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Week Report 6

Wildcards

* Wildcard

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

- Examples:
 - List all the text files 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 hidden files in the current directory:
 - `ls ../.??*`
 - List all the files that have 2 characters between letter b and k:
 - `ls b??k*`
 - List all the files that have a 3 letter file extension:
 - `ls *.???`

[] Wildcard

The [] wildcard matches a single character to a set.

- Examples:
 - Match all files that have a vowel after letter f:
 - `ls f[aeiou]*`
 - Match all files that have a range of letters after f:
 - `ls f[a-z]*`
 - Match all files whose name begins with any 3 combination of numbers and the current user's username:
 - `ls [0-9][0-9][0-9]$USER`

Brace Expansion

The brace expansion is not a wild card but another feature of bash that allows you to generate arbitrary strings to use with commands.

- Examples:
 - Create a whole directory structure in a single command:
 - `mkdir -p music/{jazz,rock}/{mp3files,videos,oggfiles}/new{1..3}`
 - Create a N Number of files use:
 - `touch website{1..5}.html`
 - Remove multiple files in a single directory
 - `rm -r {dir1,dir2,dir3,file.txt,file.py}`

Practice 5

```
daakwete@cis106:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2023-11-12 01:23:18-- 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

2023-11-12 01:23:19 (11.8 MB/s) - 'logo100x100.png' saved [3520/3520]

daakwete@cis106:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv wildcardpractice/random_text.md wildcardpractice/randomtext.txt
daakwete@cis106:~$ ls wildcardpractice/*.txt wildcardpractice/*.csv
wildcardpractice/78food.txt wildcardpractice/_random.csv wildcardpractice/randomtext.txt wildcardpractice/sample1234.csv wildcardpractice/sample123.csv
daakwete@cis106:~$ ls wildcardpractice/random*.md
wildcardpractice/random_text.md
daakwete@cis106:~$ ls wildcardpractice/*sample* wildcardpractice/*.md
wildcardpractice/random_text.md wildcardpractice/sample1.doc wildcardpractice/sample99.docx wildcardpractice/sample.pdf
wildcardpractice/sample123.csv wildcardpractice/sample1.xls wildcardpractice/samplejsonfile.json wildcardpractice/samplesite.html
daakwete@cis106:~$
```

Practice 6

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

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

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

daakwete@cis106:~/wildcardpractice$ ls sample?.*
sample1.doc sample1.xls

daakwete@cis106:~/wildcardpractice$ ls .??*.??
.hidden1.py .hidden2.py

daakwete@cis106:~/wildcardpractice$
```

Practice 7

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

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

daakwete@cis106:~/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

daakwete@cis106:~/wildcardpractice$ ls [!AEIOUaeiou]*
2020-08-27-capture.raw 78food.txt baik.xml beatk.xml bk.xml book.xml logo100x100.png randomtext.txt sample1.doc samplejsonfile.json samplesite.html
2021-04-10-screenshot.jpeg baik.exe beatk.exe bk.exe book.exe fail.log _random.csv sample1234.csv sample1.xls sample.pdf
2022-02-02-camera.jpg baik.pdf beatk.pdf bk.pdf book.pdf file.log random_text.md sample123.csv sample99.docx Sample.pdf

daakwete@cis106:~/wildcardpractice$ ls [:punct:]*
_random.csv: command not found

daakwete@cis106:~/wildcardpractice$ ls [[:punct:]]*
_random.csv

daakwete@cis106:~/wildcardpractice$
```