

# Lab 5

## Question 1

```
eli@cis106:~$ curl -s https://cis106.com/assets/scripts/wildcardpractice.sh | bash
--2025-12-05 21:46:24-- https://cis106.com/assets/logo100x100.png
Resolving cis106.com (cis106.com)... 185.199.108.153
Connecting to cis106.com (cis106.com)[185.199.108.153]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3520 (3.4K) [image/png]
Saving to: 'logo100x100.png'

logo100x100.png      100%[=====] 3.44K  --.-KB/s  in 0s

2025-12-05 21:46:24 (62.4 MB/s) - 'logo100x100.png' saved [3520/3520]

eli@cis106:~$ cd wildcardpractice/
eli@cis106:~/wildcardpractice$ ls *random*
_random.csv random_text.md randomtext.txt
eli@cis106:~/wildcardpractice$ ls *.csv *.txt
78food.txt _random.csv randomtext.txt Sample1234.csv sample123.csv
eli@cis106:~/wildcardpractice$ ls random*.md
random_text.md
eli@cis106:~/wildcardpractice$ ls *sample* *.md
random_text.md sample1.doc sample99.docx sample.pdf
sample123.csv sample1.xls samplejsonfile.json samplesite.html
eli@cis106:~/wildcardpractice$
```

### PRACTICE 1: The \* wildcard

1. Run This command from your home directory:  
`curl -s https://cis106.com/assets/scripts/wildcardpractice.sh | bash`
2. List all the files inside the **wildcardpractice** directory that contain the word "random" in the name.
3. List all the **csv** and **txt** files in the **wildcardpractice** directory.
4. List all the markdown files that start with the word "random"
5. List all the files that contain the word "sample" in the name and all the markdown files inside the **wildcardpractice** directory.

```
eli@cis106:~/wildcardpractice$ ls *.???
2020-08-27-capture.raw book.exe
2022-02-02-camera.jpg book.pdf
78food.txt book.xml
allfiles.lst fail.log
allfiles.lst file.log
baik.exe logo100x100.png
baik.pdf _random.csv
baik.xml randomtext.txt
beatk.exe Sample1234.csv
beatk.pdf sample123.csv
beatk.xml sample1.doc
bk.exe sample1.xls
bk.pdf sample.pdf
bk.xml Sample.pdf
eli@cis106:~/wildcardpractice$ ls .??*
.bash_history .hidden1.py .hidden2.py
.hidden1.doc .hidden2.doc .hiddenfile.txt
eli@cis106:~/wildcardpractice$ cd
eli@cis106:~$ ls wildcardpractice/b??.???
wildcardpractice/baik.exe
wildcardpractice/baik.pdf
wildcardpractice/baik.xml
wildcardpractice/beatk.exe
wildcardpractice/beatk.pdf
wildcardpractice/beatk.xml
wildcardpractice/book.exe
wildcardpractice/book.pdf
wildcardpractice/book.xml
eli@cis106:~$ ls wildcardpractice/sample?.*
wildcardpractice/sample1.doc
wildcardpractice/sample1.xls
eli@cis106:~$ ls wildcardpractice/.??*.??
wildcardpractice/.hidden1.py
wildcardpractice/.hidden2.py
eli@cis106:~$
```

### Practice 2: ? Wildcard

1. List all the files in the **wildcardpractice** directory that have a 3 letter file extension.
2. List all the files in the **wildcardpractice** directory that are hidden.
3. List all the files in the **wildcardpractice** directory that start with letter b and have two characters following and a 3 letter file extension.
4. List all the files in the **wildcardpractice** directory that start with the word "sample" and has a single character before the file extension.
5. List all the files in the **wildcardpractice** directory that are hidden and have a 2 letter file extension.

```
eli@cis106:~$ ls wildcardpractice/[a-z]*.???
wildcardpractice/allfiles.lst
wildcardpractice/baik.exe
wildcardpractice/baik.pdf
wildcardpractice/baik.xml
wildcardpractice/beatk.exe
wildcardpractice/beatk.pdf
wildcardpractice/beatk.xml
wildcardpractice/bk.exe
wildcardpractice/bk.pdf
wildcardpractice/bk.xml
wildcardpractice/book.exe
wildcardpractice/book.pdf
wildcardpractice/book.xml
eli@cis106:~$ ls wildcardpractice/[A-Z]*[0-9]*
wildcardpractice/Sample1234.csv
eli@cis106:~$ ls wildcardpractice/[0-9][0-9][0-9]
wildcardpractice/2022-02-02-camera.jpg
eli@cis106:~$ ls wildcardpractice/[!A-Z][!0-9]*
wildcardpractice/2020-08-27-capture.raw
wildcardpractice/2021-04-10-screenshot.jpeg
wildcardpractice/2022-02-02-camera.jpg
wildcardpractice/78food.txt
wildcardpractice/baik.exe
wildcardpractice/baik.pdf
wildcardpractice/baik.xml
wildcardpractice/beatk.exe
wildcardpractice/beatk.pdf
wildcardpractice/beatk.xml
wildcardpractice/bk.exe
wildcardpractice/bk.pdf
wildcardpractice/bk.xml
wildcardpractice/book.exe
wildcardpractice/book.pdf
wildcardpractice/book.xml
eli@cis106:~$ ls wildcardpractice/[[:punct:]]*
wildcardpractice/_random.csv
eli@cis106:~$
```

### Solution: Practice 3

1. `ls wildcardpractice/[a-z]*.???`
2. `ls wildcardpractice/[A-Z]*[0-9]*`
3. `ls wildcardpractice/[0-9][0-9][0-9]`
4. `ls wildcardpractice/[!A-Z][!0-9]*`
5. `ls wildcardpractice/[[:punct:]]*`

```
eli@cis106:~$ ls wildcardpractice/[a-z]*.???
wildcardpractice/allfiles.lst
wildcardpractice/baik.exe
wildcardpractice/baik.pdf
wildcardpractice/baik.xml
wildcardpractice/beatk.exe
wildcardpractice/beatk.pdf
wildcardpractice/beatk.xml
wildcardpractice/bk.exe
wildcardpractice/bk.pdf
wildcardpractice/bk.xml
wildcardpractice/book.exe
wildcardpractice/book.pdf
wildcardpractice/book.xml
eli@cis106:~$ ls wildcardpractice/[A-Z]*[0-9]*
wildcardpractice/Sample1234.csv
eli@cis106:~$ ls wildcardpractice/[0-9][0-9][0-9]
wildcardpractice/2022-02-02-camera.jpg
eli@cis106:~$ ls wildcardpractice/[!A-Z][!0-9]*
wildcardpractice/2020-08-27-capture.raw
wildcardpractice/2021-04-10-screenshot.jpeg
wildcardpractice/2022-02-02-camera.jpg
wildcardpractice/78food.txt
wildcardpractice/baik.exe
wildcardpractice/baik.pdf
wildcardpractice/baik.xml
wildcardpractice/beatk.exe
wildcardpractice/beatk.pdf
wildcardpractice/beatk.xml
wildcardpractice/bk.exe
wildcardpractice/bk.pdf
wildcardpractice/bk.xml
wildcardpractice/book.exe
wildcardpractice/book.pdf
wildcardpractice/book.xml
eli@cis106:~$ ls wildcardpractice/[[:punct:]]*
wildcardpractice/_random.csv
eli@cis106:~$
```

```
eli@cis106:~$ mkdir -pv music/{jazz,rock}/{mp3files,videos,oggfiles}/new
mkdir: created directory 'music'
mkdir: created directory 'music/jazz'
mkdir: created directory 'music/jazz/mp3files'
mkdir: created directory 'music/jazz/mp3files/new'
mkdir: created directory 'music/jazz/videos'
mkdir: created directory 'music/jazz/videos/new'
mkdir: created directory 'music/jazz/oggfiles'
mkdir: created directory 'music/jazz/oggfiles/new'
mkdir: created directory 'music/rock'
mkdir: created directory 'music/rock/mp3files'
mkdir: created directory 'music/rock/mp3files/new'
mkdir: created directory 'music/rock/videos'
mkdir: created directory 'music/rock/videos/new'
mkdir: created directory 'music/rock/oggfiles'
mkdir: created directory 'music/rock/oggfiles/new'
eli@cis106:~$ tree music/
music/
├── jazz
│   ├── mp3files
│   │   └── new
│   ├── oggfiles
│   │   └── new
│   └── videos
│       └── new
└── rock
    ├── mp3files
    │   └── new
    ├── oggfiles
    │   └── new
    └── videos
        └── new
15 directories, 0 files
```

## PRACTICE 4: Brace Expansion

Create the following directory structure in your home directory:



```
eli@cis106:~$ tree music/
music/
├── jazz
│   ├── mp3files
│   │   └── new
│   ├── oggfiles
│   │   └── new
│   └── videos
│       └── new
└── rock
    ├── mp3files
    │   └── new
    ├── oggfiles
    │   └── new
    └── videos
        └── new
14 directories, 0 files
```

## Question 2

```
eli@cis106:~$ mkdir -pv wallpapers/cars/{1080p,2k,4k}
mkdir: created directory 'wallpapers'
mkdir: created directory 'wallpapers/cars'
mkdir: created directory 'wallpapers/cars/1080p'
mkdir: created directory 'wallpapers/cars/2k'
mkdir: created directory 'wallpapers/cars/4k'
eli@cis106:~$ tree wallpapers/
wallpapers/
└── cars
    ├── 1080p
    ├── 2k
    └── 4k
5 directories, 0 files
eli@cis106:~$ mkdir -pv assets/{imgs,videos}/{large,small}
mkdir: created directory 'assets'
mkdir: created directory 'assets/imgs'
mkdir: created directory 'assets/imgs/large,small'
mkdir: created directory 'assets/videos'
mkdir: created directory 'assets/videos/large,small'
eli@cis106:~$ tree assets/
assets/
├── imgs
│   ├── large,small
│   └── large,small
└── videos
    ├── large,small
    └── large,small
5 directories, 0 files
eli@cis106:~$ _
```

### Linux Fundamentals

#### LABS

- Lab 1 - Learning Markdown
- Lab 2 - Installing Debian 13
- Lab 3 - The GNOME DE and The Bash Shell
- Lab 4 - Software Installation and Shell Scripting
- Lab 5 - The Linux File system
- Lab 6 - Managing files and directories
- Lab 7 - Wildcards & Brace Expansion
- Lab 8 - Handling Text Files Part 2
- Lab 8 - Handling Text Files part 1

#### DOCUMENTATION

### Question 2: Challenge 1

Use brace expansion to create the following direc

#### Directory 1

```
wallpapers/
└── cars
    ├── 1080p
    ├── 2k
    └── 4k
```

#### Directory 2

```
assets/
├── imgs
│   ├── large
│   └── small
└── video
    ├── large
    └── small
```

## Question 3

```
eli@cis106:~/website_ch1_lab7$ mkdir -pv {app,assets/{css,images},components,config/deploy,data,pages}
mkdir: created directory 'app'
mkdir: created directory 'assets'
mkdir: created directory 'assets/css'
mkdir: created directory 'assets/images'
mkdir: created directory 'components'
mkdir: created directory 'config'
mkdir: created directory 'config/deploy'
mkdir: created directory 'data'
eli@cis106:~/website_ch1_lab7$ mv *.css assets/css/
eli@cis106:~/website_ch1_lab7$ mv *.{jpg,png,svg,raw} assets/images/
eli@cis106:~/website_ch1_lab7$ mv *er.html components/ mv *bar.html components/
mv: cannot move 'components/' to a subdirectory of itself, 'components/components'
mv: cannot stat 'mv': No such file or directory
eli@cis106:~/website_ch1_lab7$ mv *bar.html components/ mv *er.html components/
mv: cannot stat '*bar.html': No such file or directory
mv: cannot move 'components/' to a subdirectory of itself, 'components/components'
mv: cannot stat 'mv': No such file or directory
eli@cis106:~/website_ch1_lab7$ mv *er.html components/
mv: cannot stat '*er.html': No such file or directory
eli@cis106:~/website_ch1_lab7$ mv *er.html components/
mv: cannot stat '*er.html': No such file or directory
eli@cis106:~/website_ch1_lab7$ mv *.conf* config/
eli@cis106:~/website_ch1_lab7$ mv *.sh config/deploy/
eli@cis106:~/website_ch1_lab7$ mv post*.h??? pages/
eli@cis106:~/website_ch1_lab7$ mv *.[Jj][Ss][Oo][Nn] data/
eli@cis106:~/website_ch1_lab7$ _
```

```
eli@cis106:~/website_ch1_lab7$ tree -a
.
├── app.html
├── app.js
├── app.js
├── assets
│   ├── css
│   │   ├── _reset.css
│   │   ├── _style.css
│   │   └── _theme.css
│   ├── images
│   │   ├── cart.svg
│   │   ├── footer.jpg
│   │   ├── hero.png
│   │   ├── item1.raw
│   │   └── item2.jpg
│   ├── components
│   │   ├── footer.html
│   │   ├── header.html
│   │   ├── navbar.html
│   │   └── sidebar.html
│   ├── APP.conf
│   ├── APP.conf.bk
│   ├── config
│   │   ├── backup.sh
│   │   ├── build.sh
│   │   └── deploy.sh
│   ├── data
│   │   ├── index.html
│   │   ├── posts.json
│   │   ├── products.json
│   │   ├── robots.txt
│   │   └── users.json
├── config
├── deploy
├── data
├── index.html
├── posts.json
├── products.json
├── robots.txt
├── users.json
├── _reset.css
├── _style.css
├── _theme.css
└── ...
```

```
eli@cis106:~/website_ch1_lab7$ ls *.[Jj][Ss][Oo][Nn]
posts.json products.json users.json
eli@cis106:~/website_ch1_lab7$ _
```