

Week Report 6

Wildcards

* Wildcard

the * wildcard matches from 0 to any number of characters.

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

? Wildcard

the ? wildcard matches one character

- Examples:
 - list all hidden files in current directory
 - 'ls ./.*?*' '
 - list all hidden files in the parent directory
 - 'ls ../.*?*' '
 - list all files that have two characters between letter b and k
 - 'ls b??k*' '

[] Wildcard

the {} wildcard match a single character in a range

- Examples:
 - match all files that have a vowel after letter f
 - 'ls f[aeiou]* '
 - match all files that do not have a vowel after letter f
 - 'ls f[!aeiou]* '
 - match all files whose name begins with any 3 combinations of numbers and the current user's username
 - 'ls [0-9][0-9][0-9]\$USER '

Brace Expansion

Brace expansion uses the same symbols as the wildcard but is not the same. Brace expansion is used to be able to create strings in a command.

- Examples:
 - create a whole directory 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 directory
 - rm -r {dir1,dir2,dir3,file.txt,file.py}

Practice

Practice 1

```
jhopkinswalker@cis106:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2023-11-27 11:13:19-- 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

2023-11-27 11:13:19 (67.1 MB/s) - 'logo100x100.png' saved [3520/3520]

jhopkinswalker@cis106:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv      wildcardpractice/randomtext.txt
wildcardpractice/random_text.md

jhopkinswalker@cis106:~$ ls wildcardpractice/ *.csv
games2.csv  games.csv

wildcardpractice/:
2020-08-27-capture.raw      beatk.exe  fail.log      sample1.xls
2021-04-10-screenshot.jpeg beatk.pdf  file.log      sample99.docx
2022-02-02-camera.jpg     beatk.xml  logo100x100.png samplejsonfile.json
78food.txt                 bk.exe    _random.csv  sample.pdf
allfiles.lst               bk.pdf    random_text.md Sample.pdf
Allfiles.lst               bk.xml    randomtext.txt samplesite.html
baik.exe                   book.exe  Sample1234.csv
baik.pdf                   book.pdf  sample123.csv
baik.xml                   book.xml  sample1.doc

jhopkinswalker@cis106:~$ ls wildcardpractice/*.txt
wildcardpractice/78food.txt  wildcardpractice/randomtext.txt

jhopkinswalker@cis106:~$ cd wildcardpractice
jhopkinswalker@cis106:~/wildcardpractice$ ls random*.md
random_text.md

jhopkinswalker@cis106:~/wildcardpractice$ ls *sample* *.md*
random_text.md  sample1.doc  sample99.docx  sample.pdf
sample123.csv  sample1.xls  samplejsonfile.json  samplesite.html
```

Practice 2

```

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

jhopkinswalker@cis106:~/wilddcardpractice$ ls .???
.bash_history .hidden1.py .hidden2.py
.hidden1.doc .hidden2.doc .hiddenFile.txt

jhopkinswalker@cis106:~/wilddcardpractice$ ls b???*.???
baik.exe baik.xml beatk.pdf book.exe book.xml
baik.pdf beatk.exe beatk.xml book.pdf

jhopkinswalker@cis106:~/wilddcardpractice$ ls sample?.*
sample1.doc sample1.xls

jhopkinswalker@cis106:~/wilddcardpractice$ ls .???*.??
ls.???*.??: command not found

jhopkinswalker@cis106:~/wilddcardpractice$ ls .???*.??
.hidden1.py .hidden2.py

jhopkinswalker@cis106:~/wilddcardpractice$ █

```

Practice 3

```

jhopkinswalker@cis106:~/wilddcardpractice$ ls [a-z]*.???
allfiles.lst  beatk.pdf  book.exe  logo100x100.png  sample.pdf
baik.exe      beatk.xml  book.pdf  randomtext.txt
baik.pdf      bk.exe    book.xml  sample123.csv
baik.xml      bk.pdf    fail.log  sample1.doc
beatk.exe     bk.xml    file.log  sample1.xls

jhopkinswalker@cis106:~/wilddcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv

jhopkinswalker@cis106:~/wilddcardpractice$ ls [0-9][0-9][0-9][0-9]*
2020-08-27-capture.raw  2022-02-02-camera.jpg
2021-04-10-screenshot.jpeg

jhopkinswalker@cis106:~/wilddcardpractice$ ls [!AEIOUaeiou]*
2020-08-27-capture.raw  bk.pdf  Sample1234.csv
2021-04-10-screenshot.jpeg  bk.xml  sample123.csv
2022-02-02-camera.jpg      book.exe  sample1.doc
78food.txt                 book.pdf  sample1.xls
baik.exe                   book.xml  sample99.docx
baik.pdf                   fail.log  samplejsonfile.json
baik.xml                   file.log  sample.pdf
beatk.exe                  logo100x100.png  Sample.pdf
beatk.pdf                  _random.csv  samplesite.html
beatk.xml                  random_text.md
bk.exe                     randomtext.txt

jhopkinswalker@cis106:~/wilddcardpractice$ ls [[:punct:]]*
random.csv

```