

# Week Report 6

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## Wildcards.

### \* wildcard

The \* Wildcard matches from 0 to any number of characters.

- Examples:
  - List all the text file in a directory
    - `ls *.txt`
  - List all the files that start with the word file
    - `ls file.*`
  - Copy all the mp4 files
    - `cp Downloads/*.mp4 ~/Videos/Movies/`

### ? wildcard

The ? Wildcard matches a single character.

- Examples:
  - List all the files that have a 3 letter file extension
    - `ls *.???`
  - List all the files that have two characters between b and k
    - `ls b??k*`
  - To list all hidden files
    - `ls ./.*??*`

### [] Wildcard

The [] Wildcard matches a single character from a set

- Examples:
  - To match all the files that have a vowel after letter f.
    - `ls f[aeiou]*`
  - To match all the files whose name has at least one number
    - `ls *[0-9]*`
  - To match all files whose names begins with a letter from a-p or start with letter s or c
    - `ls [a-psc]*`

## Brace Expansion

The {} expansion allows you to generate arbitrary strings to use with commands

- Examples:
  - To create a whole directory structure in a single command.
    - `mkdir -p music/{jazz,rock}/{mp3files,videos,oggfiles}/new{1..3}`

- To create a N number of files use.
  - `touch file{A..z}.txt`
- Remove multiple files in a single directory
  - `rm -r {dir1,dir2,dir3,file.txt,file.py}`

## Practice

- Practice 5

```
mrgutierrez@cis106vm: ~/wildcardpractice
mrgutierrez@cis106vm:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2022-10-26 22:18:30-- 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

2022-10-26 22:18:30 (33.4 MB/s) - 'logo100x100.png' saved [3520/3520]

mrgutierrez@cis106vm:~$ ls wildcardpractice/*practice*
ls: cannot access 'wildcardpractice/*practice*': No such file or directory
mrgutierrez@cis106vm:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv  wildcardpractice/random_text.md  wildcardpractice/randomtext.txt
mrgutierrez@cis106vm:~$ ls wildcardpractice/*.txt wildcardpractice/*.csv
wildcardpractice/78food.txt  wildcardpractice/randomtext.txt  wildcardpractice/sample123.csv
wildcardpractice/_random.csv  wildcardpractice/sample1234.csv
mrgutierrez@cis106vm:~$ ls random*.md
ls: cannot access 'random*.md': No such file or directory
mrgutierrez@cis106vm:~$ cd wildcardpractice/
mrgutierrez@cis106vm:~/wildcardpractice$ ls random*.md
random_text.md
mrgutierrez@cis106vm:~/wildcardpractice$ ls *sample* *.md
random_text.md  sample1.doc  sample99.docx  sample.pdf
sample123.csv  sample1.xls  samplejsonfile.json  samplesite.html
mrgutierrez@cis106vm:~/wildcardpractice$
```

- Practice 6

```
mrgutierrez@cis106vm: ~/wildcardpractice
mrgutierrez@cis106vm:~/wildcardpractice$ ls *.*??
2020-08-27-capture.raw  Allfiles.lst  beatk.exe  bk.pdf  book.xml  _random.csv  sample1.doc
2022-02-02-camera.jpg  baik.exe     beatk.pdf  bk.xml  fail.log  randomtext.txt  sample1.xls
78food.txt             baik.pdf     beatk.xml  book.exe  file.log  Sample1234.csv  sample.pdf
allfiles.lst           baik.xml     bk.exe    book.pdf  logo100x100.png  sample123.csv  Sample.pdf
mrgutierrez@cis106vm:~/wildcardpractice$ ls .??*
.bash_history  .hidden1.doc  .hidden1.py  .hidden2.doc  .hidden2.py  .hiddenFile.txt
mrgutierrez@cis106vm:~/wildcardpractice$ ls b*.*??
baik.exe  baik.xml  beatk.pdf  bk.exe  bk.xml  book.pdf
baik.pdf  beatk.exe  beatk.xml  bk.pdf  book.exe  book.xml
mrgutierrez@cis106vm:~/wildcardpractice$ ls sample?.*
sample1.doc  sample1.xls
mrgutierrez@cis106vm:~/wildcardpractice$ ls .??*.*??
.hidden1.py  .hidden2.py
mrgutierrez@cis106vm:~/wildcardpractice$
```

- Practice 7

```
mrkutierrez@cis106vm: ~/wildcardpractice
mrkutierrez@cis106vm:~/wildcardpractice$ ls [a-z]*.???
allfiles.lst  baik.xml  beatk.xml  bk.xml  book.xml  logo100x100.png  sample1.doc
baik.exe     beatk.exe  bk.exe    book.exe  fail.log  randomtext.txt  sample1.xls
baik.pdf     beatk.pdf  bk.pdf    book.pdf  file.log  sample123.csv   sample.pdf
mrkutierrez@cis106vm:~/wildcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv
mrkutierrez@cis106vm:~/wildcardpractice$ ls [0-9][0-9][0-9][0-9]*
2020-08-27-capture.raw  2021-04-10-screenshot.jpeg  2022-02-02-camera.jpg
mrkutierrez@cis106vm:~/wildcardpractice$ ls [!AEIOUaeiou]8
ls: cannot access '[!AEIOUaeiou]8': No such file or directory
mrkutierrez@cis106vm:~/wildcardpractice$ ls [!AEIOUaeiou]*
2020-08-27-capture.raw  baik.xml  bk.xml  logo100x100.png  sample1.doc  samplesite.html
2021-04-10-screenshot.jpeg  beatk.exe  book.exe  _random.csv  sample1.xls
2022-02-02-camera.jpg      beatk.pdf  book.pdf  random_text.md  sample99.docx
78food.txt                beatk.xml  book.xml  randomtext.txt  samplejsonfile.json
baik.exe                  bk.exe    fail.log  Sample1234.csv  sample.pdf
baik.pdf                 bk.pdf    file.log  sample123.csv   Sample.pdf
mrkutierrez@cis106vm:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
mrkutierrez@cis106vm:~/wildcardpractice$
```