

Week Report 6

Wildcards

* Wildcard

The * wildcard matches from anything to nothing with any number of characters.

- Examples:
 - List all the files in a dir. that end in .txt
 - `ls *.txt`
 - List all the files in a dir. that end in .txt and .pdf
 - `ls *.txt *.pdf`
 - List all the files in a dir. that have any letter(s) before or after the string "file."
 - `ls *file.*`

? Wildcard

The ? wildcard matches precisely one character

- Examples:
 - List all hidden files in a current dir.
 - `ls ./.*?*`
 - List all hidden files in a parent directory.
 - `ls ../.*?*`
 - List all files that have two characters between letters b and k
 - `ls b??k*`

[] Wildcard

The [] wildcard matches a single character in a range.

- Examples:
 - Match all files that have a vowel after the letter f.
 - `ls f[aeiou]*`
 - Match all files that do not have a vowel after the letter f.
 - `ls f[!aeiou]*`
 - Match all files whose name has at least one number.
 - `ls *[0-9]*`

Brace Expansion

Brace expansion is used for generating arbitrary strings to use with commands.

- Examples:
 - Create an entire dir. structure in a single command.
 - `mkdir -p music/{jazz,rock}/{mp3files,videos,oggfiles}/new{1..3}`
 - Create N number of files.

- touch website{1..5}.html
- Remove multiple files in a single dir.
 - rm -r {dir1,dir2,dir3,file.text,file.py}

Practice

Practice 5

```
1:jeremyurena@cis106vm: ~/wildcardpractice
jeremyurena@cis106vm:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2023-11-18 11:53:35-- 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

2023-11-18 11:53:35 (88.4 MB/s) - 'logo100x100.png' saved [3520/3520]

jeremyurena@cis106vm:~$ ls
bakery      Hello.txt      lab5-video     Public
bakeryr     Hi.txt         mail           snap
box         lab4files      maybeso.txt    sunflower.mp3
cis106      Lab-5          Music          Templates
Desktop     lab5-audio     mydoglikespizza.txt  Videos
Documents   lab5ChallengeQuestion  myfiles        website
Downloads   lab5-docs      no.txt         wildcardpractice
games.csv   lab5-imgs      Pictures       yes.txt

jeremyurena@cis106vm:~$ cd wildcardpractice/
jeremyurena@cis106vm:~/wildcardpractice$ ls *random*
_random.csv  random_text.md  randomtext.txt
jeremyurena@cis106vm:~/wildcardpractice$ ls *.csv *.txt
78food.txt  _random.csv  randomtext.txt  Sample1234.csv  sample123.csv
jeremyurena@cis106vm:~/wildcardpractice$ ls random*.md
random_text.md
jeremyurena@cis106vm:~/wildcardpractice$ ls *sample* *.md
random_text.md  sample1.doc  sample99.docx  sample.pdf
sample123.csv  sample1.xls  samplejsonfile.json  samplesite.html
jeremyurena@cis106vm:~/wildcardpractice$
```

Practice 6

```
1:jeremyurena@cis106vm: ~/wildcardpractice
jeremyurena@cis106vm:~$ cd wildcardpractice/
jeremyurena@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
jeremyurena@cis106vm:~/wildcardpractice$ ls .???*
.bash_history  .hidden1.doc  .hidden1.py  .hidden2.doc  .hidden2.py  .hiddenFile.txt
jeremyurena@cis106vm:~/wildcardpractice$ ls b??.*??
ls: cannot access 'b??.*??': No such file or directory
jeremyurena@cis106vm:~/wildcardpractice$ ls b??*.*??
baik.exe  baik.pdf  baik.xml  beatk.exe  beatk.pdf  beatk.xml  book.exe  book.pdf  book.xml
jeremyurena@cis106vm:~/wildcardpractice$ ls sample?.*
sample1.doc  sample1.xls
jeremyurena@cis106vm:~/wildcardpractice$ ls .??*.*?
.hidden1.py  .hidden2.py
jeremyurena@cis106vm:~/wildcardpractice$
```

Practice 7

```
1/1 + [T] [R] Tilix: jeremyurena@cis106vm: ~/wildcardpractice [Q] [≡] [←] [▢] [X]
jeremyurena@cis106vm: ~/wildcardpractice
jeremyurena@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
jeremyurena@cis106vm:~/wildcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv
jeremyurena@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
jeremyurena@cis106vm:~/wildcardpractice$ ls [!AEIOUaeiou]*
2020-08-27-capture.raw    baik.pdf  bk.exe  book.xml  random_text.md  sample1.xls  samplesite.html
2021-04-10-screenshot.jpeg  baik.xml  bk.pdf  fail.log  randomtext.txt  sample99.docx
2022-02-02-camera.jpg     beatk.exe bk.xml  file.log  Sample1234.csv  samplejsonfile.json
78food.txt               beatk.pdf book.exe logo100x100.png  sample123.csv  sample.pdf
baik.exe                 beatk.xml book.pdf  _random.csv    sample1.doc    Sample.pdf
jeremyurena@cis106vm:~/wildcardpractice$ ls [[*punct*]]*
ls: cannot access '[[*punct*]]*': No such file or directory
jeremyurena@cis106vm:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
jeremyurena@cis106vm:~/wildcardpractice$
```