

Week Report 5

Answer the following questions:

1. What are Command Options?

Commands are often followed by options that modify/enhance their behavior.

2. What are Command Arguments?

Commands are also followed by arguments which are the items on which the command acts on.

3. Which command is used for creating directories? Provide 3 examples

The command used for creating directories is `mkdir`. To create a directory use this formula: `mkdir + the name of the directory`

Examples:

- `mkdir wallpapers/'cities usa'`: creates a directory with a space in the name
- `mkdir wallpapers/"majora's mask"`: creates a directory with a single quote in the name
- `mkdir wallpapers/cars wallpapers/cities wallpapers/forest`: creates multiple directories

4. What does the touch command do? Provide 3 examples

The touch command is used for creating files.

Examples:

- `touch list`: to create a file called list
- `touch list_of_cars.txt script.py names.csv`: to create several files
- `touch "list of foods.txt"`: to create a file with a space in its name

5. How do you remove a file? Provide an example

The `rm` command is used to remove files.

Examples:

- `rm -i list`: remove a file and prompt confirmation before removal
- `rm -I Downloads/games/*`: remove all the files inside a directory and ask before removing more than 3 files
- `rm list`: remove a file

6. How do you remove a directory and can you remove non-empty directories in Linux? Provide an example

The `rm` by default does not remove directories. To remove a directory use `rm` with the `-r` option. In Linux and other Nix systems you cannot remove non-empty directories. To remove empty directories use the `rmdir` command. To remove non-empty directories use `rm -r + directory name or directory absolute path`.

Examples:

- `rmdir Downloads/games:` remove an empty directory
- `rm -r Downloads/games:` remove a non-empty directory

7. Explain the `mv` and `cp` command. Provide 2 examples of each

`mv` command moves and renames directories. The formula of the `mv` command is: `mv + source + destination`
For renaming files/directories the formula is: `mv + file/directory to rename + new name`

Examples:

- `mv Downloads/homework.pdf Documents/:` to move a file from a directory to another using relative path
- `mv games/ wallpapers/ rockmusic/ /media/student/flashdrive/:` to move multiple directories/files to a different directory
- `mv ~/Downloads/homework.docx ~/Downloads/cis106homework/.docx:` to rename a file using absolute path
- `mv Downloads/cis106homework.docx Documents/new_cis106homework.docx`

`cp` command copies files/directories from a source to a destination. The formula of the `cp` command is: `cp + files to copy + destination`
To copy directories use the `-r` option: `cp -r + directory to copy + destination`

Examples:

- `cp -r ~/Downloads/wallpapers ~/Pictures/:` to copy a directory with absolute path
- `cp Downloads/wallpapers/* ~/Pictures/:` to copy the content of a directory to another directory
- `sudo cp -r script.sh program.py home.html assets/ /var/www/html/:` to copy multiple files in a single command

2. Complete the practices:

- Practice 1

```
siskisijara@CIS106vm: ~  
siskisijara@CIS106vm:~$ mkdir website  
mkdir: cannot create directory 'website': File exists  
siskisijara@CIS106vm:~$ cd website/  
siskisijara@CIS106vm:~/website$ mkdir script assets  
siskisijara@CIS106vm:~/website$ touch index.html  
siskisijara@CIS106vm:~/website$ touch assets/image.png  
siskisijara@CIS106vm:~/website$ touch script/script.js  
siskisijara@CIS106vm:~/website$ tree .  
.  
├── assets  
│   └── image.png  
├── index.html  
├── media  
│   └── png  
├── peru  
├── Peru's Pictures  
├── Peru's Pictures  
├── pictures  
├── Pictures Peru  
├── script  
│   └── script.js  
└── style.css  
  
9 directories, 4 files  
siskisijara@CIS106vm:~/website$ rm script/script.js assests/image.png  
rm: cannot remove 'assests/image.png': No such file or directory  
siskisijara@CIS106vm:~/website$ rm script/script.js assets/image.png  
rm: cannot remove 'script/script.js': No such file or directory  
siskisijara@CIS106vm:~/website$ rmdir script/ assets/  
siskisijara@CIS106vm:~/website$ cd ..  
siskisijara@CIS106vm:~$ rm -r website/  
siskisijara@CIS106vm:~$
```

- Practice 2

```
siskisijara@CIS106vm: /usr/share  
siskisijara@CIS106vm:~$ cd /usr/share/  
siskisijara@CIS106vm:/usr/share$ mkdir ~/website  
siskisijara@CIS106vm:/usr/share$ mkdir -p ~/website/assets/images/small  
siskisijara@CIS106vm:/usr/share$ touch ~/website/assets/images/small/logo.png  
siskisijara@CIS106vm:/usr/share$ rm ~/website/assets/images/small/logo.png  
siskisijara@CIS106vm:/usr/share$ rm -r ~/website/  
siskisijara@CIS106vm:/usr/share$
```

- Practice 3

```
saskisijara@CIS106vm: ~  
saskisijara@CIS106vm:~$ mkdir -p website/assets  
saskisijara@CIS106vm:~$ curl https://cis106.com/assets/samplesite.txt -o ~/website/index.html  
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current  
                                 Dload  Upload   Total   Spent    Left   Speed  
100   372   100   372    0     0    957      0  --:--:-- --:--:-- --:--:--   956  
saskisijara@CIS106vm:~$ mv Downloads/pexels-  
mv: missing destination file operand after 'Downloads/pexels-'  
Try 'mv --help' for more information.  
saskisijara@CIS106vm:~$ mv Download/pexels-  
mv: missing destination file operand after 'Download/pexels-'  
Try 'mv --help' for more information.  
saskisijara@CIS106vm:~$ mv Downloads/pexels-  
mv: missing destination file operand after 'Downloads/pexels-'  
Try 'mv --help' for more information.  
saskisijara@CIS106vm:~$ mv Downloads/pexels-/  
mv: missing destination file operand after 'Downloads/pexels-/'  
Try 'mv --help' for more information.  
saskisijara@CIS106vm:~$ mv Downloads/pexels-anna-shvets-4588065.jpg website/assets/  
saskisijara@CIS106vm:~$ mv Downloads/pexels-piya-nimityongskul-2883510.jpg website/assets/  
saskisijara@CIS106vm:~$ mv website/assets/pexels-anna-shvets-4588065.jpg website/assets/image.png  
saskisijara@CIS106vm:~$ mv website/assets/pexels-piya-nimityongskul-2883510.jpg website/assets/image2.png  
saskisijara@CIS106vm:~$ xdg-open website/index.html  
saskisijara@CIS106vm:~$
```

- Practice 4

```
saskisijara@CIS106vm: ~  
saskisijara@CIS106vm:~$ mkdir website/docs  
mkdir: cannot create directory 'website/docs': File exists  
saskisijara@CIS106vm:~$ cp Downloads/sample  
cp: missing destination file operand after 'Downloads/sample'  
Try 'cp --help' for more information.  
saskisijara@CIS106vm:~$ cp Downloads/sample1.doc website/docs/  
saskisijara@CIS106vm:~$ cp Downloads/sample1.xls website/docs/  
saskisijara@CIS106vm:~$ cp Downloads/sample1.pdf website/docs/  
saskisijara@CIS106vm:~$ tree website/  
website/  
├── assets  
│   ├── image2.png  
│   └── image.png  
├── docs  
│   ├── sample1.doc  
│   ├── sample1.pdf  
│   └── sample1.xls  
└── index.html  
  
2 directories, 6 files  
saskisijara@CIS106vm:~$
```