

# Week Report 6

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## Wildcards

**The `*` wildcard:** The star alone matches anything and nothing and matches any number of characters.

**Examples** To list all files with .txt: `ls *.txt`

To move all files containing .txt to the Documents directory: `mv *.txt Documents`

To list all files in the Documents directory containing the word "games": `ls ~/Documents/*games*`

**The `?` wildcard:** Matches precisely one character.

**Examples** To list all hidden files: `ls .??*`

To list all files that have a three-letter file extension: `ls *.???`

To list all files that have two characters between letter g and s: `ls g??s*`

**The `[]` wildcard:** Matches a character in range. The exclamation point reverses the match.

**Examples** To match all files that contain a vowel after the letter s: `ls s[aeiou]*`

To match all files that do not contain a vowel after the letter s: `ls s[!aeiou]*`

To match all files whose name has at least one number: `ls *[0-9]*`

## Brace Expansion

Brace expansion is another feature of bash that lets you create arbitrary strings to use with commands.

**Examples** To make a whole directory structure in a single command: `mkdir -p games/{shooter,rpg} music/{rock,lo-fi} pictures/{photos-of-my-dog,family}`

To create a certain number of files: `touch food{1..4}.png`

To remove multiple files in a directory: `rm -r {games,music,pictures,docs.docx,words.txt}`

## Practice 5

```

kevin@kevins-VirtualBox:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2023-11-16 20:52:24-- 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

2023-11-16 20:52:24 (89.6 MB/s) - 'logo100x100.png' saved [3520/3520]

```

```

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

```

## Practice 6

```

kevin@kevins-VirtualBox:~/wildcardpractice$ 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
kevin@kevins-VirtualBox:~/wildcardpractice$ ls .??*
.bash_history .hidden1.py .hidden2.py
.hidden1.doc .hidden2.doc .hiddenFile.txt
kevin@kevins-VirtualBox:~/wildcardpractice$ b??*.???
baik.exe: command not found
kevin@kevins-VirtualBox:~/wildcardpractice$ ls b??*.???
baik.exe baik.xml beatk.pdf book.exe book.xml
baik.pdf beatk.exe beatk.xml book.pdf
kevin@kevins-VirtualBox:~/wildcardpractice$ sample?.*
sample1.doc: command not found
kevin@kevins-VirtualBox:~/wildcardpractice$ ls sample?.*
sample1.doc sample1.xls
kevin@kevins-VirtualBox:~/wildcardpractice$ ls .??*.??
.hidden1.py .hidden2.py
kevin@kevins-VirtualBox:~/wildcardpractice$

```

## Practice 7

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