```
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course: cis 106
semester: spring 23
```

WeekReport5

1. **What are Command Options?**

   Command options are extra settings or modifications you can add to a command to change its behavior. They usually start with a hyphen (-) and are used to customize how a command operates. For example, in the command `ls -l`, the `-l` is an option that tells the `ls` command to display detailed information about files.

2. **What are Command Arguments?**

   Command arguments are the inputs you provide to a command to specify what it should operate on or how it should perform a task. For instance, in the command `cp file1.txt folder/`, `file1.txt` and `folder/` are arguments. They tell the `cp` command which file to copy and where to copy it.

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

   The `mkdir` command is used for creating directories. Here are three examples:

   - Create a directory named "photos": `mkdir data`
   - Create multiple directories named "cis116," "cis202," and "cis212": `mkdir cis116 cis202 cis212`
   - Create a parent directory named "projects" with a subdirectory named "documents": `mkdir -p projects/documents`

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

   The `touch` command is used to create empty files or update the access and modification timestamps of existing files. Here are three examples:

   - Create a new empty file named "notes.txt": `touch notes.txt`
   - Update the timestamp of an existing file named "file1.txt": `touch file1.txt`
   - Create multiple empty files named "file1," "file2," and "file3": `touch file1 file2 file3`

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

   The `rm` command is used to remove files. For example, to remove a file named "example.txt," you would use:

   ```
   rm example.txt
   ```

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

To remove an empty directory, you can use the `rmdir` command. To remove a non-empty directory, you use the `rm` command with the `-r` option. For example:

- Remove an empty directory named "cis116": `cis116`
- Remove a non-empty directory named "cis202" and its contents: `cis202`

7. **Explain the mv and cp command. Provide at least 2 examples of each.**

- The `mv` command is used to move or rename files and directories. Examples:

  - Move a file named "data.txt" to a directory named "documents": `mv data.txt documents/`
  - Rename a directory from "data" to "newdata": `mv data newdata`

- The `cp` command is used to copy files and directories. Examples:

  - Copy a file named "image.jpg" to pictures folder: `cp image.jpg /pictures`
  - Copy a directory named "root" and its contents to a new location: `cp -r root/ newlocation/`

Practices:

Practice 1:

```
svpatel@ubuntucis106:~$ mkdir website
svpatel@ubuntucis106:~$ cd website/
svpatel@ubuntucis106:~/website$ mkdir scripts assets
svpatel@ubuntucis106:~/website$ touch index.html
svpatel@ubuntucis106:~/website$ touch assets/image.png
svpatel@ubuntucis106:~/website$ touch scripts/script.js
svpatel@ubuntucis106:~/website$ tree .
.
├── assets
│   └── image.png
├── index.html
└── scripts
    └── script.js

2 directories, 3 files
svpatel@ubuntucis106:~/website$ rm scripts/script.js assets/image.png
svpatel@ubuntucis106:~/website$ cd ..
svpatel@ubuntucis106:~$ rm -r website/
svpatel@ubuntucis106:~$ _
```
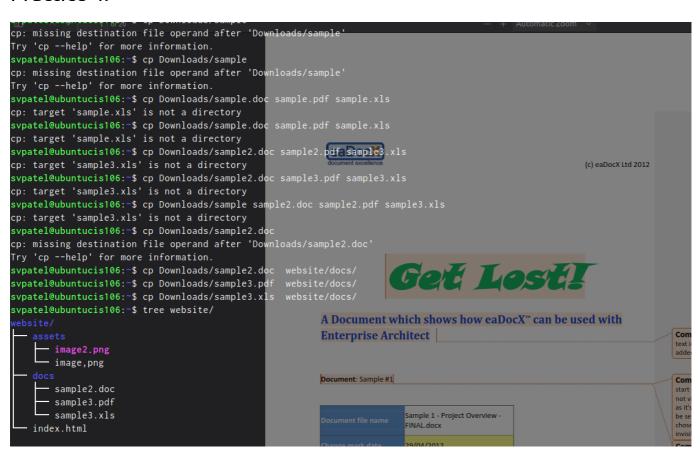
Practice 2:

```
svpatel@ubuntucis106:~$ cd /usr/share/
svpatel@ubuntucis106:/usr/share$ mkdir ~/website
svpatel@ubuntucis106:/usr/share$ mkdir -p ~/website/assets/images/small
svpatel@ubuntucis106:/usr/share$ touch ~/website/assets/images/small/logo.png
svpatel@ubuntucis106:/usr/share$ rm ~/website/assets/images/small/logo.png
rm: cannot remove '/home/svpatel/website/assets/images/small/logo.png': No such file or directory
svpatel@ubuntucis106:/usr/share$ touch ~/website/assets/images/small/logo.png
svpatel@ubuntucis106:/usr/share$ rm ~/website/assets/images/small/logo.png
svpatel@ubuntucis106:/usr/share$ em -r ~/website/
em: command not found
svpatel@ubuntucis106:/usr/share$ rm -r ~/website/
svpatel@ubuntucis106:/usr/share$ _
```

Practice 3:

```
svpatel@ubuntucis106:~$ mkdir -p website/assets
svpatel@ubuntucis106:~$ 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   1298      0 --:--:-- --:--:-- --:--:--  1300
svpatel@ubuntucis106:~$ mv Downloads/visual6.jpeg website/assets/
svpatel@ubuntucis106:~$ mv Downloads/visual7.jpeg website/assets/
svpatel@ubuntucis106:~$ mv website/assets/visual6.jpeg website/assets/image.png
svpatel@ubuntucis106:~$ mv website/assets/visual7.jpeg website/assets/image2.png
svpatel@ubuntucis106: ~$ mv website/assets/visual6.jpeg website/assets/image.png
mv: cannot stat 'website/assets/visual6.jpeg': No such file or directory
svpatel@ubuntucis106: $ xdg-open website/index.html
gio: file:///home/svpatel/website/index,html: Error when getting information for file "/home/svpatel/website/index,html": No such file or directory
svpatel@ubuntucis106:~$ xdg-open website/index.html
svpatel@ubuntucis106: $ Gtk-Message: 00:00:36.747: Failed to load module "xapp-gtk3-module"
Gtk-Message: 00:00:36.75 : Not loading module "atk-bridge": The functionality is provided by GTK natively. Please try to not load it.

(firefox:11978): Gtk-WARNING **: 00:00:37.252: GTK+ module /snap/firefox/3358/gnome-platform/usr/lib/gtk-2.0/modules/libcanberra-gtk-module.so cannot be loaded.
GTK+ 2.x symbols detected. Using GTK+ 2.x and GTK+ 3 in the same process is not supported.
Gtk-Message: 00:00:37.25 : Failed to load module "canberra-gtk-module"

(firefox:11978): Gtk-WARNING **: 00:00:37.268: GTK+ module /snap/firefox/3358/gnome-platform/usr/lib/gtk-2.0/modules/libcanberra-gtk-module.so cannot be loaded.
GTK+ 2.x symbols detected. Using GTK+ 2.x and GTK+ 3 in the same process is not supported.
Gtk-Message: 00:00:37.28 : Failed to load module "canberra-gtk-module"
svpatel@ubuntucis106:~$ _
```

Practice 4:

```
cp: missing destination file operand after 'Downloads/sample'
Try 'cp --help' for more information.
svpatel@ubuntucis106:~$ cp Downloads/sample
cp: missing destination file operand after 'Downloads/sample'
Try 'cp --help' for more information.
svpatel@ubuntucis106:~$ cp Downloads/sample.doc sample.pdf sample.xls
cp: target 'sample.xls' is not a directory
svpatel@ubuntucis106:~$ cp Downloads/sample.doc sample.pdf sample.xls
cp: target 'sample.xls' is not a directory
svpatel@ubuntucis106:~$ cp Downloads/sample2.doc sample2.pdf sample3.xls
cp: target 'sample3.xls' is not a directory
svpatel@ubuntucis106:~$ cp Downloads/sample2.doc sample3.pdf sample3.xls
cp: target 'sample3.xls' is not a directory
svpatel@ubuntucis106:~$ cp Downloads/sample sample2.doc sample2.pdf sample3.xls
cp: target 'sample3.xls' is not a directory
svpatel@ubuntucis106:~$ cp Downloads/sample2.doc
cp: missing destination file operand after 'Downloads/sample2.doc'
Try 'cp --help' for more information.
svpatel@ubuntucis106:~$ cp Downloads/sample2.doc  website/docs/
svpatel@ubuntucis106:~$ cp Downloads/sample3.pdf  website/docs/
svpatel@ubuntucis106:~$ cp Downloads/sample3.xls  website/docs/
svpatel@ubuntucis106:~$ tree website/
website/
├── assets
│   ├── image2.png
│   └── image,png
├── docs
│   ├── sample2.doc
│   ├── sample3.pdf
│   └── sample3.xls
└── index.html
```

Completed