

Question 1

```
student@Cis106vm:~$ ls /etc/*.conf
/etc/adduser.conf      /etc/host.conf        /etc/pam.conf
/etc/apg.conf          /etc/inxi.conf        /etc/pnm2ppa.conf
/etc/appstream.conf    /etc/kernel-img.conf  /etc/popularity-contest.conf
/etc/brltty.conf       /etc/kerneloops.conf  /etc/resolv.conf
/etc/ca-certificates.conf /etc/ld.so.conf       /etc/rsyslog.conf
/etc/debconf.conf      /etc/libao.conf       /etc/rygel.conf
/etc/deluser.conf      /etc/libaudit.conf    /etc/sensors3.conf
/etc/e2scrub.conf      /etc/logrotate.conf   /etc/sysctl.conf
/etc/fprintd.conf      /etc/ltrace.conf      /etc/ucf.conf
/etc/fuse.conf          /etc/mke2fs.conf      /etc/usb_modeswitch.conf
/etc/gai.conf           /etc/mtools.conf      /etc/xattr.conf
/etc/hdparm.conf       /etc/nsswitch.conf

student@Cis106vm:~$ ls -lgHs --time-style=+%D /etc/h*.conf /etc/p*.conf
8.0K -rw-r--r-- 1 5.0K 08/21/19 /etc/hdparm.conf
4.0K -rw-r--r-- 1 92 12/05/19 /etc/host.conf
4.0K -rw-r--r-- 1 552 12/17/19 /etc/pam.conf
8.0K -rw-r--r-- 1 7.5K 08/19/21 /etc/pnm2ppa.conf
4.0K -rw-rw-r-- 1 350 02/21/22 /etc/popularity-contest.conf
```

```
student@Cis106vm:~$ ls /usr/share/themes/*/*.theme -R
/usr/share/themes/Adwaita-dark/index.theme
/usr/share/themes/Adwaita/index.theme
/usr/share/themes/HighContrast/index.theme
/usr/share/themes/Yaru-dark/index.theme
/usr/share/themes/Yaru/index.theme
/usr/share/themes/Yaru-light/index.theme
student@Cis106vm:~$ ls /home/student/lab6/*.log
/home/student/lab6/88_Application-log.log
/home/student/lab6/alternatives.log
/home/student/lab6/apache01-error.log
/home/student/lab6/apache22.log
/home/student/lab6/auth.log
/home/student/lab6/bootstrap.log
/home/student/lab6/dpkg.log
/home/student/lab6/fontconfig.log
/home/student/lab6/gpu-manager.log
/home/student/lab6/history.log
/home/student/lab6/http404.log
/home/student/lab6/kern.log
/home/student/lab6/make.log
/home/student/lab6/term.log
/home/student/lab6/unattended-upgrades-dpkg.log
/home/student/lab6/unattended-upgrades.log
/home/student/lab6/unattended-upgrades-shutdown.log
student@Cis106vm:~$ mkdir lab6/log-files
student@Cis106vm:~$ mv lab6/*.log lab6/log-files/
student@Cis106vm:~$ ls lab6/log-files/
88_Application-log.log  dpkg.log          make.log
alternatives.log       fontconfig.log    term.log
apache01-error.log     gpu-manager.log   unattended-upgrades-dpkg.log
apache22.log           history.log        unattended-upgrades.log
auth.log               http404.log       unattended-upgrades-shutdown.log
bootstrap.log          kern.log
student@Cis106vm:~$
```

Question 2

```
student@Cis106vm:~$ ls -A lab6/.*?*
lab6/.appveyor.yml      lab6/.jscsrc
lab6/.auto-changelog     lab6/.jshintignore
lab6/.bash_history       lab6/.jshintrc
lab6/.bash_logout        lab6/.keep
lab6/.bashrc             lab6/.last_revision
lab6/.blocks-log         lab6/.lessht
lab6/.blocks-progress    lab6/.metadata-v2
lab6/.changed            lab6/.meta.isrunning
lab6/.cis106.png         lab6/.min-wd
lab6/.cis106.png.trashinfo lab6/.npmignore
lab6/.coveralls.yml      lab6/.nycrc
lab6/.dir-locals.el      lab6/.obsolete
lab6/.editorconfig       lab6/.padding
lab6/.envrc              lab6/.parentlock
lab6/.eslintignore       lab6/.prettierignore
lab6/.eslintrc           lab6/.prettierrc.yaml
lab6/.eslintrc.js        lab6/.profile
lab6/.eslintrc.json      lab6/.startup-incomplete
lab6/.eslintrc.yml       lab6/.sudo_as_admin_successful
lab6/.gitattributes       lab6/.tern-project
lab6/.gitconfig           lab6/.tm_properties
lab6/.gitignore           lab6/.tonic_example.js
lab6/.gitkeep             lab6/.travis.yml
lab6/.gitmodules          lab6/.vboxclient-clipboard.pid
lab6/.hidden              lab6/.vboxclient-display-svg-x11.pid
lab6/.htaccess            lab6/.vboxclient-draganddrop.pid
lab6/.istanbul.yml        lab6/.vboxclient-seamless.pid
lab6/.jscs.json           lab6/.vsixmanifest
student@Cis106vm:~$ ls -A lab6/*.??
lab6/file_00.sh lab6/file_02.sh lab6/file_04.sh
lab6/file_01.sh lab6/file_03.sh lab6/file_05.sh
student@Cis106vm:~$
```

Question 3

```
student@Cis106vm:~$ ls lab6/[A-Z]*
lab6/Document.doc  lab6/Expenses.xls
student@Cis106vm:~$ ls lab6/[A-Z0-9]*
lab6/25Games.lst  lab6/Document.doc  lab6/Expenses.xls
student@Cis106vm:~$ ls lab6/[0-9]*
lab6/25Games.lst
student@Cis106vm:~$ ls lab6/[a-z0-9]*
lab6/25Games.lst  lab6/file_01.sh  lab6/file_04.sh  lab6/list.txt
lab6/apache03.err  lab6/file_02.sh  lab6/file_05.sh  lab6/lost.txt
lab6/file_00.sh    lab6/file_03.sh  lab6/last.txt    lab6/trip22-info.doc

lab6/log-files:
88_Application-log.log  dpkg.log          make.log
alternatives.log        fontconfig.log    term.log
apache01-error.log     gpu-manager.log   unattended-upgrades-dpkg.log
apache22.log            history.log        unattended-upgrades.log
auth.log                http404.log        unattended-upgrades-shutdown.log
bootstrap.log           kern.log
```

Question 4

```
student@Cis106vm:~$ cd lab6/
student@Cis106vm:~/lab6$ mkdir -p wallpapers/cars{1080p,2k,4k}
student@Cis106vm:~/lab6$ tree wallpapers/
wallpapers/
├── cars1080p
├── cars2k
└── cars4k

3 directories, 0 files
student@Cis106vm:~/lab6$
```

```
student@Cis106vm:~/lab6$ mkdir -p assets/{imgs,video}/{large,small}
student@Cis106vm:~/lab6$ tree assets/
assets/
├── imgs
│   ├── large
│   └── small
└── video
    ├── large
    └── small

6 directories, 0 files
student@Cis106vm:~/lab6$
```

```
student@Cis106vm:~/lab6$ mkdir -p docs/books/{history,math}/{fall,spring}
student@Cis106vm:~/lab6$ tree docs/
docs/
├── books
│   ├── history
│   │   ├── fall
│   │   └── spring
│   └── math
│       ├── fall
│       └── spring
└── 

7 directories, 0 files
student@Cis106vm:~/lab6$ touch docs/books/{history,math}/{fall,spring}/book.pdf
student@Cis106vm:~/lab6$ tree docs/
docs/
├── books
│   ├── history
│   │   ├── fall
│   │   │   └── book.pdf
│   │   └── spring
│   │       └── book.pdf
│   └── math
│       ├── fall
│       │   └── book.pdf
│       └── spring
│           └── book.pdf
└── 

7 directories, 4 files
student@Cis106vm:~/lab6$
```

```
student@Cis106vm:~/lab6$ mkdir -p research/{books/{math,science}/{epub,pdf},magazines/{computers,running,videogames}/{fanmade,official}}/
student@Cis106vm:~/lab6$ tree research/
research/
├── books
│   ├── math
│   │   ├── epub
│   │   └── pdf
│   └── science
│       ├── epub
│       └── pdf
└── magazines
    ├── computers
    │   ├── fanmade
    │   └── official
    ├── running
    │   ├── fanmade
    │   └── official
    └── videogames
        ├── fanmade
        └── official

17 directories, 0 files
student@Cis106vm:~/lab6$
```

```

student@Cis106vm:~$ mkdir lab6-q5
student@Cis106vm:~$ cd /
student@Cis106vm:/$ touch ~/lab6-q5/{program.py,people.csv,data.xls}
student@Cis106vm:/$ tree ~/lab6-q5/
/home/student/lab6-q5/
├── data.xls
├── people.csv
└── program.py

0 directories, 3 files
student@Cis106vm:/$ cd usr/share/
student@Cis106vm:/usr/share$ mkdir ~/lab6-q5/movies
student@Cis106vm:/usr/share$ touch ~/lab6-q5/movies/{movies.lst,marvel.txt,disney.doc}
student@Cis106vm:/usr/share$ rm ~/lab6-q5/{program.py,people.csv} ~/lab6-q5/movies/{people.csv,disney.doc,marvel.txt}
rm: cannot remove '/home/student/lab6-q5/movies/people.csv': No such file or directory
student@Cis106vm:/usr/share$ tree ~/lab6-q5/
/home/student/lab6-q5/
├── data.xls
├── movies
│   └── movies.lst
└──

1 directory, 2 files
student@Cis106vm:/usr/share$ 

```

Challenge Question

```

student@Cis106vm:~/challenge-Lab6$ mkdir -p audio/{aac,mp3}
student@Cis106vm:~/challenge-Lab6$ mkdir -p docs/{docx,pdf,xls}
student@Cis106vm:~/challenge-Lab6$ mkdir -p images/{jpg,png}
student@Cis106vm:~/challenge-Lab6$ tree
.
├── audio
│   ├── aac
│   └── mp3
├── docs
│   ├── docx
│   ├── pdf
│   └── xls
├── docs1.doc
├── docs1.docx
├── docs1.pdf
├── docs2.doc
├── docs2.docx
├── docs2.pdf
├── docs3.doc
├── docs3.docx
├── docs3.pdf
├── image1.gif
├── image1.jpg
├── image1.png
├── image2.gif
├── image2.jpg
├── image2.png
├── image3.gif
├── image3.jpg
├── image3.png
├── images
│   └── {jpg,png}
├── programs.go
├── programs.py
├── programs.rb
├── programs.sh
├── song1.aac
├── song1.mp3
├── song2.aac
├── song2.mp3
├── song3.aac
└── song3.mp3

9 directories, 28 files
student@Cis106vm:~/challenge-Lab6$ rm images
rm: cannot remove 'images': Is a directory
student@Cis106vm:~/challenge-Lab6$ rm -r images
student@Cis106vm:~/challenge-Lab6$ mkdir -p images/{jpg,png}
student@Cis106vm:~/challenge-Lab6$ tree
.
├── audio
│   ├── aac
│   └── mp3
├── docs
│   ├── docx
│   ├── pdf
│   └── xls
├── docs1.doc
├── docs1.docx
├── docs1.pdf
├── docs2.doc
└── docs2.docx

```

```
docs3.doc
docs3.docx
docs3.pdf
image1.gif
image1.jpg
image1.png
image2.gif
image2.jpg
image2.png
image3.gif
image3.jpg
image3.png
images
├── jpg
└── png
programs.go
programs.py
programs.rb
programs.sh
song1.aac
song1.mp3
song2.aac
song2.mp3
song3.aac
song3.mp3

0 directories, 28 files
student@Cis106vm:~/challenge-Lab6$ mv *.aac audio/aac/
student@Cis106vm:~/challenge-Lab6$ mv *.mp3 audio/mp3/
student@Cis106vm:~/challenge-Lab6$ tree

audio
├── aac
│   ├── song1.aac
│   ├── song2.aac
│   └── song3.aac
└── mp3
    ├── song1.mp3
    ├── song2.mp3
    └── song3.mp3

docs
├── docx
├── pdf
└── xls
docs1.doc
docs1.docx
docs1.pdf
docs2.doc
docs2.docx
docs2.pdf
docs3.doc
docs3.docx
docs3.pdf
image1.gif
image1.jpg
image1.png
image2.gif
image2.jpg
image2.png
image3.gif
image3.jpg
image3.png
```

```
image3.png
images
├── jpg
└── png
programs.go
programs.py
programs.rb
programs.sh

10 directories, 28 files
student@Cis106vm:~/challenge-Lab6$ mv *.doc docs/docx/
student@Cis106vm:~/challenge-Lab6$ mv *.pdf docs/pdf/
student@Cis106vm:~/challenge-Lab6$ mv *.xls docs/xls/
mv: cannot stat '*.xls': No such file or directory
student@Cis106vm:~/challenge-Lab6$ mv *.jpg images/jpg/
student@Cis106vm:~/challenge-Lab6$ mv *.png images/png/
student@Cis106vm:~/challenge-Lab6$ tree
.
├── audio
│   ├── aac
│   │   ├── song1.aac
│   │   ├── song2.aac
│   │   └── song3.aac
│   └── mp3
│       ├── song1.mp3
│       ├── song2.mp3
│       └── song3.mp3
├── docs
│   ├── docx
│   │   ├── docs1.docx
│   │   ├── docs2.docx
│   │   └── docs3.docx
│   ├── pdf
│   │   ├── docs1.pdf
│   │   ├── docs2.pdf
│   │   └── docs3.pdf
│   └── xls
├── docs1.docx
├── docs2.docx
├── docs3.docx
├── image1.gif
├── image2.gif
├── image3.gif
├── images
│   ├── jpg
│   │   ├── image1.jpg
│   │   ├── image2.jpg
│   │   └── image3.jpg
│   └── png
│       ├── image1.png
│       ├── image2.png
│       └── image3.png
├── programs.go
├── programs.py
├── programs.rb
└── programs.sh

10 directories, 28 files
student@Cis106vm:~/challenge-Lab6$ mv *.docx docs/docx/
student@Cis106vm:~/challenge-Lab6$ tree
```



```

audio
├── aac
│   ├── song1.aac
│   ├── song2.aac
│   └── song3.aac
└── mp3
    ├── song1.mp3
    ├── song2.mp3
    └── song3.mp3

docs
├── docx
│   ├── docs1.doc
│   ├── docs1.docx
│   ├── docs2.doc
│   ├── docs2.docx
│   ├── docs3.doc
│   └── docs3.docx
├── pdf
│   ├── docs1.pdf
│   ├── docs2.pdf
│   └── docs3.pdf
└── xls

image1.gif
image2.gif
image3.gif
images
├── jpg
│   ├── image1.jpg
│   ├── image2.jpg
│   └── image3.jpg
└── png
    ├── image1.png
    ├── image2.png
    └── image3.png

programs.go
programs.py
programs.rb
programs.sh

0 directories, 28 files
tudent@Cis106vm:~/challenge-Lab6$ mkdir images/gif
tudent@Cis106vm:~/challenge-Lab6$ mv *.gif image/gif/
mv: target 'image/gif/' is not a directory
tudent@Cis106vm:~/challenge-Lab6$ mv *.gif images/gif/
tudent@Cis106vm:~/challenge-Lab6$ tree

```

```

docs3.docx
├── pdf
│   ├── docs1.pdf
│   ├── docs2.pdf
│   └── docs3.pdf
└── xls

images
├── gif
│   ├── image1.gif
│   ├── image2.gif
│   └── image3.gif
├── jpg
│   ├── image1.jpg
│   ├── image2.jpg
│   └── image3.jpg
└── png
    ├── image1.png
    ├── image2.png
    └── image3.png

programs.go
programs.py
programs.rb
programs.sh

```

I did not see a place to put the gif files and I did not see and XLS files in the directory. So i made a gif folder inside of images and put them there.