

Week Report 6

Wild Cards

Wild Card *

An asterisk/star alone matches anything and nothing and matches any number of characters. Examples of when to use the * wildcard When you want to list all files with a particular file extension. When you do not remember the complete name of a file but you remember a portion of the name. When you want to copy, move, or remove all files that match a particular naming convention. **Examples** `ls *.txt` lists all file that end in .txt `ls *.txt .pdf` list all the files that end in .txt and .pdf `ls file.` lists all the files with the string "file" regardless of their file extension.

Wild Card ?

The question mark wildcard matches precisely one character. The question mark wildcard proves very useful when working with hidden files. **Examples** `ls ./.*` lists all the hidden files in the current directory `ls ../.*` list all the files in the parent directory `ls *.???` list all the files that have a 3 letter file extension

Wild Card []

The brackets wildcard match a single character in a range. The brackets wildcard use the exclamation mark to reverse the match. For example, match everything except vowels `[!aeiou]` or any character except numbers `[!0-9]` **Examples** `ls [a-psc]*` match all files whose name begins with a letter a-p or start with letters s or c `ls [a-fp-z]*` match all files whose name begins with any of those two sets of characters: letters from a-f or p-z `ls f[aeiou]*` match all files that have a vowel after letter f

Practice Questions

Practice 1

```

maperez14692@CIS106VM: ~
maperez14692@CIS106VM:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2022-10-29 23:06:55-- 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

2022-10-29 23:06:55 (23.6 MB/s) - 'logo100x100.png' saved [3520/3520]

maperez14692@CIS106VM:~$ ls wildcardpractice/ *random*
ls: cannot access '*random*': No such file or directory
wildcardpractice/:
2020-08-27-capture.raw      baik.exe    bk.exe     fail.log    Sample1234.csv    sample.pdf
2021-04-10-screenshot.jpeg baik.pdf    bk.pdf     file.log    sample123.csv     Sample.pdf
2022-02-02-camera.jpg     baik.xml    bk.xml     logo100x100.png sample1.doc        samplesite.html
78food.txt                 beatk.exe  book.exe   _random.csv sample1.xls
allfiles.lst               beatk.pdf  book.pdf   random_text.md sample99.docx
Allfiles.lst               beatk.xml  book.xml   randomtext.txt samplejsonfile.json

maperez14692@CIS106VM:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv wildcardpractice/random_text.md wildcardpractice/randomtext.txt
maperez14692@CIS106VM:~$ ls wildcardpractice/*.csv wildcardpractice/*.txt
wildcardpractice/78food.txt wildcardpractice/randomtext.txt wildcardpractice/sample123.csv
wildcardpractice/_random.csv wildcardpractice/sample1234.csv
maperez14692@CIS106VM:~$ ls random*.md
ls: cannot access 'random*.md': No such file or directory
maperez14692@CIS106VM:~$ ls wildcardpractice/random*.md
wildcardpractice/random_text.md
maperez14692@CIS106VM:~$ ls wildcardpractice/*sample* wildcardpractice/*.md
wildcardpractice/random_text.md wildcardpractice/sample1.xls wildcardpractice/sample.pdf
wildcardpractice/sample123.csv wildcardpractice/sample99.docx wildcardpractice/samplesite.html
wildcardpractice/sample1.doc wildcardpractice/samplejsonfile.json
maperez14692@CIS106VM:~$

```

Practice 2

```

maperez14692@CIS106VM: ~/wildcardpractice
maperez14692@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

maperez14692@CIS106VM:~/wildcardpractice$ ls .*?*
.bash_history .hidden1.doc .hidden1.py .hidden2.doc .hidden2.py .hiddenFile.txt
maperez14692@CIS106VM:~/wildcardpractice$ ls b??*.???
baik.exe baik.pdf baik.xml beatk.exe beatk.pdf beatk.xml book.exe book.pdf book.xml
maperez14692@CIS106VM:~/wildcardpractice$ ls sample?.*
sample1.doc sample1.xls
maperez14692@CIS106VM:~/wildcardpractice$ ls .??*.??
.hidden1.py .hidden2.py
maperez14692@CIS106VM:~/wildcardpractice$

```

Practice 3

```

maperez14692@CIS106VM: ~/wildcardpractice
maperez14692@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
maperez14692@CIS106VM:~/wildcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv
maperez14692@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
maperez14692@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
maperez14692@CIS106VM:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
maperez14692@CIS106VM:~/wildcardpractice$

```

Brace Expansion

Brace expansion `{}` is not a wildcard but another feature of bash that 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{jazz,rock}/{mp3files,videos,oggfiles}/new{1..3}` To create a N number of files use: `touch website{1..5}.html touch file{A..Z}.txt touch file{001..10}.py touch file{{a..z},{0..10}}.js` Remove multiple files in single directory `rm -r {dir1,dir2,dir3,file.txt,file.py}`