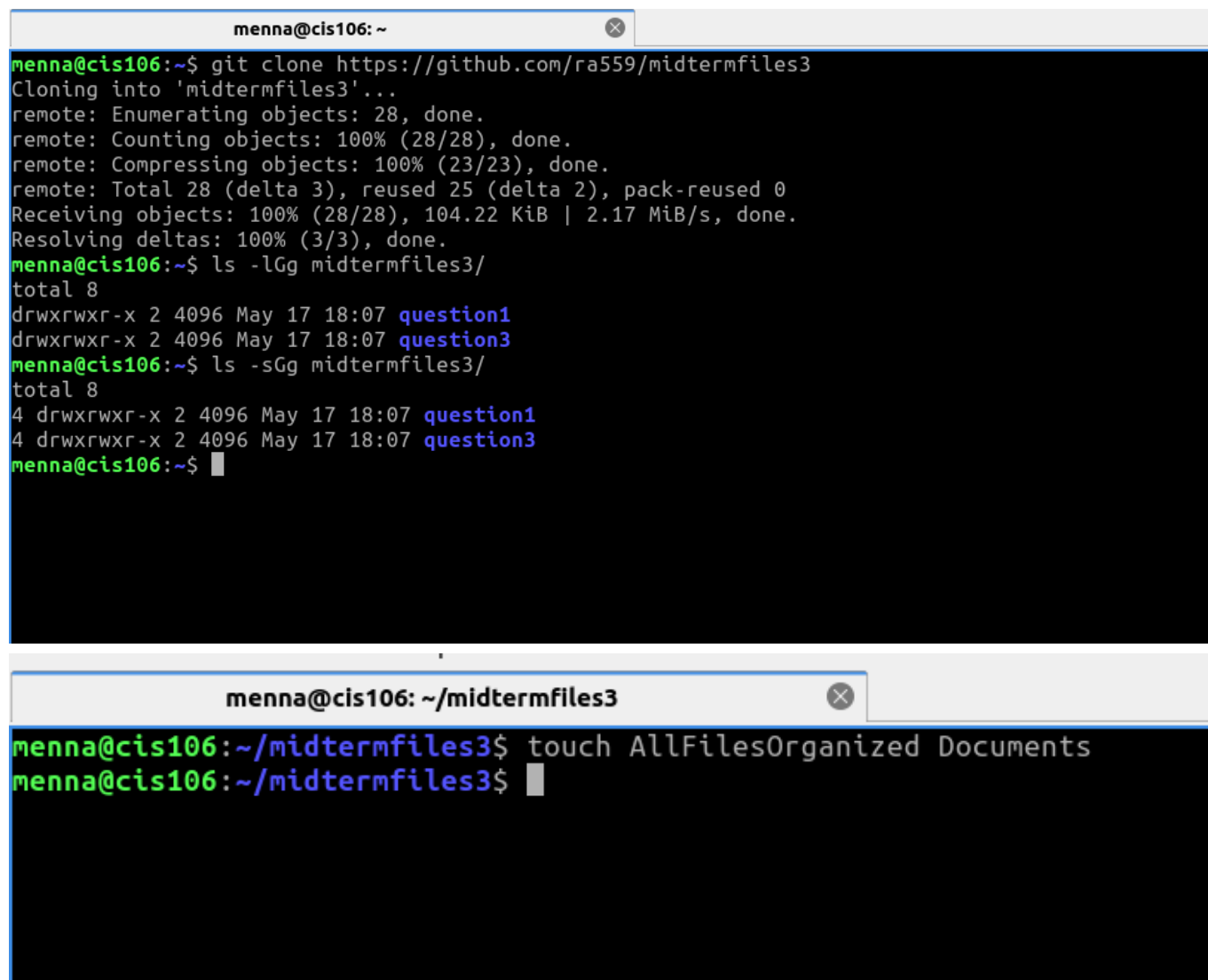


# Final Exam Submission

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## Q1

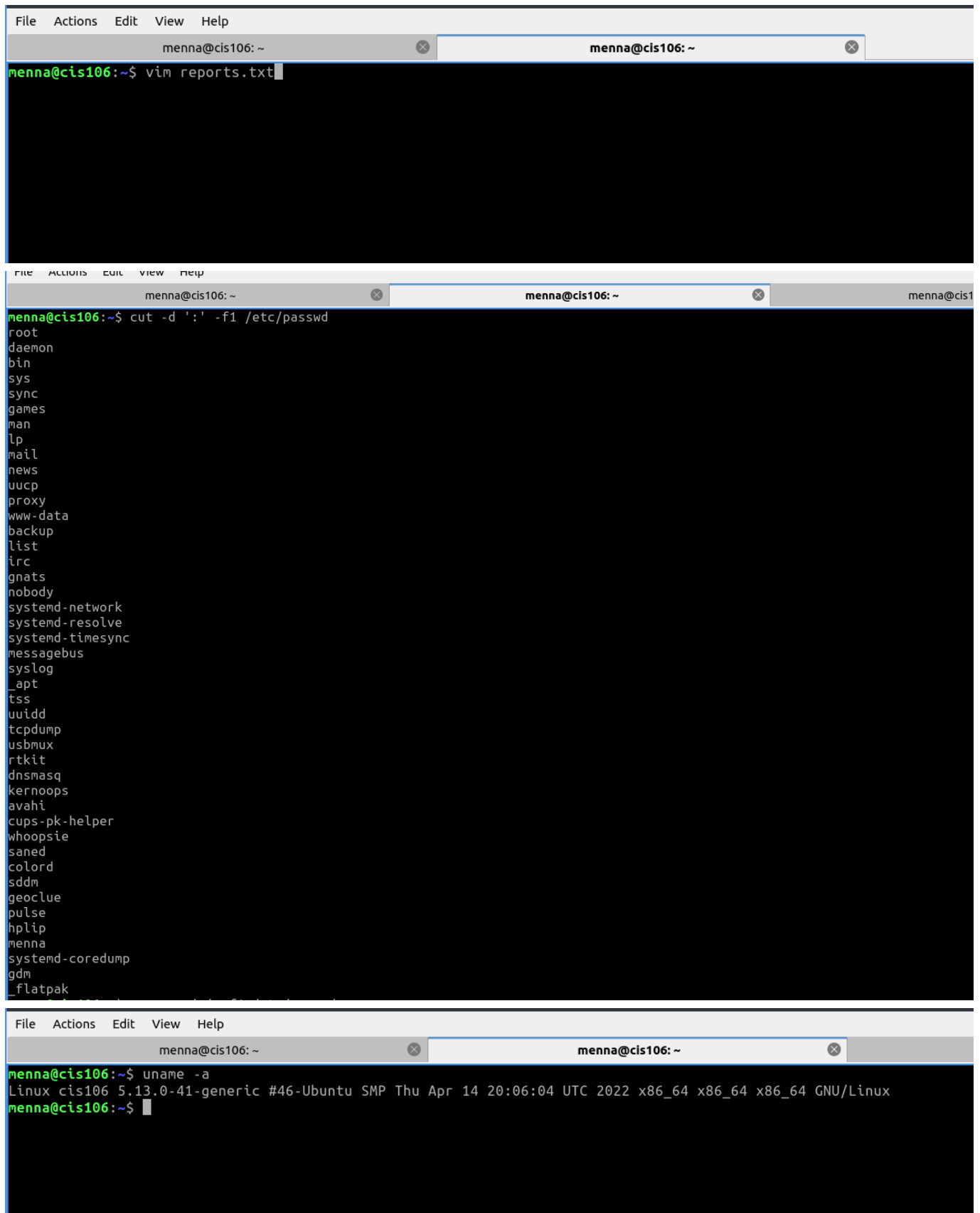


```
menna@cis106: ~  
menna@cis106:~$ git clone https://github.com/ra559/midtermfiles3  
Cloning into 'midtermfiles3'...  
remote: Enumerating objects: 28, done.  
remote: Counting objects: 100% (28/28), done.  
remote: Compressing objects: 100% (23/23), done.  
remote: Total 28 (delta 3), reused 25 (delta 2), pack-reused 0  
Receiving objects: 100% (28/28), 104.22 KiB | 2.17 MiB/s, done.  
Resolving deltas: 100% (3/3), done.  
menna@cis106:~$ ls -lGg midtermfiles3/  
total 8  
drwxrwxr-x 2 4096 May 17 18:07 question1  
drwxrwxr-x 2 4096 May 17 18:07 question3  
menna@cis106:~$ ls -sGg midtermfiles3/  
total 8  
4 drwxrwxr-x 2 4096 May 17 18:07 question1  
4 drwxrwxr-x 2 4096 May 17 18:07 question3  
menna@cis106:~$  
  
menna@cis106: ~/midtermfiles3  
menna@cis106:~/midtermfiles3$ touch AllFilesOrganized Documents  
menna@cis106:~/midtermfiles3$
```

```
menna@cis106: ~/midtermfiles3/question1
menna@cis106:~/midtermfiles3/question1$ ls -lgG
total 188
-rw-rw-r-- 1 512 May 17 18:07 about.html
-rw-rw-r-- 1 20746 May 17 18:07 accounts.ods
-rw-rw-r-- 1 551 May 17 18:07 basicInfo.txt
-rw-rw-r-- 1 512 May 17 18:07 contact.html
-rw-rw-r-- 1 41 May 17 18:07 hello.py
-rw-rw-r-- 1 36 May 17 18:07 hello.rb
-rw-rw-r-- 1 32 May 17 18:07 hello.sh
-rw-rw-r-- 1 512 May 17 18:07 index.html
-rw-rw-r-- 1 10139 May 17 18:07 linux.docx
-rw-rw-r-- 1 16067 May 17 18:07 linux.pdf
-rw-rw-r-- 1 609 May 17 18:07 linux.txt
-rw-rw-r-- 1 10319 May 17 18:07 macos.docx
-rw-rw-r-- 1 3997 May 17 18:07 MacOS_logo.svg
-rw-rw-r-- 1 18931 May 17 18:07 macos.pdf
-rw-rw-r-- 1 978 May 17 18:07 macos.txt
-rw-rw-r-- 1 699 May 17 18:07 Ubuntu-logo.svg
-rw-rw-r-- 1 20143 May 17 18:07 users-data.ods
-rw-rw-r-- 1 10203 May 17 18:07 windows.docx
-rw-rw-r-- 1 486 May 17 18:07 Windows_logo.svg
-rw-rw-r-- 1 17199 May 17 18:07 windows.pdf
-rw-rw-r-- 1 866 May 17 18:07 windows.txt
menna@cis106:~/midtermfiles3/question1$

menna@cis106: ~/midtermfiles3/question1
menna@cis106:~/midtermfiles3/question1$ ls -lgG | grep .pdf
-rw-rw-r-- 1 16067 May 17 18:07 linux.pdf
-rw-rw-r-- 1 18931 May 17 18:07 macos.pdf
-rw-rw-r-- 1 17199 May 17 18:07 windows.pdf
menna@cis106:~/midtermfiles3/question1$ ls -lgG | grep .html
-rw-rw-r-- 1 512 May 17 18:07 about.html
-rw-rw-r-- 1 512 May 17 18:07 contact.html
-rw-rw-r-- 1 512 May 17 18:07 index.html
menna@cis106:~/midtermfiles3/question1$
```

Q2



The image displays three sequential screenshots of a terminal window, likely a virtual machine named 'cis106'. The window has a menu bar with 'File', 'Actions', 'Edit', 'View', and 'Help'. The terminal shows the user 'menna' at the prompt 'menna@cis106: ~'.

**First Screenshot:** The user has executed the command `vim reports.txt`. The terminal shows the command prompt and the command being entered.

**Second Screenshot:** The user has executed the command `cut -d ':' -f1 /etc/passwd`. The terminal displays the output, which is a list of usernames from the `/etc/passwd` file, including `root`, `daemon`, `bin`, `sys`, `sync`, `games`, `man`, `lp`, `mail`, `news`, `uucp`, `proxy`, `www-data`, `backup`, `list`, `irc`, `gnats`, `nobody`, `systemd-network`, `systemd-resolve`, `systemd-timesync`, `messagebus`, `syslog`, `_apt`, `tss`, `uidd`, `tcpdump`, `usbmux`, `rtkit`, `dnsmasq`, `kernoops`, `avahi`, `cups-pk-helper`, `whoopsie`, `saned`, `colord`, `sddm`, `geoclue`, `pulse`, `hplip`, `menna`, `systemd-coredump`, `gdm`, and `_flatpak`.

**Third Screenshot:** The user has executed the command `uname -a`. The terminal displays the system information: `Linux cis106 5.13.0-41-generic #46-Ubuntu SMP Thu Apr 14 20:06:04 UTC 2022 x86_64 x86_64 x86_64 GNU/Linux`.

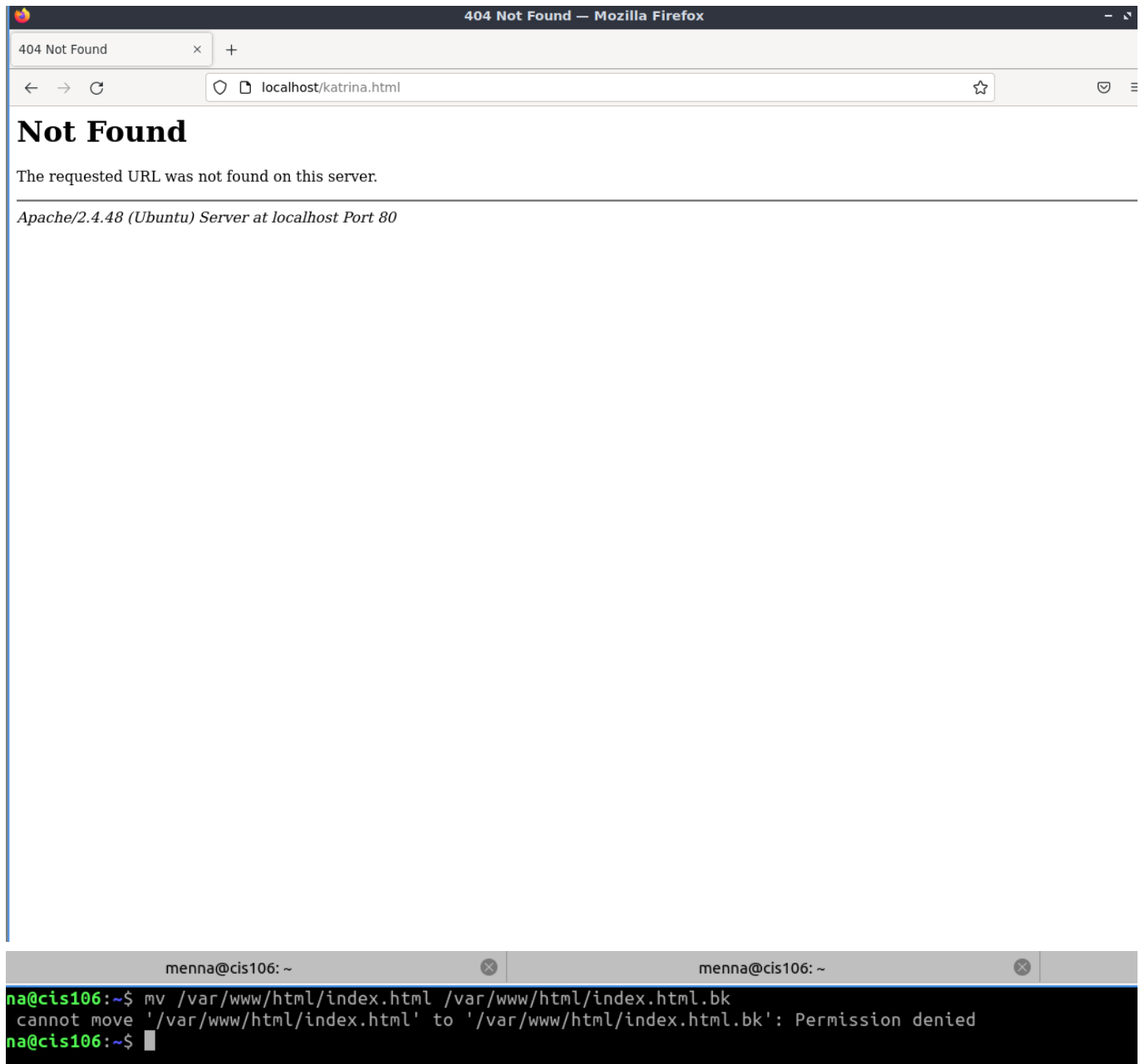
Q3

```
menna@cis106: ~
menna@cis106:~$ mkdir spring22/
menna@cis106:~/spring22$ mkdir en102 cis180 cis106
menna@cis106:~/spring22$ ls
cis106  cis180  en102
menna@cis106:~/spring22$ cd
menna@cis106:~$ mv ~/midtermfiles3/question3/comp2syllabus.pdf spring22/en102/
menna@cis106:~$ mv ~/midtermfiles3/question3/linuxhwm.pdf midtermfiles3/question3/linuxnotes.pdf spring22/cis106
menna@cis106:~$ mv ~/midtermfiles3/question3/networkinghwm.pdf midtermfiles3/question3/networkingnotes.pdf spring/cis180
mv: target 'spring/cis180' is not a directory
menna@cis106:~$ mv ~/midtermfiles3/question3/networkinghwm.pdf midtermfiles3/question3/networkingnotes.pdf spring22/cis180
menna@cis106:~$ tree spring22/
spring22/
├── cis106
│   ├── linuxhwm.pdf
│   └── linuxnotes.pdf
├── cis180
│   ├── networkinghwm.pdf
│   └── networkingnotes.pdf
└── en102
    └── comp2syllabus.pdf

3 directories, 5 files
menna@cis106:~$ mv ~/midtermfiles3/question3/Linuxbook.pdf spring22/cis106
menna@cis106:~$ mv ~/midtermfiles3/question3/networkingbook.pdf spring22/cis180
menna@cis106:~$ tree spring22/
spring22/
├── cis106
│   ├── Linuxbook.pdf
│   ├── linuxhwm.pdf
│   └── linuxnotes.pdf
├── cis180
│   ├── networkingbook.pdf
│   ├── networkinghwm.pdf
│   └── networkingnotes.pdf
└── en102
    └── comp2syllabus.pdf

3 directories, 7 files
menna@cis106:~$
```

```
menna@cis106:~$ tree -H spring22/
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<meta name="Author" content="Made by 'tree'">
<meta name="GENERATOR" content="$Version: $ tree v1.8.0 (c) 1996 - 2018 by Steve Baker, Thomas Moore, Francesc Rocher, Florian Sesser, Kyosuke Tokoro $">
<title>Directory Tree</title>
<style type="text/css">
<!--
BODY { font-family : arial, monospace, sans-serif; }
P { font-weight: normal; font-family : arial, monospace, sans-serif; color: black; background-color: transparent; }
B { font-weight: normal; color: black; background-color: transparent; }
A:visited { font-weight : normal; text-decoration : none; background-color : transparent; margin : 0px 0px 0px 0px; padding : 0px 0px 0px 0px; display: inline; }
A:link { font-weight : normal; text-decoration : none; margin : 0px 0px 0px 0px; padding : 0px 0px 0px 0px; display: inline; }
A:hover { color : #000000; font-weight : normal; text-decoration : underline; background-color : yellow; margin : 0px 0px 0px 0px; padding : 0px 0px 0px 0px; display: inline; }
A:active { color : #000000; font-weight: normal; background-color : transparent; margin : 0px 0px 0px 0px; padding : 0px 0px 0px 0px; display: inline; }
.VERSION { font-size: small; font-family : arial, sans-serif; }
.NORM { color: black; background-color: transparent; }
.FIFO { color: purple; background-color: transparent; }
.CHAR { color: yellow; background-color: transparent; }
.DIR { color: blue; background-color: transparent; }
.BLOCK { color: yellow; background-color: transparent; }
.LINK { color: aqua; background-color: transparent; }
.SOCK { color: fuchsia; background-color: transparent; }
.EXEC { color: green; background-color: transparent; }
-->
</style>
</head>
<body>
<h1>Directory Tree</h1><p>
<a href="spring22/">spring22/</a><br>
<a href="spring22//challenge-Lab6/">challenge-Lab6/</a><br>
<a href="spring22//challenge-Lab6/audio/">audio/</a><br>
<a href="spring22//challenge-Lab6/audio/aac/">aac/</a><br>
<a href="spring22//challenge-Lab6/audio/aac/song1.aac">song1.aac</a><br>
<a href="spring22//challenge-Lab6/audio/aac/song2.aac">song2.aac</a><br>
<a href="spring22//challenge-Lab6/audio/aac/song3.aac">song3.aac</a><br>
<a href="spring22//challenge-Lab6/audio/mp3/">mp3/</a><br>
<a href="spring22//challenge-Lab6/audio/mp3/song1.mp3">song1.mp3</a><br>
<a href="spring22//challenge-Lab6/audio/mp3/song2.mp3">song2.mp3</a><br>
<a href="spring22//challenge-Lab6/audio/mp3/song3.mp3">song3.mp3</a><br>
<a href="spring22//challenge-Lab6/docs/">docs/</a><br>
<a href="spring22//challenge-Lab6/docs/docx/">docx/</a><br>
<a href="spring22//challenge-Lab6/docs/docx/docs1.docx">docs1.docx</a><br>
<a href="spring22//challenge-Lab6/docs/docx/docs1.docx">docs1.docx</a><br>
<a href="spring22//challenge-Lab6/docs/docx/docs2.docx">docs2.docx</a><br>
<a href="spring22//challenge-Lab6/docs/docx/docs2.docx">docs2.docx</a><br>
<a href="spring22//challenge-Lab6/docs/docx/docs3.docx">docs3.docx</a><br>
<a href="spring22//challenge-Lab6/docs/docx/docs3.docx">docs3.docx</a><br>
<a href="spring22//challenge-Lab6/docs/pdf/">pdf/</a><br>
</p>
</body>
```



Q4

```
menna@cis106: ~  
menna@cis106:~$ ls ~/midtermfiles3/question1/MacOS_logo.svg  
/home/menna/midtermfiles3/question1/MacOS_logo.svg  
menna@cis106:~$  
  
File Actions Edit View Help  
menna@cis106: ~  
menna@cis106:~$ ls -i ~/midtermfiles3/question1/MacOS_logo.svg  
1233363 /home/menna/midtermfiles3/question1/MacOS_logo.svg  
menna@cis106:~$  
  
File Actions Edit View Help  
menna@cis106: ~ menna@cis106: ~  
menna@cis106:~$ mv ~/midtermfiles3/question1/MacOS_logo.svg /usr/share/backgrounds/  
mv: cannot move '/home/menna/midtermfiles3/question1/MacOS_logo.svg' to '/usr/share/backgrounds/MacOS_logo.svg':  
cannot move  
menna@cis106:~$  
menna@cis106:~$ ls -ls ~/midtermfiles3/question1/  
total 188  
24 accounts.ods 20 macos.pdf 16 linux.pdf 12 windows.docx 4 MacOS_logo.svg 4 windows.txt 4 linux.txt 4 about.html 4 index.html 4 hello.py 4 hello.sh  
20 users-data.ods 20 windows.pdf 12 macos.docx 12 linux.docx 4 macos.txt 4 Ubuntu-logo.svg 4 basicInfo.txt 4 contact.html 4 Windows_logo.svg 4 hello.rb  
menna@cis106:~$  
  
menna@cis106: ~ menna@cis106: ~  
menna@cis106:~$ cat ~/midtermfiles3/question1  
cat: /home/menna/midtermfiles3/question1: Is a directory  
menna@cis106:~$
```