

# Week Report 5

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## 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:~$
```