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- Semester: **Spring 2021**

# Midterm Spring 2021

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## Question 1

- **I, believe it is a good idea to migrate to Ubuntu instead of upgrading windows and buying new hardware because Ubuntu just has so much to offer. You can download and install Ubuntu for free. All future upgrades are free and are installed automatically. Ubuntu has their own version of Microsoft Office called Open Office which is preinstalled at no cost. You do not have to buy expensive hardware and you will be generally free from viruses compared to Windows who needs antivirus. Ubuntu comes with a free long term support and high customization. Besides the fact that you will save money in a matter of ways you would continue to support Ubuntu whose philosophy is "Every computer user should have the freedom to download, run, copy, distribute, study, share, change and improve their software for any purpose, without paying licensing fees."**

## Question 2

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~$
→ $cd ~/midtermS21/question2
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $mkdir -p fall-2021/{CIS108,EN102,BU101,CIS125}/{assignments,extramat,notes}
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $tree
.
├── fall-2021
│   ├── BU101
│   │   ├── assignments
│   │   ├── extramat
│   │   └── notes
│   ├── CIS108
│   │   ├── assignments
│   │   ├── extramat
│   │   └── notes
│   ├── CIS125
│   │   ├── assignments
│   │   ├── extramat
│   │   └── notes
│   └── EN102
│       ├── assignments
│       ├── extramat
│       └── notes
└── 17 directories, 0 files

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $wget https://robertalberto.com/cis106/midtermfiles/question2.tar
--2021-04-28 22:21:08-- https://robertalberto.com/cis106/midtermfiles/question2.tar
Resolving robertalberto.com (robertalberto.com)... 34.66.0.162
Connecting to robertalberto.com (robertalberto.com)|34.66.0.162|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 20480 (20K) [application/x-tar]
Saving to: 'question2.tar'

question2.tar          100%[=====>] 20.00K  97.9KB/s   in 0.2s

2021-04-28 22:21:09 (97.9 KB/s) - 'question2.tar' saved [20480/20480]

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $tar -xvf question2.tar
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $ls
fall-2021  question2  question2.tar
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2$
→ $cd question2
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $ls
bu101_all_assignments.txt  cis108_all_assignments.txt  cis125_all_assignments.txt  en102_all_assignments.txt
bu101book.pdf             cis108book.pdf             cis125book.pdf             en102book.pdf
bu101notes.md             cis108notes.md             cis125notes.md             en102notes.md
bu101syllabus.docx        cis108syllabus.docx        cis125syllabus.docx        en102syllabus.docx
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $

[~]$[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $ls
bu101_all_assignments.txt  cis108_all_assignments.txt  cis125_all_assignments.txt  en102_all_assignments.txt
bu101book.pdf             cis108book.pdf             cis125book.pdf             en102book.pdf
bu101notes.md             cis108notes.md             cis125notes.md             en102notes.md
bu101syllabus.docx        cis108syllabus.docx        cis125syllabus.docx        en102syllabus.docx
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $mv bu101* ~/midtermS21/question2/fall-2021/BU101/
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $mv cis108* ~/midtermS21/question2/fall-2021/CIS108/
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $mv cis125* ~/midtermS21/question2/fall-2021/CIS125/
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $mv en102* ~/midtermS21/question2/fall-2021/EN102/
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/question2$
→ $cd ~/midtermS21/question2/fall-2021/BU101
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/BU101$
→ $ls
assignments  bu101_all_assignments.txt  bu101book.pdf  bu101notes.md  bu101syllabus.docx  extramat  notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/BU101$
→ $mv *.txt assignments

```

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/BU101
→ $mv *.pdf *.docx extramat
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/BU101
→ $mv *.md notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/BU101
→ $cd ~/midtermS21/question2/fall-2021/CIS108
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS108
→ $ls
assignments cis108_all_assignments.txt cis108book.pdf cis108notes.md cis108syllabus.docx extramat notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS108
→ $mv *.txt assignments
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS108
→ $mv *.pdf *.docx extramat
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS108
→ $mv *.md notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS108
→ $cd ~/midtermS21/question2/fall-2021/CIS125
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $ls
assignments cis125_all_assignments.txt cis125book.pdf cis125notes.md cis125syllabus.docx extramat notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $mv *.txt assignments
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $mv *.pdf *.docx extramat
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $mv *.md notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $

```

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $mv *.txt assignments
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $mv *.pdf *.docx extramat
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $mv *.md notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/CIS125
→ $cd ~/midtermS21/question2/fall-2021/EN102
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/EN102
→ $ls
assignments en102_all_assignments.txt en102book.pdf en102notes.md en102syllabus.docx extramat notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/EN102
→ $mv *.txt assignments
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/EN102
→ $mv *.pdf *.docx extramat
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/EN102
→ $mv *.md notes
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/EN102
→ $cd ../
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021
→ $tree -hp

```

```

├── [drwxrwxr-x 4.0K] BU101
│   ├── [drwxrwxr-x 4.0K] assignments
│   │   └── [-rw-rw-r-- 106] bu101_all_assignments.txt
│   ├── [drwxrwxr-x 4.0K] extramat
│   │   └── [-rw-rw-r-- 88] bu101book.pdf
│   │   └── [-rw-rw-r-- 71] bu101syllabus.docx
│   └── [drwxrwxr-x 4.0K] notes
└── [drwxrwxr-x 4.0K]

```

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021/EN102
→ $cd ../
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021
→ $tree -hp

```

```

├── [drwxrwxr-x 4.0K] BU101
│   ├── [drwxrwxr-x 4.0K] assignments
│   │   └── [-rw-rw-r-- 106] bu101_all_assignments.txt
│   ├── [drwxrwxr-x 4.0K] extramat
│   │   └── [-rw-rw-r-- 88] bu101book.pdf
│   │   └── [-rw-rw-r-- 71] bu101syllabus.docx
│   └── [drwxrwxr-x 4.0K] notes
│       └── [-rw-rw-r-- 104] bu101notes.md
├── [drwxrwxr-x 4.0K] CIS108
│   ├── [drwxrwxr-x 4.0K] assignments
│   │   └── [-rw-rw-r-- 56] cis108_all_assignments.txt
│   ├── [drwxrwxr-x 4.0K] extramat
│   │   └── [-rw-rw-r-- 101] cis108book.pdf
│   │   └── [-rw-rw-r-- 70] cis108syllabus.docx
│   └── [drwxrwxr-x 4.0K] notes
│       └── [-rw-rw-r-- 52] cis108notes.md
├── [drwxrwxr-x 4.0K] CIS125
│   ├── [drwxrwxr-x 4.0K] assignments
│   │   └── [-rw-rw-r-- 59] cis125_all_assignments.txt
│   ├── [drwxrwxr-x 4.0K] extramat
│   │   └── [-rw-rw-r-- 90] cis125book.pdf
│   │   └── [-rw-rw-r-- 79] cis125syllabus.docx
│   └── [drwxrwxr-x 4.0K] notes
│       └── [-rw-rw-r-- 86] cis125notes.md
└── [drwxrwxr-x 4.0K] EN102
    ├── [drwxrwxr-x 4.0K] assignments
    │   └── [-rw-rw-r-- 45] en102_all_assignments.txt
    ├── [drwxrwxr-x 4.0K] extramat
    │   └── [-rw-rw-r-- 142] en102book.pdf
    │   └── [-rw-rw-r-- 85] en102syllabus.docx
    └── [drwxrwxr-x 4.0K] notes
        └── [-rw-rw-r-- 69] en102notes.md

```

16 directories, 16 files

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question2/fall-2021

```

## Question 3

```
[mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3]
→ $mkdir -p carCompany/{sql,html,js,css}
[mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3]
→ $cd carCompany
[mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3/carCompany]
→ $ls
css  html  js  sql

[~] - [mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3/carCompany]
→ $touch ~/midtermS21/question3/carCompany/sql/{script1.sql,script2.sql}

[~] - [mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3/carCompany]
→ $touch ~/midtermS21/question3/carCompany/html/{home.html,contac.html,products.html}
[mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3/carCompany]
→ $touch ~/midtermS21/question3/carCompany/css/{base.css,reset.css}
[mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3/carCompany]
→ $touch ~/midtermS21/question3/carCompany/js/{slide.js,loader.js,script.js}
[mcgarcia13701@mcgarcia13701-VirtualBox] - [~/midtermS21/question3/carCompany]
→ $ls -hrGg
.:
total 16K
drwxrwxr-x 2 4.0K Apr 29 00:29 sql
drwxrwxr-x 2 4.0K Apr 29 00:32 js
drwxrwxr-x 2 4.0K Apr 29 00:31 html
drwxrwxr-x 2 4.0K Apr 29 00:31 css

./sql:
total 0
-rw-rw-r-- 1 0 Apr 29 00:29 script2.sql
-rw-rw-r-- 1 0 Apr 29 00:29 script1.sql

./js:
total 0
-rw-rw-r-- 1 0 Apr 29 00:32 slide.js
-rw-rw-r-- 1 0 Apr 29 00:32 script.js
-rw-rw-r-- 1 0 Apr 29 00:32 loader.js

./html:
total 0
-rw-rw-r-- 1 0 Apr 29 00:31 products.html
```

```
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3/carCompany]
$ls -lrGg
total 16K
drwxrwxr-x 2 4.0K Apr 29 00:29 sql
drwxrwxr-x 2 4.0K Apr 29 00:32 js
drwxrwxr-x 2 4.0K Apr 29 00:31 html
drwxrwxr-x 2 4.0K Apr 29 00:31 css

./sql:
total 0
-rw-rw-r-- 1 0 Apr 29 00:29 script2.sql
-rw-rw-r-- 1 0 Apr 29 00:29 script1.sql

./js:
total 0
-rw-rw-r-- 1 0 Apr 29 00:32 slide.js
-rw-rw-r-- 1 0 Apr 29 00:32 script.js
-rw-rw-r-- 1 0 Apr 29 00:32 loader.js

./html:
total 0
-rw-rw-r-- 1 0 Apr 29 00:31 products.html
-rw-rw-r-- 1 0 Apr 29 00:31 home.html
-rw-rw-r-- 1 0 Apr 29 00:31 contac.html

./css:
total 0
-rw-rw-r-- 1 0 Apr 29 00:31 reset.css
-rw-rw-r-- 1 0 Apr 29 00:31 base.css
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3/carCompany]
$

mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
$ls
carCompany
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
$tar cfz carCompany.tar.gz carCompany/
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
$tar tf carCompany.tar.gz
carCompany/
carCompany/sql/
carCompany/sql/script2.sql
carCompany/sql/script1.sql
carCompany/html/
carCompany/html/home.html
carCompany/html/products.html
carCompany/html/contac.html
carCompany/js/
carCompany/js/slide.js
carCompany/js/loader.js
carCompany/js/script.js
carCompany/css/
carCompany/css/base.css
carCompany/css/reset.css
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
$mv carCompany.tar.gz ~/Documents
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
$rm -r carCompany
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
$ls
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question3]
```

## Question 4

```

[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ wget https://robertalberto.com/cis106/midtermfiles/maria-college-files.tar.xz
--2021-04-29 12:00:09-- https://robertalberto.com/cis106/midtermfiles/maria-college-files.tar.xz
Resolving robertalberto.com (robertalberto.com)... 34.66.0.162
Connecting to robertalberto.com (robertalberto.com)|34.66.0.162|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 27287876 (26M) [application/x-xz]
Saving to: 'maria-college-files.tar.xz'

maria-college-file 100%[=====] 26.02M  3.26MB/s   in 15s

2021-04-29 12:00:24 (1.74 MB/s) - 'maria-college-files.tar.xz' saved [27287876/27287876]

```

```

[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ $ xz -dkc <maria-college-files.tar.xz> maria-college-files.tar
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ $ tar -xf maria-college-files.tar
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ $ ls
maria-college-files  maria-college-files.tar  maria-college-files.tar.xz
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ $ rm maria-college-files.tar maria-college-files.tar.xz
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ $ ls -lXh maria-college-files >> all-files-org.md
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4
→ $ cd maria-college-files
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ ls
calculator.exe  email.docx  grades.xls  motog.jpg  program.exe  site.html  videos.html
code.pdf        expenses.xls  iphone.jpg  panama.png  puertorico.png  spreadsheets.xls  wiki.html
communication.docx  galaxy.jpg  laundry.txt  pccc-aasprogram.pdf  pyramid.docx  students.xls
documentation.pdf  game.exe  mealplan.txt  pccc-logo.png  shoppinglist.txt  venezuela.png
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ mkdir -p {Docs,Photos,Web,Exe}
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ mv *.pdf *.txt *.xls *.docx Docs
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ mv *.jpg *.png Photos
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ mv *.html Web
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ mv *.exe Exe
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $

```

```

[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ tree >> ~/midtermS21/question4/all-files-org.md
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question4/maria-college-files
→ $ tree

Docs
├── code.pdf
├── communication.docx
├── documentation.pdf
├── email.docx
├── expenses.xls
├── grades.xls
├── laundry.txt
├── mealplan.txt
├── pccc-aasprogram.pdf
├── pyramid.docx
├── shoppinglist.txt
├── spreadsheets.xls
└── students.xls

```

```

mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$ tree
.
├── Docs
│   ├── code.pdf
│   ├── communication.docx
│   ├── documentation.pdf
│   ├── email.docx
│   ├── expenses.xls
│   ├── grades.xls
│   ├── laundry.txt
│   ├── mealplan.txt
│   ├── pccc-aasprogram.pdf
│   ├── pyramid.docx
│   ├── shoppinglist.txt
│   ├── spreadsheets.xls
│   └── students.xls
├── Exe
│   ├── calculator.exe
│   ├── game.exe
│   └── program.exe
├── Photos
│   ├── galaxy.jpg
│   ├── iphone.jpg
│   ├── motog.jpg
│   ├── panama.png
│   ├── pccc-logo.png
│   ├── puertorico.png
│   └── venezuela.png
└── Web
    ├── site.html
    ├── videos.html
    └── wiki.html
4 directories, 26 files

4 directories, 26 files
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$ tar cf all-files.tar *
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$ ls
all-files.tar Docs Exe Photos Web
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$ gzip all-files.tar
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$ ls
all-files.tar.gz Docs Exe Photos Web
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$

mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$ tar tf all-files.tar.gz && ls -sh ~/midtermS21/question4/all-files-org.md
Docs/
Docs/spreadsheets.xls
Docs/expenses.xls
Docs/mealplan.txt
Docs/pccc-aasprogram.pdf
Docs/grades.xls
Docs/laundry.txt
Docs/communication.docx
Docs/students.xls
Docs/code.pdf
Docs/documentation.pdf
Docs/email.docx
Docs/shoppinglist.txt
Docs/pyramid.docx
Exe/
Exe/calculator.exe
Exe/game.exe
Exe/program.exe
Photos/
Photos/venezuela.png
Photos/iphone.jpg
Photos/panama.png
Photos/motog.jpg
Photos/puertorico.png
Photos/galaxy.jpg
Photos/pccc-logo.png
Web/
Web/videos.html
Web/site.html
Web/wiki.html
4.0K /home/mcgarcia13701/midtermS21/question4/all-files-org.md
mcgarcia13701@mcgarcia13701-VirtualBox: [~/midtermS21/question4/maria-college-files]
$

```

## Question 5



```

mcgarcia13701@mcgarcia13701-VirtualBox: ~/midtermS21/question5
-- $wget https://robertalberto.com/cis106/midtermfiles/samplesite2.tar.gz
--2021-04-29 17:36:04-- https://robertalberto.com/cis106/midtermfiles/samplesite2.tar.gz
Resolving robertalberto.com (robertalberto.com)... 34.66.0.162
Connecting to robertalberto.com (robertalberto.com)[34.66.0.162]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1202054 (1.1M) [application/x-gzip]
Saving to: 'samplesite2.tar.gz'

samplesite2.tar.gz 100%[=====] 1.15M 1.08MB/s in 1.1s

2021-04-29 17:36:06 (1.08 MB/s) - 'samplesite2.tar.gz' saved [1202054/1202054]

mcgarcia13701@mcgarcia13701-VirtualBox: ~/midtermS21/question5
-- $sudo apt install apache2
[sudo] password for mcgarcia13701:
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 libevent-2.1-7 libgc1c2 libgnome-games-support-1-3 libgnome-games-support-common libnatpmp1 libqqwing2v5
  linux-headers-5.8.0-45-generic linux-hwe-5.8.0-headers-5.8.0-45 linux-image-5.8.0-45-generic linux-modules-5.8.0-45-generic
  linux-modules-extra-5.8.0-45-generic python3-systemd
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  apache2-data apache2-utils
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-data apache2-utils
0 upgraded, 3 newly installed, 0 to remove and 94 not upgraded.
Need to get 338 kB of archives.
After this operation, 1,815 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-updates/main amd64 apache2-data all 2.4.41-4ubuntu3.1 [158 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2-utils amd64 2.4.41-4ubuntu3.1 [83.8 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2 amd64 2.4.41-4ubuntu3.1 [95.5 kB]
Fetched 338 kB in 1s (647 kB/s)
Selecting previously unselected package apache2-data.
(Reading database ... 264819 files and directories currently installed.)
Preparing to unpack .../apache2-data_2.4.41-4ubuntu3.1_all.deb ...
Unpacking apache2-data (2.4.41-4ubuntu3.1) ...
Selecting previously unselected package apache2-utils.
Preparing to unpack .../apache2-utils_2.4.41-4ubuntu3.1_amd64.deb ...
Unpacking apache2-utils (2.4.41-4ubuntu3.1) ...
Selecting previously unselected package apache2.
Preparing to unpack .../apache2_2.4.41-4ubuntu3.1_amd64.deb ...
Unpacking apache2 (2.4.41-4ubuntu3.1) ...
Setting up apache2-data (2.4.41-4ubuntu3.1) ...
Setting up apache2-utils (2.4.41-4ubuntu3.1) ...
Setting up apache2 (2.4.41-4ubuntu3.1) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authz_host.
Enabling module authn_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
...

Setting up apache2-utils (2.4.41-4ubuntu3.1) ...
Setting up apache2 (2.4.41-4ubuntu3.1) ...
Enabling module mpm_event.
Enabling module authz_core.
Enabling module authz_host.
Enabling module authn_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module authn_file.
Enabling module authz_user.
Enabling module alias.
Enabling module dir.
Enabling module autoindex.
Enabling module env.
Enabling module mime.
Enabling module negotiation.
Enabling module setenvif.
Enabling module filter.
Enabling module deflate.
Enabling module status.
Enabling module reqtimeout.
Enabling conf charset.
Enabling conf localized-error-pages.
Enabling conf other-vhosts-access-log.
Enabling conf security.
Enabling conf serve-cgi-bin.
Enabling site 000-default.
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.
Processing triggers for systemd (245.4-4ubuntu3.4) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for ufw (0.36-6) ...

mcgarcia13701@mcgarcia13701-VirtualBox: ~/midtermS21/question5
$

```



```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ cd /var/www/html/
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
$ ls
index.html
```

```
[X] [mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
$ sudo mv index.html index.html.bk
```

```
[sudo] password for mcgarcia13701:
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
$ ls
```

```
index.html.bk
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
$ cd
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~
```

```
$ cd ~/midtermS21/question5
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ ls
```

```
samplesite2.tar.gz
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ gzip -dkc <samplesite2.tar.gz> samplesite2.tar
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ ls
```

```
samplesite2.tar  samplesite2.tar.gz
```

```
[X] [mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ ls
```

```
samplesite2.tar  samplesite2.tar.gz
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ tar -xf samplesite2.tar
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ ls
```

```
samplesite2  samplesite2.tar  samplesite2.tar.gz
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ ls
```

```
samplesite2  samplesite2.tar  samplesite2.tar.gz
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ sudo mv samplesite2 /var/www/html
```

```
[sudo] password for mcgarcia13701:
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ ls
```

```
samplesite2.tar  samplesite2.tar.gz
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question5
$ cd /var/www/html
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
$ ls
```

```
index.html.bk  samplesite2
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
```

```
$ sudo systemctl enable apache2
```

```
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
```

```
Executing: /lib/systemd/systemd-sysv-install enable apache2
```

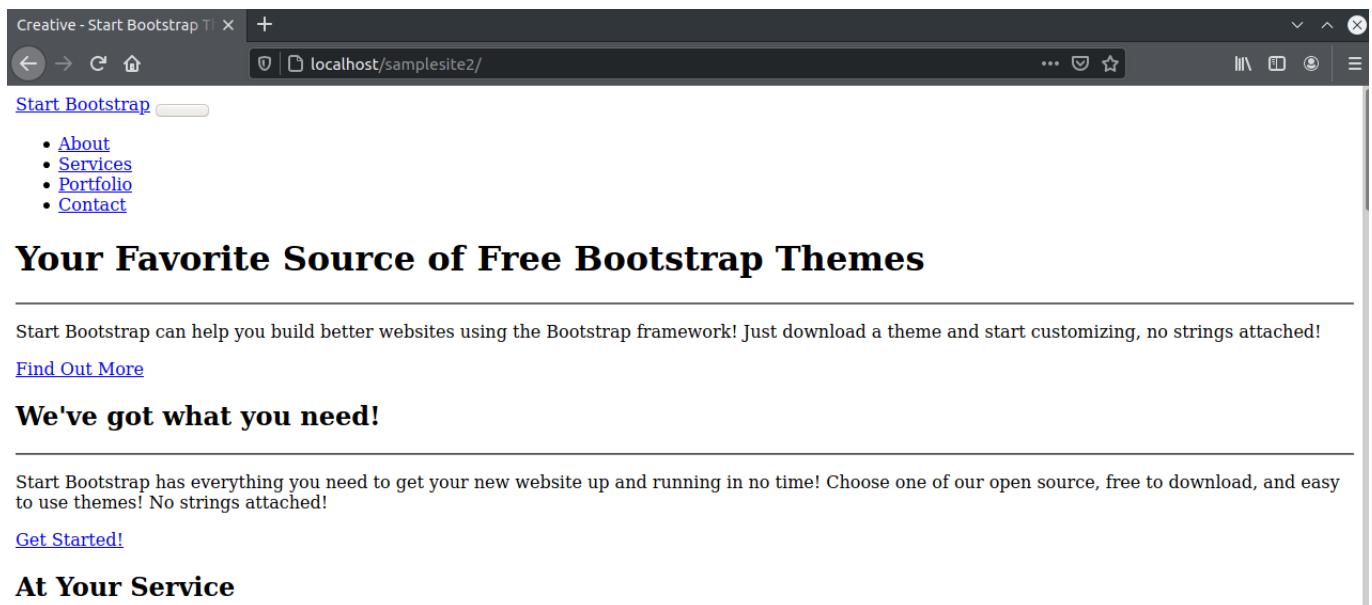
```
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
```

```
$ sudo systemctl restart apache2
```

```
[mcgarcia13701@mcgarcia13701-VirtualBox] /var/www/html
```

```
$
```

```
[X]-[mcgarcia13701@mcgarcia13701-VirtualBox]-[/var/www/html]
→ $ls samplesite2
bg-masthead.jpg  favicon.ico  fullsize  index.html  scripts.js  styles.css  thumbnails
[mcgarcia13701@mcgarcia13701-VirtualBox]-[/var/www/html]
→ $ls -l
total 16
-rw-r--r-- 1 root      root      10918 Apr 29 17:40 index.html.bk
drwx----- 4 mcgarcia13701 mcgarcia13701 4096 Apr 29 20:31 samplesite2
[mcgarcia13701@mcgarcia13701-VirtualBox]-[/var/www/html]
→ $chmod 777 index.html.bk
chmod: changing permissions of 'index.html.bk': Operation not permitted
[X]-[mcgarcia13701@mcgarcia13701-VirtualBox]-[/var/www/html]
→ $chmod 777 samplesite2/
[mcgarcia13701@mcgarcia13701-VirtualBox]-[/var/www/html]
→ $ls -l
total 16
-rw-r--r-- 1 root      root      10918 Apr 29 17:40 index.html.bk
drwxrwxrwx 4 mcgarcia13701 mcgarcia13701 4096 Apr 29 20:31 samplesite2
[mcgarcia13701@mcgarcia13701-VirtualBox]-[/var/www/html]
→ $
```



## Question 6

```

mcgarcia13701@mcgarcia13701-VirtualBox] ~[~/midtermS21/question6]
→ $stat /etc/passwd /etc/group /etc/shadow ~/.bashrc /usr/share/dict/american-english > sizes
mcgarcia13701@mcgarcia13701-VirtualBox] ~[~/midtermS21/question6]
→ $cat sizes
File: /etc/passwd
Size: 2902          Blocks: 8          IO Block: 4096   regular file
Device: 805h/2053d Inode: 1706766   Links: 1
Access: (0644/-rw-r--r--) Uid: (   0/   root)   Gid: (   0/   root)
Access: 2021-04-29 16:30:01.852439448 -0400
Modify: 2021-02-17 21:26:20.711750712 -0500
Change: 2021-02-17 21:26:20.715750673 -0500
Birth: -
File: /etc/group
Size: 1175          Blocks: 8          IO Block: 4096   regular file
Device: 805h/2053d Inode: 1709159   Links: 1
Access: (0644/-rw-r--r--) Uid: (   0/   root)   Gid: (   0/   root)
Access: 2021-04-29 16:30:01.852439448 -0400
Modify: 2021-03-02 20:36:54.291814064 -0500
Change: 2021-03-02 20:36:54.291814064 -0500
Birth: -
File: /etc/shadow
Size: 1495          Blocks: 8          IO Block: 4096   regular file
Device: 805h/2053d Inode: 1705652   Links: 1
Access: (0640/-rw-r-----) Uid: (   0/   root)   Gid: (  42/ shadow)
Access: 2021-04-29 16:30:01.852439448 -0400
Modify: 2021-02-17 21:26:20.719750636 -0500
Change: 2021-02-17 21:26:20.723750597 -0500
Birth: -
File: /home/mcgarcia13701/.bashrc
Size: 4767          Blocks: 16          IO Block: 4096   regular file
Device: 805h/2053d Inode: 409073    Links: 1
Access: (0664/-rw-rw-r--r--) Uid: ( 1000/mcgarcia13701) Gid: ( 1000/mcgarcia13701)
Access: 2021-04-28 22:07:22.365785996 -0400
Modify: 2021-04-28 22:07:22.361786020 -0400
Change: 2021-04-28 22:07:22.361786020 -0400
Birth: -
File: /usr/share/dict/american-english
Size: 972398        Blocks: 1904        IO Block: 4096   regular file
Device: 805h/2053d Inode: 2886509   Links: 1
Access: (0644/-rw-r--r--) Uid: (   0/   root)   Gid: (   0/   root)
Access: 2021-04-28 17:40:04.631499083 -0400
Modify: 2018-04-24 19:08:24.000000000 -0400
Change: 2021-02-17 20:46:42.223912403 -0500
Birth: -
mcgarcia13701@mcgarcia13701-VirtualBox] ~[~/midtermS21/question6]
→ $

```

## Question 7

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $wget https://www.travelocity.com/inspire/wp-content/uploads/2017/11/SunsetFeeling-1024x683.jpg
--2021-04-29 21:25:01-- https://www.travelocity.com/inspire/wp-content/uploads/2017/11/SunsetFeeling-1024x683.jpg
Resolving www.travelocity.com (www.travelocity.com)... 23.59.226.61
Connecting to www.travelocity.com (www.travelocity.com)[23.59.226.61]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 97091 (95K) [image/jpeg]
Saving to: 'SunsetFeeling-1024x683.jpg'

SunsetFeeling-1024x683.jpg      100%[=====] 94.82K  --.-KB/s   in 0.03s

2021-04-29 21:25:01 (2.95 MB/s) - 'SunsetFeeling-1024x683.jpg' saved [97091/97091]

[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $ls
SunsetFeeling-1024x683.jpg
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $ls ~/midtermS21/question7/SunsetFeeling-1024x683.jpg
/home/mcgarcia13701/midtermS21/question7/SunsetFeeling-1024x683.jpg
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $ls -l
409229 SunsetFeeling-1024x683.jpg

[~][mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $sudo mv SunsetFeeling-1024x683.jpg /usr/share/backgrounds/sunsetfeeling.jpg
[sudo] password for mcgarcia13701:
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $ls
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question7]
--> $cd
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~]
--> $/
bash: /: Is a directory
[~][mcgarcia13701@mcgarcia13701-VirtualBox]~[~]
--> $cd /
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/]
--> $cd /usr/share/backgrounds
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/usr/share/backgrounds]
--> $ls
brad-huchteman-stone-mountain.jpg  hardy_wallpaper_uhd.png  sunsetfeeling.jpg
contest                           joshua-coleman-something-yellow.jpg  ubuntu-default-greyscale-wallpaper.png
Focal-Fossa_WP_4096x2304_GREY.png  matt-mcnulty-nyc-2nd-ave.jpg  warty-final-ubuntu.png
gnome                             ryan-stone-skykomish-river.jpg
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/usr/share/backgrounds]
--> $ls
brad-huchteman-stone-mountain.jpg  hardy_wallpaper_uhd.png  sunsetfeeling.jpg
contest                           joshua-coleman-something-yellow.jpg  ubuntu-default-greyscale-wallpaper.png
Focal-Fossa_WP_4096x2304_GREY.png  matt-mcnulty-nyc-2nd-ave.jpg  warty-final-ubuntu.png
gnome                             ryan-stone-skykomish-river.jpg
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/usr/share/backgrounds]
--> $ls -l sunsetfeeling.jpg
-rw-rw-r-- 1 mcgarcia13701 mcgarcia13701 97091 Aug  9 2020 sunsetfeeling.jpg
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/usr/share/backgrounds]
--> $

```

## Question 8

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $wget https://robertalberto.com/cis106/midtermfiles/mcu.tar.xz
--2021-04-29 22:04:28-- https://robertalberto.com/cis106/midtermfiles/mcu.tar.xz
Resolving robertalberto.com (robertalberto.com)... 34.66.0.162
Connecting to robertalberto.com (robertalberto.com)[34.66.0.162]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 470452 (459K) [application/x-xz]
Saving to: 'mcu.tar.xz'

mcu.tar.xz      100%[=====] 459.43K  1.63MB/s   in 0.3s

2021-04-29 22:04:29 (1.63 MB/s) - 'mcu.tar.xz' saved [470452/470452]

[~][mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $mkdir midterm-q8
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $ls
mcu.tar.xz  midterm-q8
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $tar -xvf mcu.tar.xz
mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $ls
marvel-movies  mcu.tar.xz  midterm-q8

[~][mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $mv marvel-movies midterm-q8/
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $ls midterm-q8
marvel-movies
[mcgarcia13701@mcgarcia13701-VirtualBox]~[~/midtermS21/question8]
--> $

```

```

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $ls -hostu *[a-z].* | cut -c15-
1 mcgarcia13701 21K Apr 29 22:12 avengers.jpeg
1 mcgarcia13701 17K Apr 29 22:12 iron-man.jpeg
1 mcgarcia13701 23K Apr 29 22:12 avengers-age-of-ultron.jpeg
1 mcgarcia13701 20K Apr 29 22:12 spiderman-far-way-from-home.jpeg
1 mcgarcia13701 23K Apr 29 22:12 black-panther.jpeg
1 mcgarcia13701 19K Apr 29 22:12 captain-america-the-winter-soldier.jpeg
1 mcgarcia13701 20K Apr 29 22:12 captain-marvel.jpeg
1 mcgarcia13701 17K Apr 29 22:12 thor.jpeg
1 mcgarcia13701 18K Apr 29 22:12 thor-the-dark-world.jpeg
1 mcgarcia13701 24K Apr 29 22:12 avengers-endgame.jpeg
1 mcgarcia13701 26K Apr 29 22:12 thor-ragnarok.jpeg
1 mcgarcia13701 18K Apr 29 22:12 ant-man-and-the-wasp.jpeg
1 mcgarcia13701 18K Apr 29 22:12 captain-america-the-first-avenger.jpeg
1 mcgarcia13701 24K Apr 29 22:12 doctor-strange.jpeg
1 mcgarcia13701 19K Apr 29 22:12 ant-man.jpeg
1 mcgarcia13701 19K Apr 29 22:12 spiderman-homecoming.jpeg
1 mcgarcia13701 18K Apr 29 22:12 the-incredible-hulk.jpeg
1 mcgarcia13701 23K Apr 29 22:12 avengers-infinity-war.jpeg
1 mcgarcia13701 21K Apr 29 22:12 captain-america-civil-war.jpeg
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies

1 mcgarcia13701 21K Apr 29 22:12 captain-america-civil-war.jpeg
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $ls
ant-man-and-the-wasp.jpeg      black-panther.jpeg           guardians-of-the-galaxy-vol-1.jpeg  spiderman-homecoming.jpeg
ant-man.jpeg                 captain-america-civil-war.jpeg guardians-of-the-galaxy-vol-2.jpeg  the-incredible-hulk.jpeg
avengers-age-of-ultron.jpeg  captain-america-the-first-avenger.jpeg iron-man-2.jpeg                    thor.jpeg
avengers-endgame.jpeg       captain-america-the-winter-soldier.jpeg iron-man-3.jpeg                    thor-ragnarok.jpeg
avengers-infinity-war.jpeg   captain-marvel.jpeg          iron-man.jpeg                      thor-the-dark-world.jpeg
avengers.jpeg               doctor-strange.jpeg          spiderman-far-wav-from-home.jpeg

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mkdir {Antman,Avengers,B-Panther,Captain-America,Doctor-S,Guardians,Iron-Man,Spiderman,Hulk,Thor}
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv ant* Antman
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv avengers* Avengers
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv black* B-Panther
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv captain* Captain-America
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv doctor* Doctor-S
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv guard* Guardians
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv iron* Iron-Man
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv spider* Spiderman
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv hulk* Hulk

[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv iron* Iron-Man
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv spider* Spiderman
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv hulk* Hulk
mv: cannot stat 'hulk*': No such file or directory
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv the* Hulk
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $mv thor* Thor
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $ls
Antman Avengers B-Panther Captain-America Doctor-S Guardians Hulk Iron-Man Spiderman Thor
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $ls -l | cut -d ' ' --complement -s -f3,4
total 48
drwxrwxr-x 2 4096 Apr 30 00:38 Antman
drwxrwxr-x 2 4096 Apr 30 00:38 Avengers
drwxrwxr-x 2 4096 Apr 30 00:39 B-Panther
drwxrwxr-x 2 4096 Apr 30 00:39 Captain-America
drwxrwxr-x 2 4096 Apr 30 00:39 Doctor-S
drwxrwxr-x 2 4096 Apr 30 00:39 Guardians
drwxrwxr-x 2 4096 Apr 30 00:40 Hulk
drwxrwxr-x 2 4096 Apr 30 00:40 Iron-Man
drwxrwxr-x 2 4096 Apr 30 00:40 Spiderman
drwxrwxr-x 2 4096 Apr 30 00:40 Thor
[mcgarcia13701@mcgarcia13701-VirtualBox]~/midtermS21/question8/midterm-q8/marverl-movies
→ $

```

## Question 9



```

[mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9
-- $wget https://robertalberto.com/cis106/midtermfiles/vgc.tar.xz
--2021-04-30 01:16:54-- https://robertalberto.com/cis106/midtermfiles/vgc.tar.xz
Resolving robertalberto.com (robertalberto.com)... 34.66.0.162
Connecting to robertalberto.com (robertalberto.com)|34.66.0.162|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 151728 (148K) [application/x-xz]
Saving to: 'vgc.tar.xz'

vgc.tar.xz          100%[=====] 148.17K  478KB/s  in 0.3s
1-04-30 01:16:55 (478 KB/s) - 'vgc.tar.xz' saved [151728/151728]

[mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9
-- $cd
-- [mcgarci13701@mcgarci13701-VirtualBox] ~]
-- $cd ~/midtermS21/question9
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $mkdir midterm-q9
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $ls
midterm-q9  vgc.tar.xz

[mcgarci13701@mcgarci13701-VirtualBox] ~]
-- $cd ~/midtermS21/question9
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $ls
midterm-q9  vgc.tar.xz
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $tar -xvf vgc.tar.xz
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $ls
midterm-q9  vgc.tar.xz  videogame-consoles
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $mv videogame-consoles midterm-q9/
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $ls
midterm-q9  vgc.tar.xz
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9]
-- $cd midterm-q9
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9]
-- $ls
videogame-consoles
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9]
-- $cd videogame-consoles
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles]
-- $ls
Nintendo-64-1996.jpeg      nintendo-wii-2006.jpeg      Playstation-4-2013.jpeg      Xbox-One-2013.jpeg
nintendo-color-tv-game-1977-1980.jpeg  nintendo-wii-u-2012.jpeg  Playstation-5-2020.jpeg      Xbox-series-X-2020.jpg
nintendo-entertainment-system-1983.jpeg  Playstation-1-1994.jpeg  Super-Nintendo-Entertainment-System-1990.jpeg
Nintendo-GameCube-2001.jpeg      Playstation-2-2000-.jpeg  X-box-2001.jpeg
Nintendo-Switch-2017.jpeg      Playstation-3-2006.jpeg  Xbox-360-2005.jpeg

-- $cd videogame-consoles
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles]
-- $ls
Nintendo-64-1996.jpeg      nintendo-wii-2006.jpeg      Playstation-4-2013.jpeg      Xbox-One-2013.jpeg
nintendo-color-tv-game-1977-1980.jpeg  nintendo-wii-u-2012.jpeg  Playstation-5-2020.jpeg      Xbox-series-X-2020.jpg
nintendo-entertainment-system-1983.jpeg  Playstation-1-1994.jpeg  Super-Nintendo-Entertainment-System-1990.jpeg
Nintendo-GameCube-2001.jpeg      Playstation-2-2000-.jpeg  X-box-2001.jpeg
Nintendo-Switch-2017.jpeg      Playstation-3-2006.jpeg  Xbox-360-2005.jpeg

-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles]
-- $ls *198* *199*
Nintendo-64-1996.jpeg      nintendo-entertainment-system-1983.jpeg  Super-Nintendo-Entertainment-System-1990.jpeg
nintendo-color-tv-game-1977-1980.jpeg  Playstation-1-1994.jpeg

-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles]
-- $ls *200*
Nintendo-GameCube-2001.jpeg  nintendo-wii-2006.jpeg  Playstation-2-2000-.jpeg  Playstation-3-2006.jpeg  X-box-2001.jpeg  Xbox-360-2005.jpeg
-- [mcgarci13701@mcgarci13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles]
-- $

```



```

[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mkdir Year1970 Year1980 Year1990 Year2000 Year2010 Year2020
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $ls
Nintendo-64-1996.jpeg          nintendo-wii-u-2012.jpeg      Super-Nintendo-Entertainment-System-1990.jpeg  Year1980
nintendo-color-tv-game-1977-1980.jpeg  PlayStation-1-1994.jpeg      X-box-2001.jpeg                                Year1990
nintendo-entertainment-system-1983.jpeg  PlayStation-2-2000-.jpeg     Xbox-360-2005.jpeg                             Year2000
Nintendo-GameCube-2001.jpeg            PlayStation-3-2006.jpeg      Xbox-One-2013.jpeg                             Year2010
Nintendo-Switch-2017.jpeg              PlayStation-4-2013.jpeg      Xbox-series-X-2020.jpg                         Year2020
nintendo-wii-2006.jpeg                PlayStation-5-2020.jpeg      Year1970

[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $ls
Nintendo-64-1996.jpeg          nintendo-wii-u-2012.jpeg      Super-Nintendo-Entertainment-System-1990.jpeg  Year1980
nintendo-color-tv-game-1977-1980.jpeg  PlayStation-1-1994.jpeg      X-box-2001.jpeg                                Year1990
nintendo-entertainment-system-1983.jpeg  PlayStation-2-2000-.jpeg     Xbox-360-2005.jpeg                             Year2000
Nintendo-GameCube-2001.jpeg            PlayStation-3-2006.jpeg      Xbox-One-2013.jpeg                             Year2010
Nintendo-Switch-2017.jpeg              PlayStation-4-2013.jpeg      Xbox-series-X-2020.jpg                         Year2020
nintendo-wii-2006.jpeg                PlayStation-5-2020.jpeg      Year1970

[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-2020.jp* Year2020
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-2017.jp* Year2010
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-2007.jp* Year2000
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-1997.jp* Year1990
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $cp *-1980.jpeg* Year1980
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-2000-.jp* Year2000
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-1987.jp* Year 1980
mv: target '1980' is not a directory
[X]-[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $mv *-1987.jp* Year1980
[mcgarcia13701@mcgarcia13701-VirtualBox] ~/midtermS21/question9/midterm-q9/videogame-consoles
→ $

```

## Question 10

- In my opinion, the hardest question was Question #5. The reason is because I had to keep refreshing the website and checking on my progress to fix the website.
- In my opinion, the easiest question had to be question #6. The reason is because I was able to complete this question with only two commands.
- What would have made the midterm easier is if the user(myself) had tried out the commands excessively.
- Even though you might just be going over the basics of Linux I feel like I have learned a whole new universe. Out of all the classes I can really say I learned the most in this class especially knowledge I will have way after.
- I have never really taken an exam like this before but it really made me think like I have never before. Trying to figure out your way to do things or fix it can be time consuming but if you have knowledge you will do it one way or the other.