

# Q1

---

1.)

```
student@Cis106vm:~/Documents/midtermfiles3/question1$ ls -lgGh --full-time
total 184K
-rw-rw-r-- 1 512 2022-05-17 18:01:32.424314000 -0400 about.html
-rw-rw-r-- 1 21K 2022-05-17 18:01:32.424314000 -0400 accounts.ods
-rw-rw-r-- 1 551 2022-05-17 18:01:32.424314000 -0400 basicInfo.txt
-rw-rw-r-- 1 512 2022-05-17 18:01:32.424314000 -0400 contact.html
-rw-rw-r-- 1 41 2022-05-17 18:01:32.424314000 -0400 hello.py
-rw-rw-r-- 1 36 2022-05-17 18:01:32.424314000 -0400 hello.rb
-rw-rw-r-- 1 32 2022-05-17 18:01:32.424314000 -0400 hello.sh
-rw-rw-r-- 1 512 2022-05-17 18:01:32.424314000 -0400 index.html
-rw-rw-r-- 1 10K 2022-05-17 18:01:32.424314000 -0400 linux.docx
-rw-rw-r-- 1 16K 2022-05-17 18:01:32.424314000 -0400 linux.pdf
-rw-rw-r-- 1 609 2022-05-17 18:01:32.424314000 -0400 linux.txt
-rw-rw-r-- 1 11K 2022-05-17 18:01:32.424314000 -0400 macos.docx
-rw-rw-r-- 1 4.0K 2022-05-17 18:01:32.424314000 -0400 MacOS_logo.svg
-rw-rw-r-- 1 19K 2022-05-17 18:01:32.424314000 -0400 macos.pdf
-rw-rw-r-- 1 978 2022-05-17 18:01:32.424314000 -0400 macos.txt
-rw-rw-r-- 1 699 2022-05-17 18:01:32.424314000 -0400 Ubuntu_logo.svg
-rw-rw-r-- 1 20K 2022-05-17 18:01:32.428316000 -0400 users-data.ods
-rw-rw-r-- 1 10K 2022-05-17 18:01:32.428316000 -0400 windows.docx
-rw-rw-r-- 1 17K 2022-05-17 18:01:32.428316000 -0400 windows.pdf
-rw-rw-r-- 1 866 2022-05-17 18:01:32.428316000 -0400 windows.txt
student@Cis106vm:~/Documents/midtermfiles3/question1$
```

2.)

```
# All Files Organized
## Documents
```

3.)

```
student@Cis106vm:~/Documents/midtermfiles3/question1$ ls -lgGh --full-time ~ > file.md
student@Cis106vm:~/Documents/midtermfiles3/question1$
```

4.)

```
student@Cis106vm:~/Documents/midtermfiles3/question1$ ls -lgH --full-time ~ > file.md
student@Cis106vm:~/Documents/midtermfiles3/question1$ ls -lgH --full-time *.pdf ~ > file.md
student@Cis106vm:~/Documents/midtermfiles3/question1$ ls -lgH --full-time *.html ~ > file.md
student@Cis106vm:~/Documents/midtermfiles3/question1$
```

Q2

Q3

1.)

```
student@Cis106vm:~/Documents$ mkdir -p fall22/{cis106,cis180,En102}/{hmw,material/books,notes}
student@Cis106vm:~/Documents$ tree fall22
fall22
├── cis106
│   ├── hmw
│   ├── material
│   │   └── books
│   └── notes
├── cis180
│   ├── hmw
│   ├── material
│   │   └── books
│   └── notes
└── En102
    ├── hmw
    ├── material
    │   └── books
    └── notes

15 directories, 0 files
student@Cis106vm:~/Documents$
```

2.)

```
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv comp2syllabus.pdf ~/Documents/fall22/En102/material/
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv Linuxbook.pdf ~/Documents/fall22/cis106/material/books/
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv linuxhmw.pdf ~/Documents/fall22/cis106/hmw/
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv linuxnotes.pdf ~/Documents/fall22/cis106/notes/
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv networkingbook.pdf ~/Documents/fall22/cis180/material/books/
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv networkinghamw.pdf ~/Documents/fall22/cis180/hmw/
student@Cis106vm:~/Documents/midtermfiles3/question3$ mv networkingnotes.pdf ~/Documents/fall22/cis180/notes/
```

3.)

```
student@Cis106vm:~/Documents$ tree fall22/
fall22/
├── cis106
│   ├── hmw
│   │   ├── linuxhmw.pdf
│   │   └── material
│   │       ├── books
│   │       │   └── Linuxbook.pdf
│   │       └── notes
│   │           └── linuxnotes.pdf
│   ├── cis180
│   │   ├── hmw
│   │   │   └── networkinghamw.pdf
│   │   ├── material
│   │   │   ├── books
│   │   │   │   └── networkingbook.pdf
│   │   └── notes
│   │       └── networkingnotes.pdf
│   └── En102
│       ├── hmw
│       ├── material
│       │   ├── books
│       │   │   └── comp2syllabus.pdf
│       └── notes
└── 15 directories, 7 files
```

4.)

```

student@Cis106vm:~/Documents/fall22$ tree -H ~ > katrina.html
student@Cis106vm:~/Documents/fall22$ tree
.
├── cis106
│   ├── hmw
│   │   └── linuxhwmw.pdf
│   ├── material
│   │   └── books
│   │       └── linuxbook.pdf
│   └── notes
│       └── linuxnotes.pdf
├── cis180
│   ├── hmw
│   │   └── networkinhmww.pdf
│   ├── material
│   │   └── books
│   │       └── networkingbook.pdf
│   └── notes
│       └── networkingnotes.pdf
├── En102
│   ├── hmw
│   ├── material
│   │   └── books
│   │       └── comp2syllabus.pdf
│   └── notes
└── katrina.html

15 directories, 8 files
student@Cis106vm:~/Documents/fall22$

```

5.)

```

student@Cis106vm:~$ sudo apt install apache2
[sudo] password for student:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libgc1c2 libgnome-games-support-1.3 libgnome-games-support-common libqqwing2v5
  linux-image-5.13.0-30-generic linux-modules-5.13.0-30-generic linux-modules-extra-5.13.0-30-generic python3-systemd
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap
0 upgraded, 8 newly installed, 0 to remove and 82 not upgraded.
Need to get 1,715 kB of archives.
After this operation, 7,504 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libapr1 amd64 1.6.5-1ubuntu1 [91.4 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libaprutil1 amd64 1.6.1-4ubuntu2 [84.7 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.1-4ubuntu2 [10.5 kB]
Get:4 http://us.archive.ubuntu.com/ubuntu focal/main amd64 libaprutil1-ldap amd64 1.6.1-4ubuntu2 [8,736 B]
Get:5 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-bin amd64 2.4.41-4ubuntu3.10 [1,181 kB]
Get:6 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-data all 2.4.41-4ubuntu3.10 [158 kB]
Get:7 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-utils amd64 2.4.41-4ubuntu3.10 [84.5 kB]
Get:8 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2 amd64 2.4.41-4ubuntu3.10 [95.5 kB]
Fetched 1,715 kB in 1s (2,005 kB/s)
Selecting previously unselected package libapr1:amd64.
(Reading database ... 275345 files and directories currently installed.)
Preparing to unpack .../0-libapr1_1.6.5-1ubuntu1_amd64.deb ...
Unpacking libapr1:amd64 (1.6.5-1ubuntu1) ...
Selecting previously unselected package libaprutil1:amd64.
Preparing to unpack .../1-libaprutil1_1.6.1-4ubuntu2_amd64.deb ...
Unpacking libaprutil1:amd64 (1.6.1-4ubuntu2) ...
Selecting previously unselected package libaprutil1-dbd-sqlite3:amd64.
Preparing to unpack .../2-libaprutil1-dbd-sqlite3_1.6.1-4ubuntu2_amd64.deb ...
Unpacking libaprutil1-dbd-sqlite3:amd64 (1.6.1-4ubuntu2) ...

```

6.)

```

student@Cis106vm:~$ cd /var/www/html/
student@Cis106vm:/var/www/html$ mv index.html /var/www/html/index.html.bk
mv: cannot move 'index.html' to '/var/www/html/index.html.bk': Permission denied
student@Cis106vm:/var/www/html$ sudo mv index.html /var/www/html/index.html.bk
student@Cis106vm:/var/www/html$

```

7.)

```
student@Cis106vm:/var/www/html$ cd
student@Cis106vm:~$ cd Documents/fall22/
student@Cis106vm:~/Documents/fall22$ sudo mv katrina.html /var/www/html/
student@Cis106vm:~/Documents/fall22$
```

8.)

## Directory Tree

```
/home/student
├── cis106
│   ├── hmw
│   │   └── linuxhmw.pdf
│   ├── material
│   │   └── books
│   │       └── Linuxbook.pdf
│   └── notes
│       └── linuxnotes.pdf
├── cis180
│   ├── hmw
│   │   └── networkinhmw.pdf
│   ├── material
│   │   └── books
│   │       └── networkingbook.pdf
│   └── notes
│       └── networkingnotes.pdf
├── En102
│   ├── hmw
│   ├── material
│   │   ├── books
│   │   └── comp2syllabus.pdf
│   └── notes
└── katrina.html
```

15 directories, 8 files

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tree v1.8.0 © 1996 - 2018 by Steve Baker and Thomas Moore  
HTML output hacked and copyleft © 1998 by Francesc Rocher  
JSON output hacked and copyleft © 2014 by Florian Sesser  
Charsets / OS/2 support © 2001 by Kyosuke Tokoro

## Q4

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1.) ~/Documents/midtermfiles3/question1/Windows\_logo.svg

1.) Inode: 3146138

```
student@Cis106vm: ~/midtermfiles3/question1
student@Cis106vm:~$ cd ~/midtermfiles3/question1/
student@Cis106vm:~/midtermfiles3/question1$ stat Windows_logo.svg
  File: Windows_logo.svg
  Size: 486          Blocks: 8          IO Block: 4096   regular file
Device: 805h/2053d  Inode: 3146138       Links: 1
Access: (0664/-rw-rw-r--)  Uid: ( 1000/ student)   Gid: ( 1000/ student)
Access: 2022-05-17 18:06:58.835435645 -0400
Modify: 2022-05-17 18:01:32.424314924 -0400
Change: 2022-05-17 18:01:32.424314924 -0400
 Birth: -
student@Cis106vm:~/midtermfiles3/question1$
```

2.)

```
student@Cis106vm:~/Documents/midtermfiles3/question1$ sudo mv Windows_logo.svg /usr/share/backgrounds/New_logo.svg
student@Cis106vm:~/Documents/midtermfiles3/question1$
```

3.)

```
student@Cis106vm:~$ cd ~/Documents/midtermfiles3/question1
student@Cis106vm:~/Documents/midtermfiles3/question1$ ls -l *.svg
-rw-rw-r-- 1 student student 3997 May 17 18:01 MacOS_logo.svg
-rw-rw-r-- 1 student student  699 May 17 18:01 Ubuntu_logo.svg
student@Cis106vm:~/Documents/midtermfiles3/question1$
```

4.)

```
student@Cis106vm:~$ tree -lQpsDh ~/Documents/midtermfiles3/question1
'/home/student/Documents/midtermfiles3/question1'
├── [-rw-rw-r-- 512 May 17 18:01] "about.html"
├── [-rw-rw-r-- 20K May 17 18:01] "accounts.ods"
├── [-rw-rw-r-- 551 May 17 18:01] "basicInfo.txt"
├── [-rw-rw-r-- 512 May 17 18:01] "contact.html"
├── [-rw-rw-r-- 41 May 17 18:01] "hello.py"
├── [-rw-rw-r-- 36 May 17 18:01] "hello.rb"
├── [-rw-rw-r-- 32 May 17 18:01] "hello.sh"
├── [-rw-rw-r-- 512 May 17 18:01] "index.html"
├── [-rw-rw-r-- 9.9K May 17 18:01] "linux.docx"
├── [-rw-rw-r-- 16K May 17 18:01] "linux.pdf"
├── [-rw-rw-r-- 609 May 17 18:01] "linux.txt"
├── [-rw-rw-r-- 10K May 17 18:01] "macos.docx"
├── [-rw-rw-r-- 3.9K May 17 18:01] "MacOS_logo.svg"
├── [-rw-rw-r-- 18K May 17 18:01] "macos.pdf"
├── [-rw-rw-r-- 978 May 17 18:01] "macos.txt"
├── [-rw-rw-r-- 699 May 17 18:01] "Ubuntu_logo.svg"
├── [-rw-rw-r-- 20K May 17 18:01] "users-data.ods"
├── [-rw-rw-r-- 10.0K May 17 18:01] "windows.docx"
├── [-rw-rw-r-- 17K May 17 18:01] "windows.pdf"
└── [-rw-rw-r-- 866 May 17 18:01] "windows.txt"
```