

# Question 1

```
cis106@cis106-standardpci440fxpiix1996:~$ ls /etc/*.conf
etc/akm.conf           /etc/fuse.conf        /etc/libva.conf       /etc/named.conf       /etc/pcurses.conf     /etc/sudo.conf
etc/atmsigd.conf       /etc/gai.conf         /etc/locale.conf      /etc/nfs.conf         /etc/reflector-simple.conf /etc/sudo_logsrvd.conf
etc/brltty.conf        /etc/healthd.conf     /etc/logrotate.conf   /etc/nfsmount.conf    /etc/reflector-simple-tool.conf /etc/ts.conf
etc/dnsmasq.conf       /etc/host.conf        /etc/makepkg.conf     /etc/nlfs_cleaner.conf /etc/request-key.conf  /etc/updatedb.conf
etc/e2scrub.conf       /etc/imapd.conf       /etc/man_db.conf      /etc/nscd.conf        /etc/resolv.conf      /etc/usb_modeswitch.conf
etc/eos-rankmirrors.conf /etc/krb5.conf        /etc/mdadm.conf       /etc/nsswitch.conf    /etc/resolvconf.conf  /etc/vconsole.conf
etc/eos-script-lib-yad.conf /etc/ld.so.conf      /etc/mke2fs.conf      /etc/ntp.conf         /etc/rsyncd.conf      /etc/whois.conf
etc/eos-sendlog.conf   /etc/libao.conf       /etc/mkinitcpio.conf  /etc/openswap.conf    /etc/sensors3.conf    /etc/xattr.conf
etc/eos-update-notifier.conf /etc/libaudit.conf  /etc/mttools.conf     /etc/pacman.conf      /etc/smartd.conf
```

```
cis106@cis106-standardpci440fxpiix1996:~$ ls /etc/*.conf
etc/akm.conf           /etc/fuse.conf        /etc/libva.conf       /etc/named.conf       /etc/pcurses.conf     /etc/sudo.conf
etc/atmsigd.conf       /etc/gai.conf         /etc/locale.conf      /etc/nfs.conf         /etc/reflector-simple.conf /etc/sudo_logsrvd.conf
etc/brltty.conf        /etc/healthd.conf     /etc/logrotate.conf   /etc/nfsmount.conf    /etc/reflector-simple-tool.conf /etc/ts.conf
etc/dnsmasq.conf       /etc/host.conf        /etc/makepkg.conf     /etc/nlfs_cleaner.conf /etc/request-key.conf  /etc/updatedb.conf
etc/e2scrub.conf       /etc/imapd.conf       /etc/man_db.conf      /etc/nscd.conf        /etc/resolv.conf      /etc/usb_modeswitch.conf
etc/eos-rankmirrors.conf /etc/krb5.conf        /etc/mdadm.conf       /etc/nsswitch.conf    /etc/resolvconf.conf  /etc/vconsole.conf
etc/eos-script-lib-yad.conf /etc/ld.so.conf      /etc/mke2fs.conf      /etc/ntp.conf         /etc/rsyncd.conf      /etc/whois.conf
etc/eos-sendlog.conf   /etc/libao.conf       /etc/mkinitcpio.conf  /etc/openswap.conf    /etc/sensors3.conf    /etc/xattr.conf
etc/eos-update-notifier.conf /etc/libaudit.conf  /etc/mttools.conf     /etc/pacman.conf      /etc/smartd.conf
cis106@cis106-standardpci440fxpiix1996:~$ ls -lgHs --time-style=+%D /etc/h*.conf /etc/p*.conf
-rw-r--r-- 1 3.0K 12/16/21 /etc/pacman.conf
-rw-r--r-- 1 809 12/30/21 /etc/pcurses.conf
-rw-r--r-- 1 450 02/18/21 /etc/healthd.conf
-rw-r--r-- 1 73 12/06/21 /etc/host.conf
cis106@cis106-standardpci440fxpiix1996:~$
```

```
cis106@cis106-standardpci440fxpiix1996:~$ mkdir lab6/log-files
[cis106@cis106-standardpci440fxpiix1996 ~]$ mv lab6/*.log lab6/log-files/
[cis106@cis106-standardpci440fxpiix1996 ~]$
```

```

cis106@cis106-standardpci440fxpiix1996:~
[ cis106@cis106-standardpci440fxpiix1996 ~]$ ls -aR /usr/share/themes/ h*.theme
ls: cannot access 'h*.theme': No such file or directory
/usr/share/themes/:
.
..
Adwaita
Adwaita-dark
Arc
Arc-Dark
Arc-Darker
Arc-Lighter
Default
Emacs
Graphite
Graphite-blue
Graphite-blue-compact
Graphite-blue-compact-hdpi
Graphite-blue-compact-xhdpi
Graphite-blue-dark
Graphite-blue-dark-compact
Graphite-blue-dark-compact-hdpi
Graphite-blue-dark-compact-xhdpi
Graphite-blue-dark-hdpi
Graphite-blue-light
Graphite-blue-light-compact
Graphite-blue-light-compact-hdpi
Graphite-blue-light-compact-xhdpi
Graphite-blue-light-hdpi
Graphite-blue-light-xhdpi
Graphite-blue-xhdpi
Graphite-compact
Graphite-compact-hdpi
Graphite-compact-xhdpi
Graphite-dark
Graphite-green-dark-compact-hdpi
Graphite-green-dark-compact-xhdpi
Graphite-green-dark-hdpi
Graphite-green-dark-xhdpi
Graphite-green-hdpi
Graphite-green-light
Graphite-green-light-compact
Graphite-green-light-compact-hdpi
Graphite-green-light-compact-xhdpi
Graphite-green-light-hdpi
Graphite-green-light-xhdpi
Graphite-green-xhdpi
Graphite-hdpi
Graphite-light
Graphite-light-compact
Graphite-light-compact-hdpi
Graphite-light-compact-xhdpi
Graphite-light-hdpi
Graphite-light-xhdpi
Graphite-orange
Graphite-orange-compact
Graphite-orange-compact-hdpi
Graphite-orange-compact-xhdpi
Graphite-orange-dark
Graphite-orange-dark-compact
Graphite-orange-dark-compact-hdpi
Graphite-orange-dark-compact-xhdpi
Graphite-orange-dark-hdpi
Graphite-orange-dark-xhdpi
Graphite-orange-hdpi
Graphite-orange-light
Graphite-orange-light-compact
Graphite-orange-light-compact-hdpi
Graphite-pink-dark-compact-xhdpi
Graphite-pink-dark-hdpi
Graphite-pink-dark-xhdpi
Graphite-pink-hdpi
Graphite-pink-light
Graphite-pink-light-compact
Graphite-pink-light-compact-hdpi
Graphite-pink-light-compact-xhdpi
Graphite-pink-light-hdpi
Graphite-pink-light-xhdpi
Graphite-pink-xhdpi
Graphite-purple
Graphite-purple-compact
Graphite-purple-compact-hdpi
Graphite-purple-compact-xhdpi
Graphite-purple-dark
Graphite-purple-dark-compact
Graphite-purple-dark-compact-hdpi
Graphite-purple-dark-compact-xhdpi
Graphite-purple-dark-hdpi
Graphite-purple-dark-xhdpi
Graphite-purple-hdpi
Graphite-purple-light
Graphite-purple-light-compact
Graphite-purple-light-compact-hdpi
Graphite-purple-light-compact-xhdpi
Graphite-purple-light-hdpi
Graphite-purple-light-xhdpi
Graphite-red
Graphite-red-compact
Graphite-red-compact-hdpi
Graphite-red-compact-xhdpi
Graphite-red-light-hdpi
Graphite-red-light-xhdpi
Graphite-red-xhdpi
Graphite-teal
Graphite-teal-compact
Graphite-teal-compact-hdpi
Graphite-teal-compact-xhdpi
Graphite-teal-dark
Graphite-teal-dark-compact
Graphite-teal-dark-compact-hdpi
Graphite-teal-dark-compact-xhdpi
Graphite-teal-dark-hdpi
Graphite-teal-dark-xhdpi
Graphite-teal-hdpi
Graphite-teal-light
Graphite-teal-light-compact
Graphite-teal-light-compact-hdpi
Graphite-teal-light-compact-xhdpi
Graphite-teal-light-hdpi
Graphite-teal-light-xhdpi
Graphite-teal-xhdpi
Graphite-yellow
Graphite-yellow-compact
Graphite-yellow-compact-hdpi
Graphite-yellow-compact-xhdpi
Graphite-yellow-dark
Graphite-yellow-dark-compact
Graphite-yellow-dark-compact-hdpi
Graphite-yellow-dark-compact-xhdpi
Graphite-yellow-dark-hdpi
Graphite-yellow-dark-xhdpi
Graphite-yellow-hdpi

```

```

cis106@cis106-standardpci440fxpiix1996:~
Graphite-dark-compact
Graphite-dark-compact-hdpi
Graphite-dark-compact-xhdpi
Graphite-dark-hdpi
Graphite-dark-xhdpi
Graphite-green
Graphite-green-compact
Graphite-green-compact-hdpi
Graphite-green-compact-xhdpi
Graphite-green-dark
Graphite-green-dark-compact
Graphite-orange-light-compact-xhdpi
Graphite-orange-light-hdpi
Graphite-orange-light-xhdpi
Graphite-orange-xhdpi
Graphite-pink
Graphite-pink-compact
Graphite-pink-compact-hdpi
Graphite-pink-compact-xhdpi
Graphite-pink-dark
Graphite-pink-dark-compact
Graphite-pink-dark-compact-hdpi
Graphite-red-dark
Graphite-red-dark-compact
Graphite-red-dark-compact-hdpi
Graphite-red-dark-compact-xhdpi
Graphite-red-dark-hdpi
Graphite-red-dark-xhdpi
Graphite-red-hdpi
Graphite-red-light
Graphite-red-light-compact
Graphite-red-light-compact-hdpi
Graphite-red-light-compact-xhdpi
Graphite-yellow-light
Graphite-yellow-light-compact
Graphite-yellow-light-compact-hdpi
Graphite-yellow-light-compact-xhdpi
Graphite-yellow-light-hdpi
Graphite-yellow-light-xhdpi
Graphite-yellow-xhdpi
HighContrast

/usr/share/themes/Adwaita:
. .. gtk-2.0 gtk-3.0 index.theme

/usr/share/themes/Adwaita/gtk-2.0:
. .. apps.rc assets gtkrc hacks.rc main.rc

/usr/share/themes/Adwaita/gtk-2.0/assets:
. handle.png
. handle-vert.png
border.png line.png
button-active.png menubar-item-active.png
button-hover.png menu-border.png
button-insensitive.png menu-checkbox-checked-hover.png
button.png menu-checkbox-checked-insensitive.png
checkbox-checked-active.png menu-checkbox-checked.png
checkbox-checked-hover.png menu-checkbox-checked-hdpi
checkbox-checked-insensitive.png menu-checkbox-insensitive.png
checkbox-checked.png menu-checkbox-mixed-hover.png
checkbox-mixed-active.png menu-checkbox-mixed-insensitive.png
checkbox-mixed-hover.png menu-checkbox-mixed.png
checkbox-mixed-insensitive.png menu-checkbox.png
checkbox-mixed.png menu-pan-down-insensitive.png
checkbox-unchecked-active.png menu-pan-down.png
checkbox-unchecked-hover.png menu-pan-left-hover.png
pan-down.png pan-left-insensitive.png
pan-left.png pan-left-semi.png
pan-right-insensitive.png pan-right.png
pan-right-semi.png pan-up-insensitive.png
pan-up.png progressbar-horz.png
progressbar-horz-trough.png progressbar-vert.png
progressbar-vert-trough.png radio-checked-active.png
radio-checked-hover.png radio-checked-insensitive.png
radio-checked.png scrollbar-vert-slider-rtl.png
scrollbar-vert-trough.png scrollbar-vert-trough-rtl.png
spin-down-insensitive.png spin-down.png
spin-ltr-down-active.png spin-ltr-down-hover.png
spin-ltr-down-insensitive.png spin-ltr-down.png
spin-ltr-up-active.png spin-ltr-up-hover.png
spin-ltr-up-insensitive.png spin-ltr-up.png
spin-rtl-down-active.png spin-rtl-down-hover.png
spin-rtl-down-insensitive.png spin-rtl-down.png

```

```

cis106@cis106-standardpci440fxpiix1996:~
cis106@cis106-standardpci440fxpiix1996:~
button-insensitive.png      menu-checkbox-checked-hover.png      pan-right.png               spin-ltr-down-active.png
button.png                  menu-checkbox-checked-insensitive.png pan-right-semi.png          spin-ltr-down-hover.png
checkbox-checked-active.png    menu-checkbox-checked.png             pan-up-insensitive.png      spin-ltr-down-insensitive.png
checkbox-checked-hover.png     menu-checkbox-hover.png               progressbar-horz.png         spin-ltr-down.png
checkbox-checked-insensitive.png menu-checkbox-mixed-hover.png          progressbar-horz-trough.png spin-ltr-up-active.png
checkbox-checked.png           menu-checkbox-mixed-insensitive.png     progressbar-vert.png         spin-ltr-up-hover.png
checkbox-mixed-active.png      menu-checkbox-mixed.png               progressbar-vert-trough.png spin-ltr-up-insensitive.png
checkbox-mixed-hover.png       menu-checkbox.png                     radio-checked-active.png     spin-rtl-down-active.png
checkbox-mixed-insensitive.png menu-pan-down-insensitive.png          radio-checked-hover.png      spin-rtl-down-hover.png
checkbox-mixed.png             menu-pan-down.png                     radio-checked-insensitive.png spin-rtl-down-insensitive.png
checkbox-unchecked-active.png  menu-pan-left-hover.png               radio-checked.png            spin-rtl-down.png
checkbox-unchecked-hover.png   menu-pan-left-insensitive.png          radio-mixed-active.png        spin-rtl-up-active.png
checkbox-unchecked-insensitive.png menu-pan-left.png                     radio-mixed-hover.png         spin-rtl-up-hover.png
checkbox-unchecked.png          menu-pan-right-hover.png               radio-mixed-insensitive.png  spin-rtl-up-insensitive.png
combo-entry-ltr-button-active.png menu-pan-right-insensitive.png        radio-mixed.png              spin-rtl-up.png
combo-entry-ltr-button-hover.png menu-pan-right.png                     radio-unchecked-active.png    spin-up-insensitive.png
combo-entry-ltr-button-insensitive.png menu-pan-up-insensitive.png            radio-unchecked-hover.png     spin-up.png
combo-entry-ltr-button.png   menu-pan-up.png                       radio-unchecked-insensitive.png tab-down-active.png
combo-entry-ltr-entry-active.png menu-radio-checked-hover.png           radio-unchecked.png           tab-down.png
combo-entry-ltr-entry-insensitive.png menu-radio-checked-insensitive.png      scale-horz-focus.png          tab-horz-gap.png
combo-entry-ltr-entry.png    menu-radio-checked.png                 scale-horz-trough-active.png tab-left-active.png
combo-entry-rtl-button-active.png menu-radio-hover.png                   scale-horz-trough.png         tab-left.png
combo-entry-rtl-button-hover.png menu-radio-insensitive.png              scale-slider-active.png        tab-right-active.png
combo-entry-rtl-button-insensitive.png menu-radio-mixed-hover.png              scale-slider-hover.png         tab-right.png
combo-entry-rtl-button.png   menu-radio-mixed-insensitive.png        scale-slider-insensitive.png  tab-up-active.png
combo-entry-rtl-entry-active.png menu-radio-mixed.png                     scale-slider.png              tab-up.png
combo-entry-rtl-entry-insensitive.png menu-radio.png                          scale-vert-trough-active.png  tab-vert-gap.png
combo-entry-rtl-entry.png    notebook-combo-entry-ltr-entry-active.png scale-vert-trough.png          treeview-pan-down-active.png
entry-active.png             notebook-combo-entry-ltr-entry-insensitive.png scrollbar-horz-slider-active.png treeview-pan-down-hover.png
entry-background.png          notebook-combo-entry-ltr-entry.png        scrollbar-horz-slider-hover.png treeview-pan-down.png
entry-insensitive.png         notebook-combo-entry-rtl-entry-active.png  scrollbar-horz-slider.png      treeview-pan-up-active.png
entry.png                     notebook-combo-entry-rtl-entry-insensitive.png scrollbar-horz-trough.png       treeview-pan-up-hover.png
focus.png                    notebook-combo-entry-rtl-entry.png          scrollbar-vert-slider-active.png treeview-pan-up.png
frame-inline.png              notebook-combo-entry-active.png            scrollbar-vert-slider-active-rtl.png treeview-separator-ltr.png
frame-notebook.png            notebook-entry-insensitive.png             scrollbar-vert-slider-hover.png treeview-separator-rtl.png

```

```

/usr/share/themes/HighContrast:
total 8.0K
drwxr-xr-x 1 root root  50 Mar  2 19:24 .
drwxr-xr-x 1 root root 7.9K Mar  6 01:05 ..
drwxr-xr-x 1 root root  10 Mar  2 19:24 gtk-2.0
drwxr-xr-x 1 root root  14 Mar  2 19:24 gtk-3.0
-rw-r--r-- 1 root root 6.0K Dec 12 16:38 index.theme

/usr/share/themes/HighContrast/gtk-2.0:
total 4.0K
drwxr-xr-x 1 root root  10 Mar  2 19:24 .
drwxr-xr-x 1 root root  50 Mar  2 19:24 ..
-rw-r--r-- 1 root root 2.0K Dec 12 16:38 gtkrc

/usr/share/themes/HighContrast/gtk-3.0:
total 4.0K
drwxr-xr-x 1 root root 14 Mar  2 19:24 .
drwxr-xr-x 1 root root 50 Mar  2 19:24 ..
-rw-r--r-- 1 root root 70 Dec 12 16:38 gtk.css
[cis106@cis106-standardpci440fxpiix1996 ~]$

```

```

cis106@cis106-standardpci440fxpiix1996:~
[cis106@cis106-standardpci440fxpiix1996 ~]$ ls -A lab6/log-files/*.log
lab6/log-files/88_Application-log.log
lab6/log-files/apache01-error.log
lab6/log-files/apache22.log
lab6/log-files/endeavour-install.log
lab6/log-files/grub-fix-initrd-generation.log
lab6/log-files/httpd04.log
lab6/log-files/pacman.log
[cis106@cis106-standardpci440fxpiix1996 ~]$

```

## Question 2

```
cis106@cis106-standardpci440fxpiix1996:~  
[cis106@cis106-standardpci440fxpiix1996 ~]$ ls -A lab6/.*?  
lab6/.appveyor.yml  lab6/.dir-locals.el  lab6/.gitattributes  lab6/.jscs.json      lab6/.meta.isrunning  lab6/.PKGINFO      lab6/.travis.yml  
lab6/.auto-changelog  lab6/.editorconfig  lab6/.gitconfig      lab6/.jscsrc         lab6/.min-wd         lab6/.prettierrc.yml  lab6/.vsixmanifest  
lab6/.bash_history    lab6/.envrc         lab6/.gitignore      lab6/.jshintignore    lab6/.MTREE         lab6/.prettierrc.yaml  
lab6/.bash_logout    lab6/.eslintignore  lab6/.gitkeep        lab6/.jshintrc       lab6/.npmignore      lab6/.SRCINFO  
lab6/.bash_profile    lab6/.eslintrc      lab6/.gitmodules     lab6/.keep           lab6/.nycrc         lab6/.startup-incomplete  
lab6/.bashrc         lab6/.eslintrc.js   lab6/.hidden         lab6/.landscape.yml  lab6/.obsolete       lab6/.tern-project  
lab6/.BUILDDINFO     lab6/.eslintrc.json lab6/.htaccess       lab6/.lessshst       lab6/.padding        lab6/.tm_properties  
lab6/.coveralls.yml  lab6/.eslintrc.yml  lab6/.istanbul.yml   lab6/.metadata-v2    lab6/.parentlock     lab6/.tonic_example.js  
[cis106@cis106-standardpci440fxpiix1996 ~]$  
  
[cis106@cis106-standardpci440fxpiix1996 ~]$ ls -A lab6/  
25Games.lst          .BUILDDINFO          .eslintrc.js         file_04.sh           .htaccess            .landscape.yml       .min-wd              .prettierrc.yml     q1.png              trip22-info.doc  
apache03.err         .coveralls.yml       .eslintrc.json       file_05.sh           .istanbul.yml        last.txt            .MTREE              .prettierrc.yaml   q2.1.png            .vsixmanifest  
appveyor.yml         .dir-locals.el       .eslintrc.yml        .gitattributes       .jscs.json           .lessshst           .npmignore          q1.2.png            .SRCINFO  
auto-changelog       Document.doc         Expenses.xls         .gitconfig           .jshintrc            list.txt            .nycrc              q1.3.png            .startup-incomplete  
bash_history         .editorconfig        file_00.sh          .gitignore           .jshintignore         log-files           .obsolete            q1.4.png            .tern-project  
bash_logout         .envrc              file_01.sh          .gitkeep             .jshintrc            lost.txt            .padding            q1.5.png            .tm_properties  
bash_profile        .eslintignore       file_02.sh          .gitmodules          .keep               .metadata-v2        .parentlock         q1.6.png            .tonic_example.js  
bashrc             .eslintrc          file_03.sh          .hidden             lab6.md              .meta.isrunning    .PKGINFO            q1.7.png            .travis.yml  
[cis106@cis106-standardpci440fxpiix1996 ~]$ ls -A lab6/*.*?  
lab6/file_00.sh  lab6/file_01.sh  lab6/file_02.sh  lab6/file_03.sh  lab6/file_04.sh  lab6/file_05.sh  lab6/lab6.md  
[cis106@cis106-standardpci440fxpiix1996 ~]$  
  
[cis106@cis106-standardpci440fxpiix1996 lab6]$ ls -d l*st*?  
last.txt  list.txt  lost.txt  
[cis106@cis106-standardpci440fxpiix1996 lab6]$
```

## Question 3

```

cis106@cis106-standardpci440fxpiix1996:~$ ls lab6/[A-Z]*
lab6/Document.doc  lab6/Expenses.xls
cis106@cis106-standardpci440fxpiix1996:~$ ls lab6/*[0-9]*
lab6/25Games.lst  lab6/file_01.sh  lab6/file_04.sh  lab6/q1.2.png  lab6/q1.5.png  lab6/q1.8.png  lab6/q2.2.png  lab6/trip22-info.doc
lab6/apache03.err  lab6/file_02.sh  lab6/file_05.sh  lab6/q1.3.png  lab6/q1.6.png  lab6/q1.png  lab6/q2.3.png
lab6/file_00.sh  lab6/file_03.sh  lab6/lab6.md  lab6/q1.4.png  lab6/q1.7.png  lab6/q2.1.png  lab6/q2.4.png
cis106@cis106-standardpci440fxpiix1996:~$ ls lab6/[A-Z0-9]*
lab6/25Games.lst  lab6/Document.doc  lab6/Expenses.xls
cis106@cis106-standardpci440fxpiix1996:~$
```

## Question 4

```

cis106@cis106-standardpci440fxpiix1996:~/lab6$ cd lab6/
cis106@cis106-standardpci440fxpiix1996 lab6$ mkdir -p wallpapers/cars/{1080p,2k,4k}
cis106@cis106-standardpci440fxpiix1996 lab6$ tree wallpapers/
wallpapers/
├── cars
│   ├── 1080p
│   ├── 2k
│   └── 4k
4 directories, 0 files
cis106@cis106-standardpci440fxpiix1996 lab6$
```

```

cis106@cis106-standardpci440fxpiix1996:~/lab6$ mkdir -p assets/{imgs,video}/{large,small}
cis106@cis106-standardpci440fxpiix1996 lab6$ tree assets/
assets/
├── imgs
│   ├── large
│   └── small
└── video
    ├── large
    └── small
6 directories, 0 files
cis106@cis106-standardpci440fxpiix1996 lab6$
```

```
cis106@cis106-standardpci440fxpiix1996:~/lab6
cis106@cis106-standardpci440fxpiix1996:~/lab6
[cis106@cis106-standardpci440fxpiix1996 lab6]$ mkdir -p docs/books/{history,math}/{fall,spring}
[cis106@cis106-standardpci440fxpiix1996 lab6]$ tree docs/
docs/
├── books
│   ├── history
│   │   ├── fall
│   │   └── spring
│   └── math
│       ├── fall
│       └── spring
7 directories, 0 files
[cis106@cis106-standardpci440fxpiix1996 lab6]$ touch docs/books/{history,math}/{fall,spring}/book.pdf
[cis106@cis106-standardpci440fxpiix1996 lab6]$ tree docs/
docs/
├── books
│   ├── history
│   │   ├── fall
│   │   │   └── book.pdf
│   │   └── spring
│   │       └── book.pdf
│   └── math
│       ├── fall
│       │   └── book.pdf
│       └── spring
│           └── book.pdf
7 directories, 4 files
[cis106@cis106-standardpci440fxpiix1996 lab6]$
```

```
cis106@cis106-standardpci440fxpiix1996:~/lab6
[cis106@cis106-standardpci440fxpiix1996 lab6]$ mkdir -p research/{books/{math,science}/{ebub,pdf},magazines/{computers,runing,videogames}/{fanmade,official}}/
[cis106@cis106-standardpci440fxpiix1996 lab6]$ tree research/
research/
├── books
│   ├── math
│   │   ├── ebub
│   │   └── pdf
│   └── science
│       ├── ebub
│       └── pdf
└── magazines
    ├── computers
    │   ├── fanmade
    │   └── official
    ├── runing
    │   ├── fanmade
    │   └── official
    └── videogames
        ├── fanmade
        └── official
17 directories, 0 files
[cis106@cis106-standardpci440fxpiix1996 lab6]$
```

## Question 5

```

cis106@cis106-standardpci440fxpiix1996:usr/share
[ cis106@cis106-standardpci440fxpiix1996 ~]$ mkdir lab6-q5
[ cis106@cis106-standardpci440fxpiix1996 ~]$ cd /
[ cis106@cis106-standardpci440fxpiix1996 /]$ touch ~/lab6-q5/{program.py,people.csv,data.xls}
[ cis106@cis106-standardpci440fxpiix1996 /]$ tree ~/lab6-q5/
/home/cis106/lab6-q5/
├── data.xls
├── people.csv
└── program.py

0 directories, 3 files
[ cis106@cis106-standardpci440fxpiix1996 /]$ cd usr/share/
[ cis106@cis106-standardpci440fxpiix1996 share]$ mkdir ~/lab6-q5/movies/{movies.lst,mарvel.txt,disney.doc}
mkdir: cannot create directory '/home/cis106/lab6-q5/movies/movies.lst': No such file or directory
mkdir: cannot create directory '/home/cis106/lab6-q5/movies/mарvel.txt': No such file or directory
mkdir: cannot create directory '/home/cis106/lab6-q5/movies/disney.doc': No such file or directory
[ cis106@cis106-standardpci440fxpiix1996 share]$ mkdir ~/lab6-q5/movies
[ cis106@cis106-standardpci440fxpiix1996 share]$ mkdir ~/lab6-q5/movies/{movies.lst,mарvel.txt,disney.doc}
[ cis106@cis106-standardpci440fxpiix1996 share]$ touch ~/lab6-q5/movies/{movies.lst,mарvel.txt,disney.doc}
[ cis106@cis106-standardpci440fxpiix1996 share]$
```

```

cis106@cis106-standardpci440fxpiix1996:usr/share
[ cis106@cis106-standardpci440fxpiix1996 share]$ rm -r ~/lab6-q5/program.py ~/lab6-q5/movies/{people.csv,disney.doc,mарvel.txt}
rm: cannot remove '/home/cis106/lab6-q5/program.py': No such file or directory
rm: cannot remove '/home/cis106/lab6-q5/movies/people.csv': No such file or directory
[ cis106@cis106-standardpci440fxpiix1996 share]$ rm -r ~/lab6-q5/program.py ~/lab6-q5/movies/{people.csv,disney.doc,mарvel.txt}
bash: rm-r: command not found
[ cis106@cis106-standardpci440fxpiix1996 share]$ rm ~/lab6-q5/program.py ~/lab6-q5/movies/{people.csv,disney.doc,mарvel.txt}
rm: cannot remove '/home/cis106/lab6-q5/program.py': No such file or directory
rm: cannot remove '/home/cis106/lab6-q5/movies/people.csv': No such file or directory
rm: cannot remove '/home/cis106/lab6-q5/movies/disney.doc': No such file or directory
rm: cannot remove '/home/cis106/lab6-q5/movies/mарvel.txt': No such file or directory
[ cis106@cis106-standardpci440fxpiix1996 share]$ ls ~/lab6-q5/movies
movies.lst
[ cis106@cis106-standardpci440fxpiix1996 share]$
```

## challenge-questions

```
cis106@cis106-standardpci440fxpiix1996:~$ curl https://cis106.com/assets/lab6cq.sh | bash
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 170 100 170 0 0 1268 0 --:--:-- --:--:-- --:--:-- 1268
[cis106@cis106-standardpci440fxpiix1996 ~]$
```

```
cis106@cis106-standardpci440fxpiix1996:~$ mkdir -p challenge-Lab6/{audio/aac,mp3,docs/{docx,pdf,xls},images/jpg/png}
[cis106@cis106-standardpci440fxpiix1996 ~]$ tree challenge-Lab6
challenge-Lab6
├── audio
│   └── aac
├── docs
│   ├── docx
│   ├── pdf
│   └── xls
├── images
│   ├── jpg
│   └── png
└── mp3

10 directories, 0 files
[cis106@cis106-standardpci440fxpiix1996 ~]$
```

```
cis106@cis106-standardpci440fxpiix1996:~/challenge-Lab6/images/jpg/png$ mv image1.jpg image2.jpg image3.jpg image1.png image2.png image3.png /ChallengeQuestion-Lab6/images/
mv: target '/ChallengeQuestion-Lab6/images/' is not a directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv image1.jpg image2.jpg image3.jpg image1.png image2.png image3.png /images/
mv: target '/images/' is not a directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv image1.jpg image2.jpg image3.jpg image1.png image2.png image3.png images/
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv image1.jpg image2.jpg image3.jpg images/jpg
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv image1.jpg image2.jpg image3.jpg images/ jpg
mv: target 'jpg' is not a directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ cd images
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/
[cis106@cis106-standardpci440fxpiix1996 images]$ ls
image1.png image2.png image3.png jpg
[cis106@cis106-standardpci440fxpiix1996 images]$ ls
image1.png image2.png image3.png jpg
[cis106@cis106-standardpci440fxpiix1996 images]$ cd jpg
[cis106@cis106-standardpci440fxpiix1996 jpg]$ ls
image1.jpg image2.jpg image3.jpg png
[cis106@cis106-standardpci440fxpiix1996 jpg]$ cd ..
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/png
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg /png
mv: target '/png' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg /png
mv: target '/png' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg png/
mv: target 'png/' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/png/
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg png/png/
```



```

cis106@cis106-standardpci440fxpiix1996:~/challenge-Lab6/images/jpg/png
cis106@cis106-standardpci440fxpiix1996:~/challenge-Lab6/images/jpg/png
mv: target '/png' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg png/
mv: target 'png/' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/png/
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/png/
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg/
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ ls
image1.png image2.png image3.png  jpg
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg jpg
mv: cannot stat 'image1.jpg': No such file or directory
mv: cannot stat 'image2.jpg': No such file or directory
mv: cannot stat 'image3.jpg': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg /jpg
mv: target '/jpg' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.jpg image2.jpg image3.jpg images/jpg
mv: target 'images/jpg' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png images/ jpg
mv: cannot stat 'images/': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png / jpg
mv: cannot stat 'image1.png': No such file or directory
mv: cannot stat 'image2.png': No such file or directory
mv: cannot stat 'image3.png': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png /jpg
mv: target '/jpg' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png images/jpg
mv: target 'images/jpg' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png images/ jpg
mv: cannot stat 'images/': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png / jpg
mv: cannot stat 'image1.png': No such file or directory
mv: cannot stat 'image2.png': No such file or directory
mv: cannot stat 'image3.png': No such file or directory
mv: inter-device move failed: '/' to 'jpg'; unable to remove target: Directory not empty
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png /jpg
mv: target '/jpg' is not a directory
[cis106@cis106-standardpci440fxpiix1996 images]$ mv image1.png image2.png image3.png jpg/
mv: cannot stat 'image1.png': No such file or directory
mv: cannot stat 'image2.png': No such file or directory
mv: cannot stat 'image3.png': No such file or directory
[cis106@cis106-standardpci440fxpiix1996 images]$ ls
jpg
[cis106@cis106-standardpci440fxpiix1996 images]$ cd jpg
[cis106@cis106-standardpci440fxpiix1996 jpg]$ ls
image1.jpg image1.png image2.jpg image2.png image3.jpg image3.png  png
[cis106@cis106-standardpci440fxpiix1996 jpg]$ mv image1.png image2.png image3.png jpg/
mv: target 'jpg/' is not a directory
[cis106@cis106-standardpci440fxpiix1996 jpg]$ ls
image1.jpg image1.png image2.jpg image2.png image3.jpg image3.png  png
[cis106@cis106-standardpci440fxpiix1996 jpg]$ mv image1.png image2.png image3.png png/
[cis106@cis106-standardpci440fxpiix1996 jpg]$ ls
image1.jpg image2.jpg image3.jpg  png
[cis106@cis106-standardpci440fxpiix1996 jpg]$ cd png
[cis106@cis106-standardpci440fxpiix1996 png]$ ls
image1.png image2.png image3.png
```

```
cis106@cis106-standardpci440fxpiix1996:~  
[cis106@cis106-standardpci440fxpiix1996 ~]$ tree challenge-Lab6  
challenge-Lab6  
├── audio  
│   ├── aac  
│   │   ├── song1.aac  
│   │   ├── song2.aac  
│   │   └── song3.aac  
├── docs  
│   ├── docs1.doc  
│   ├── docs2.doc  
│   ├── docs3.doc  
│   ├── docx  
│   │   ├── docs1.docx  
│   │   ├── docs2.docx  
│   │   └── docs3.docx  
│   ├── pdf  
│   │   ├── docs1.pdf  
│   │   ├── docs2.pdf  
│   │   └── docs3.pdf  
│   └── xls  
├── images  
│   ├── image1.gif  
│   ├── image2.gif  
│   ├── image3.gif  
│   ├── jpg  
│   │   ├── image1.jpg  
│   │   ├── image2.jpg  
│   │   └── image3.jpg  
│   ├── png  
│   │   ├── image1.png  
│   │   ├── image2.png  
│   │   └── image3.png  
└── mp3  
    ├── song1.mp3  
    ├── song2.mp3  
    └── song3.mp3
```

```
cis106@cis106-standardpci440fxpiix1996:~  
├── docs1.doc  
├── docs2.doc  
├── docs3.doc  
├── docx  
│   ├── docs1.docx  
│   ├── docs2.docx  
│   └── docs3.docx  
├── pdf  
│   ├── docs1.pdf  
│   ├── docs2.pdf  
│   └── docs3.pdf  
├── xls  
├── images  
│   ├── image1.gif  
│   ├── image2.gif  
│   ├── image3.gif  
│   ├── jpg  
│   │   ├── image1.jpg  
│   │   ├── image2.jpg  
│   │   └── image3.jpg  
│   ├── png  
│   │   ├── image1.png  
│   │   ├── image2.png  
│   │   └── image3.png  
├── mp3  
│   ├── song1.mp3  
│   ├── song2.mp3  
│   └── song3.mp3  
├── programs.go  
├── programs.py  
├── programs.rb  
└── programs.sh  
10 directories, 28 files  
[cis106@cis106-standardpci440fxpiix1996 ~]$
```

```

cis106@cis106-standardpci440fxpiix1996:~/challenge-Lab6
cis106@cis106-standardpci440fxpiix1996 ~]$ ls
challenge-Lab6 Desktop lab-5 lab5-imgs Music 'Screenshot from 2022-03-06 15-45-47.png'
chrome-gnome-shell Documents lab5-audio lab5-video Pictures 'Screenshot from 2022-03-06 15-47-36.png'
cis106 Downloads lab5ChallengeQuestion lab6 Public Templates
Command-does.png lab4files lab5-docs lab6-q5 q3.1.png Videos
[cis106@cis106-standardpci440fxpiix1996 ~]$ cd challenge-Lab6
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ ls
audio docs1.doc docs1.pdf docs2.docx docs3.doc docs3.pdf image2.gif images programs.go programs.rb song1.aac song2.aac song3.aac
docs docs1.docx docs2.doc docs2.pdf docs3.docx image1.gif image3.gif mp3 programs.py programs.sh song1.mp3 song2.mp3 song3.mp3
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv song1.aac song2.aac song3.aac aduio/
mv: target 'aduio/' is not a directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv song1.aac song2.aac song3.aac aduio
mv: target 'aduio' is not a directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv song1.aac song2.aac song3.aac audio/
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ ls
audio docs1.doc docs1.pdf docs2.docx docs3.doc docs3.pdf image2.gif images programs.go programs.rb song1.mp3 song3.mp3
docs docs1.docx docs2.doc docs2.pdf docs3.docx image1.gif image3.gif mp3 programs.py programs.sh song2.mp3
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv docs1.docx docs2.docx docs3.docx docs/docsx
mv: target 'docs/docsx' is not a directory
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv docs1.docx docs2.docx docs3.docx docs/docsx
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ ls
audio docs1.doc docs2.doc docs3.doc image1.gif image3.gif mp3 programs.py programs.sh song2.mp3
docs docs1.pdf docs2.pdf docs3.pdf image2.gif images programs.go programs.rb song1.mp3 song3.mp3
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv docs1.pdf docs2.pdf docs3.pdf docs/pdf
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv song1.mp3 song2.mp3 song3.mp3 mp3/
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv image1.gif image2.gif image3.gif images/
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ mv docs1.doc docs2.doc docs3.doc docs/
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$
```

```

cis106@cis106-standardpci440fxpiix1996:~/challenge-Lab6
cis106@cis106-standardpci440fxpiix1996 ~]$ ls
challenge-Lab6 Desktop lab-5 lab5-imgs Music 'Screenshot from 2022-03-06 15-45-47.png'
chrome-gnome-shell Documents lab5-audio lab5-video Pictures 'Screenshot from 2022-03-06 15-47-36.png'
cis106 Downloads lab5ChallengeQuestion lab6 Public Templates
Command-does.png lab4files lab5-docs lab6-q5 q3.1.png Videos
[cis106@cis106-standardpci440fxpiix1996 ~]$ cd challenge-Lab6
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ ls
audio docs1.doc docs1.pdf docs2.docx docs3.doc docs3.pdf image2.gif images programs.go programs.rb song1.mp3 song3.mp3
docs docs1.docx docs2.doc docs2.pdf docs3.docx image1.gif image3.gif mp3 programs.py programs.sh song2.mp3
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$ cd audio
[cis106@cis106-standardpci440fxpiix1996 audio]$ ls
aac song1.aac song2.aac song3.aac
[cis106@cis106-standardpci440fxpiix1996 audio]$ mc song1.aac song2.aac song3.aac aac/
bash: mc: command not found
[cis106@cis106-standardpci440fxpiix1996 audio]$ mv song1.aac song2.aac song3.aac aac/
[cis106@cis106-standardpci440fxpiix1996 audio]$ ls
aac
[cis106@cis106-standardpci440fxpiix1996 audio]$ cd ..
[cis106@cis106-standardpci440fxpiix1996 challenge-Lab6]$
```