Week Report 6

Wildcards

* Wildcard

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

- Examples:
  - List all the text file 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 metacharacter matches prcisely one character.

- Examples:
  - list all the files that have 3 characters and are followed by the word file in the name.

```
ajtavarez@cis106:~/praciceWildcards$ touch 123file.txt
ajtavarez@cis106:~/praciceWildcards$ ls ???file*
123file.txt
ajtavarez@cis106:~/praciceWildcards$ _
```

[] Wildcard

The brackets wildcard match a single character in a range.

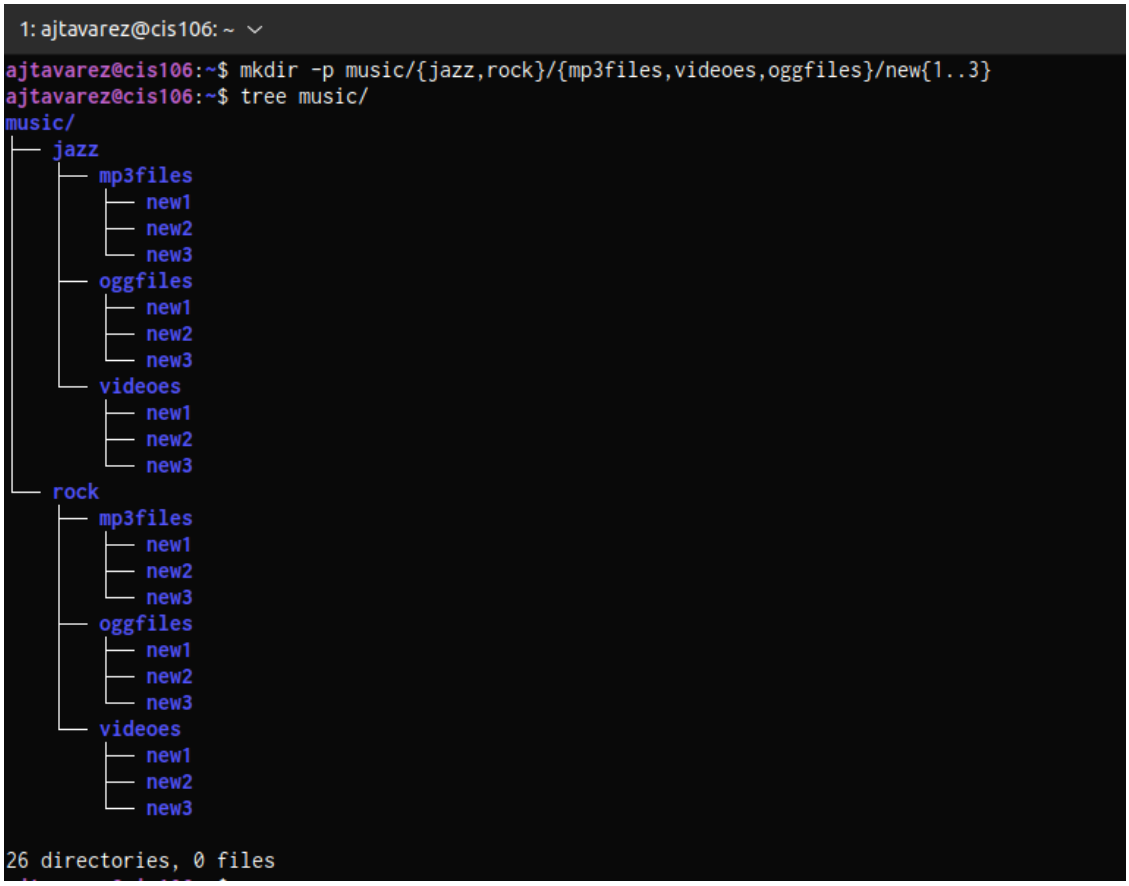
- Examples:
  - To match all the files that have a vowel after letter f:
    - `ls f[aeiou]*`
  - To match all files that do not have a vowel after letter f:
    - `ls f[!aeiou]*`
  - To match all the files that have a range of letters after f:
    - `ls f[a-z]*`

Brace Expansion

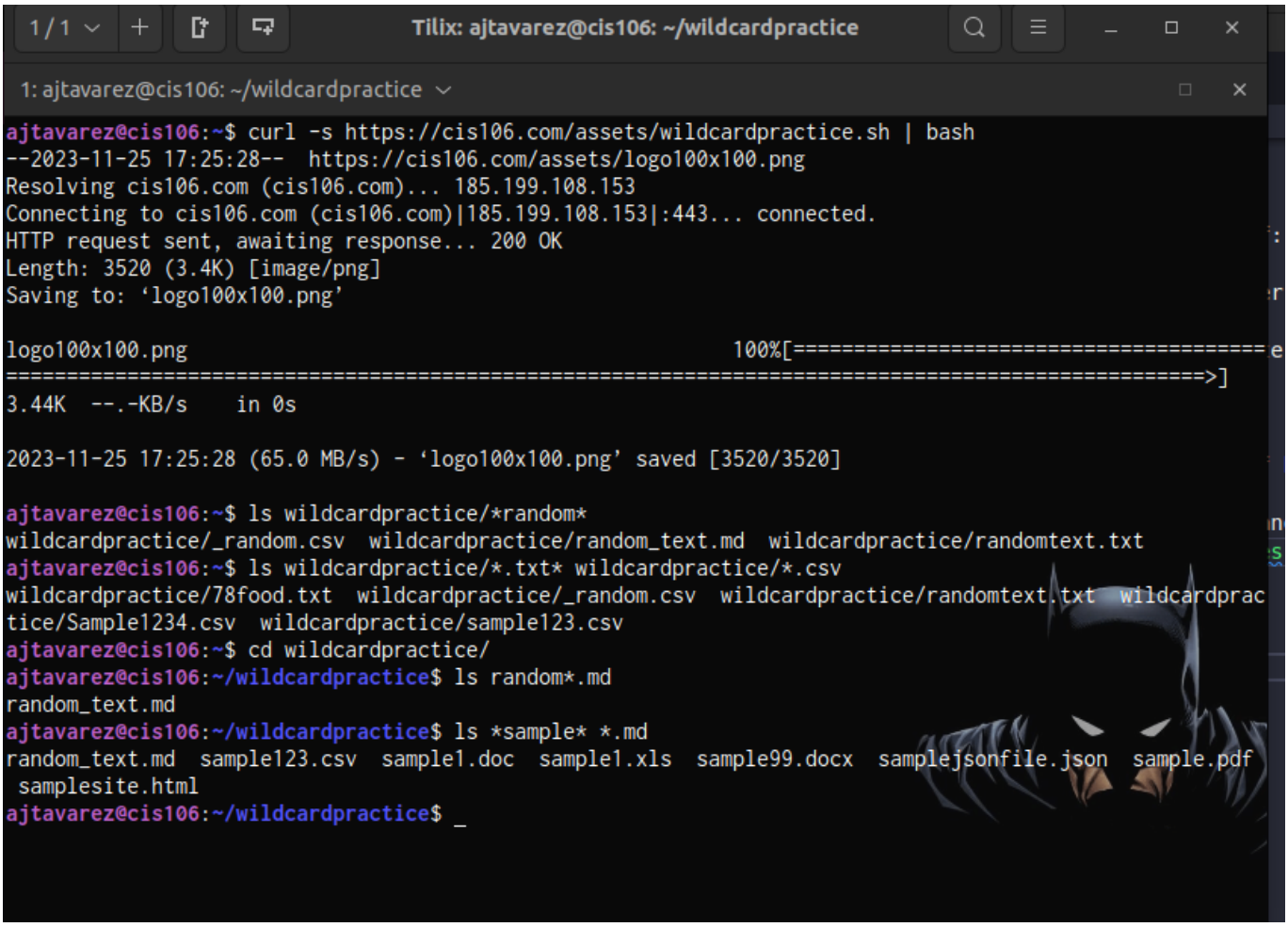
Brace expansion {} is not a wildcard but another feature of bash that allows you to generate arbitrary strings to use with commands.

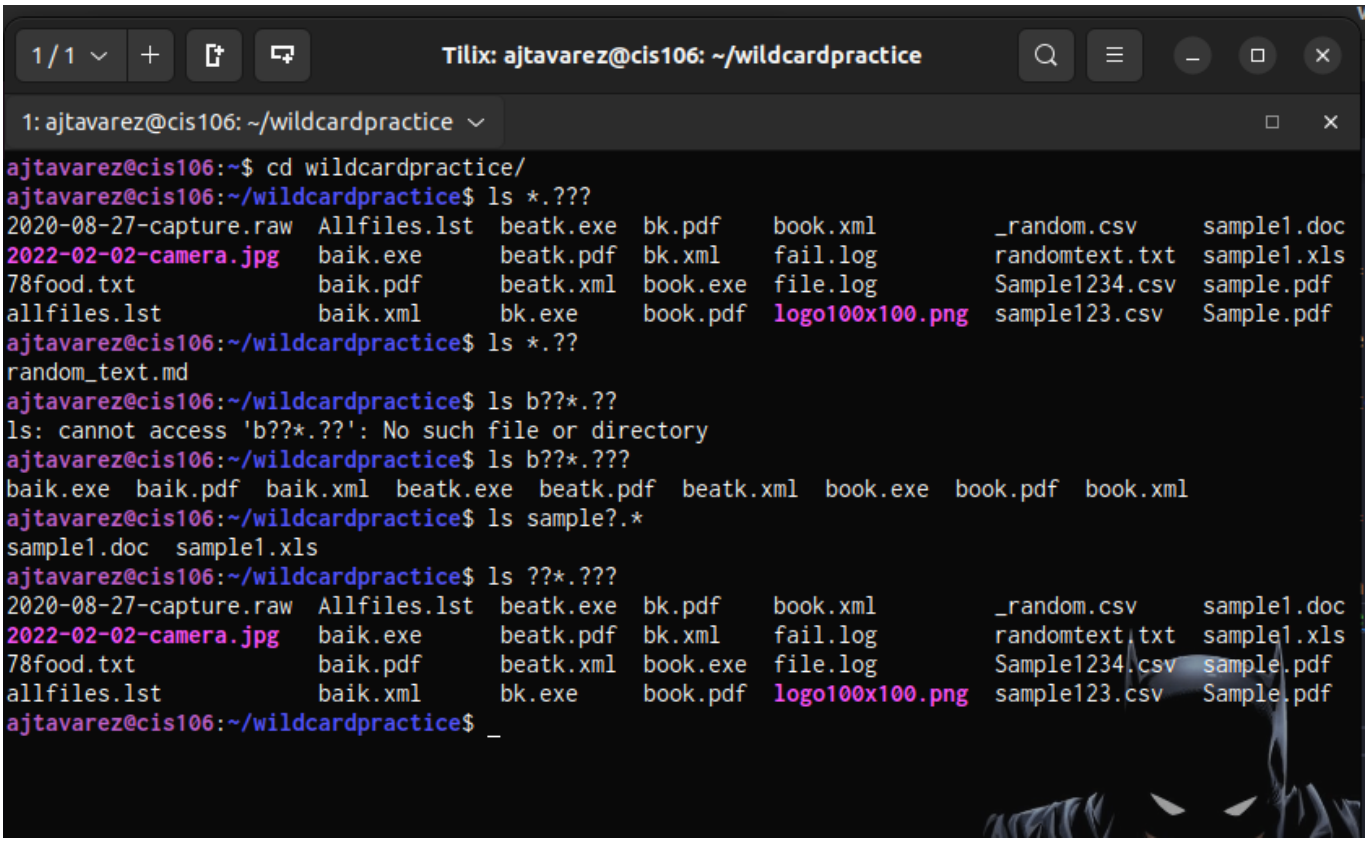
- Examples:
  - To create a whole directory structure in a single command:

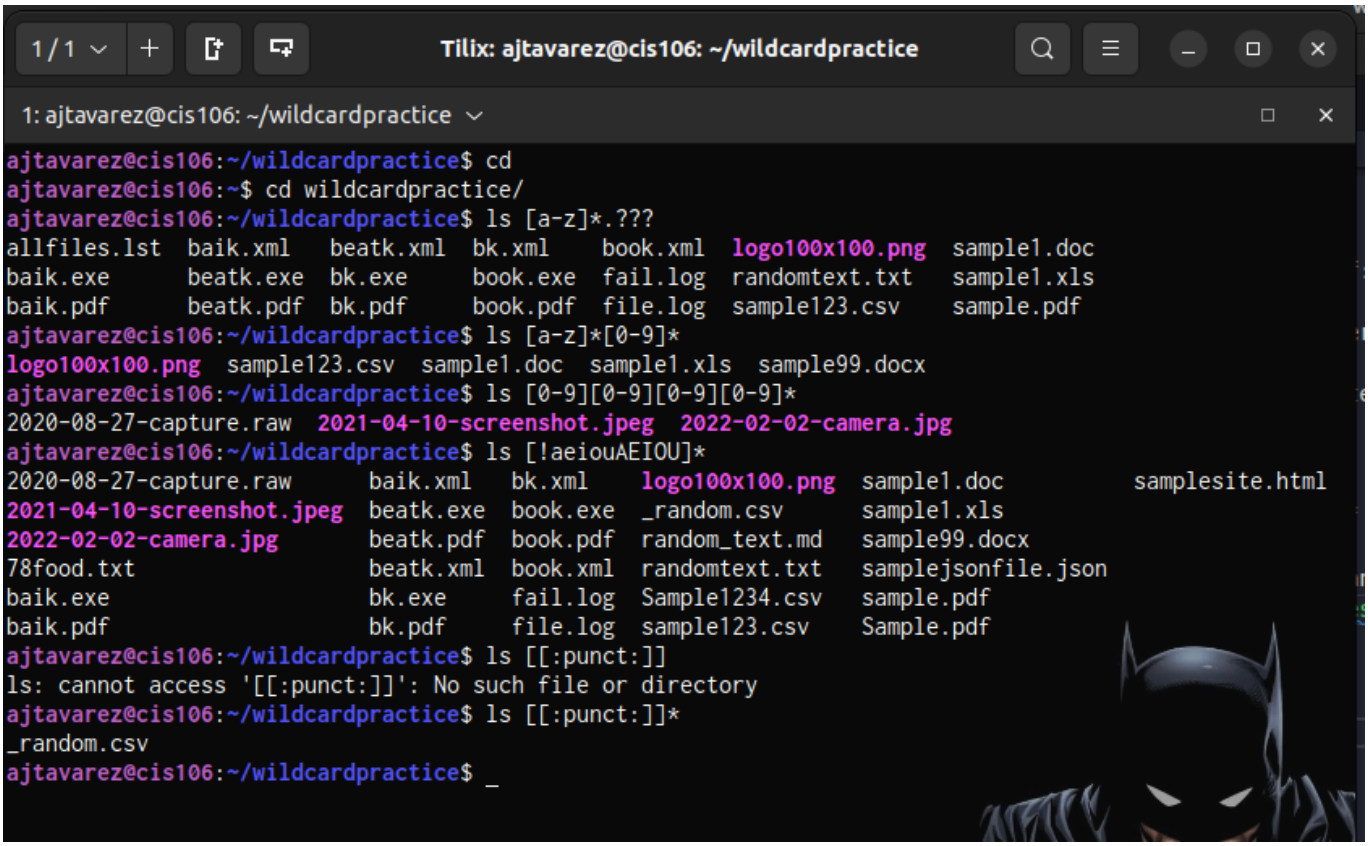
- `mkdir -p music/{jazz,rock}/{mp3files,videoes,oggfiles}/new{1..3}`



Practice


1 / 1
Tilix: ajtavarez@cis106: ~/wildcardpractice
1: ajtavarez@cis106: ~/wildcardpractice
ajtavarez@cis106:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2023-11-25 17:25:28-- 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
2023-11-25 17:25:28 (65.0 MB/s) - 'logo100x100.png' saved [3520/3520]
ajtavarez@cis106:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv wildcardpractice/random_text.md wildcardpractice/randomtext.txt
ajtavarez@cis106:~$ ls wildcardpractice/*.txt* wildcardpractice/*.csv
wildcardpractice/78food.txt wildcardpractice/_random.csv wildcardpractice/randomtext.txt wildcardpractice/Sample1234.csv wildcardpractice/sample123.csv
ajtavarez@cis106:~$ cd wildcardpractice/
ajtavarez@cis106:~/wildcardpractice$ ls random*.md
random_text.md
ajtavarez@cis106:~/wildcardpractice$ ls *sample* *.md
random_text.md sample123.csv sample1.doc sample1.xls sample99.docx samplejsonfile.json sample.pdf samplesite.html
ajtavarez@cis106:~/wildcardpractice$ _


1 / 1
Tilix: ajtavarez@cis106: ~/wildcardpractice
1: ajtavarez@cis106: ~/wildcardpractice
ajtavarez@cis106:~$ cd wildcardpractice/
ajtavarez@cis106:~/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
ajtavarez@cis106:~/wildcardpractice$ ls *.??
random_text.md
ajtavarez@cis106:~/wildcardpractice$ ls b??*.??
ls: cannot access 'b??*.??': No such file or directory
ajtavarez@cis106:~/wildcardpractice$ ls b??*.???
baik.exe baik.pdf baik.xml beatk.exe beatk.pdf beatk.xml book.exe book.pdf book.xml
ajtavarez@cis106:~/wildcardpractice$ ls sample?.*
sample1.doc sample1.xls
ajtavarez@cis106:~/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
ajtavarez@cis106:~/wildcardpractice$ _


Tilix: ajtavarez@cis106: ~/wildcardpractice
1: ajtavarez@cis106: ~/wildcardpractice
ajtavarez@cis106:~/wildcardpractice$ cd
ajtavarez@cis106:~$ cd wildcardpractice/
ajtavarez@cis106:~/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
ajtavarez@cis106:~/wildcardpractice$ ls [a-z]*[0-9]*
logo100x100.png sample123.csv sample1.doc sample1.xls sample99.docx
ajtavarez@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
ajtavarez@cis106:~/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
ajtavarez@cis106:~/wildcardpractice$ ls [[:punct:]]
ls: cannot access '[[:punct:]]': No such file or directory
ajtavarez@cis106:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
ajtavarez@cis106:~/wildcardpractice$ _