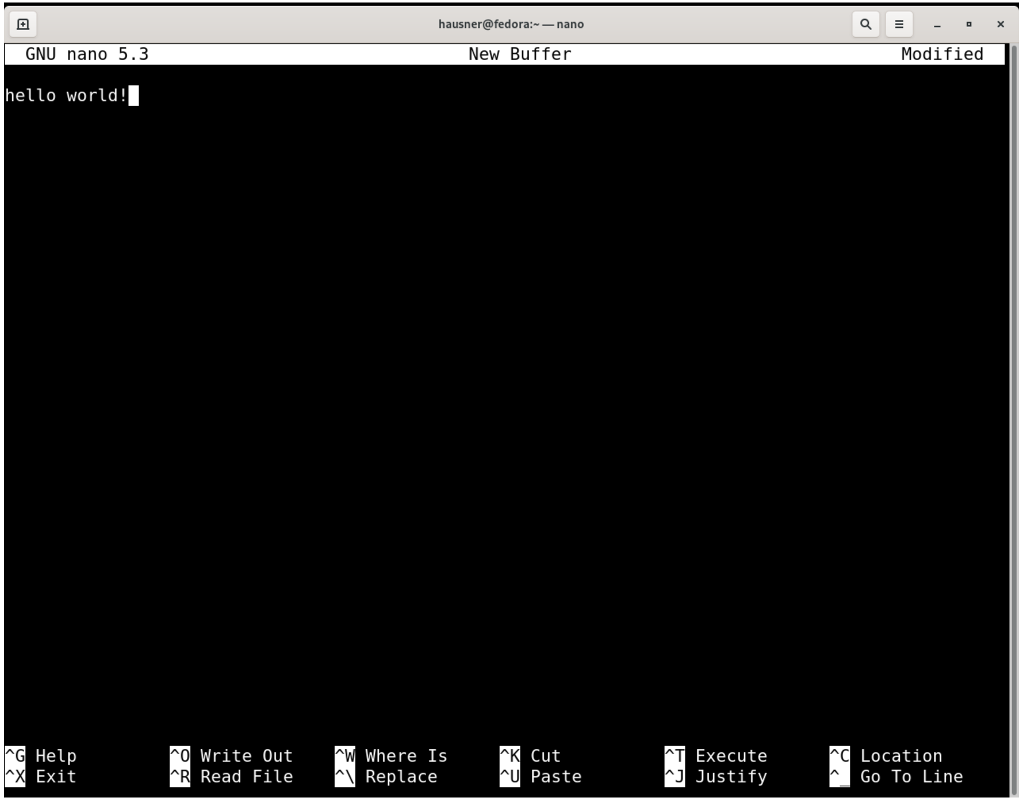
Writing on a file

- Writing on a file can be done by using a text editor or with some commands.
- There are a lot of text editors such as notepad, gedit, geany etc. which are used in GUI
- There are also some text editors for CLI such as emacs, vi, nano etc.
- The commands – cat and echo can be used for writing on a file

Text editor: nano

- Just type nano in the terminal and it will run
- Very user friendly
- Controlling options are given at the bottom of the interface
- Another way to create a file is by typing

  nano file-name



```
 GNU nano 5.3                          New Buffer                          Modified

hello world!
```

```
^G Help          ^O Write Out     ^W Where Is      ^K Cut           ^T Execute       ^C Location
^X Exit          ^R Read File     ^\ Replace       ^U Paste         ^J Justify       ^_ Go To Line
```

Concatenation

- Command name: cat
- Function: concatenate text (or file)
- Syntax: cat > file-name
- Example: cat > nucleotide.fasta
- Options/variations:
  - The command will let the user to write something on the terminal which will be written on the file