Week Report 6

Wildcards

Wildcard represents letters and characters used to specify a file name for searches.

* Wildcard

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

- Examples:
  - List all the files that end in .txt
    - `ls *.txt`
  - list all the files start with the string "file." regardless of their file extension
    - `ls file.*`
  - list all the file that have any letter before the string "file." and after as well
    - `ls *file.*`

? Wildcard

The ? wilcard matches a single character.

- Examples:
  - List all the files that have a single character between letter f and l
    - `ls f?l*`
  - list all the files that have a two character 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 in a range The [] wilcard use an ! mark to reverse the match

- Examples:
  - List all files that have a vowel after letter f
    - `ls f[aeiou]`
  - List all the files who name does not have a number in their file name
    - `ls *[!0-9].*`
  - List all files whose name begins with any 3 combination of numbers and the current user's username
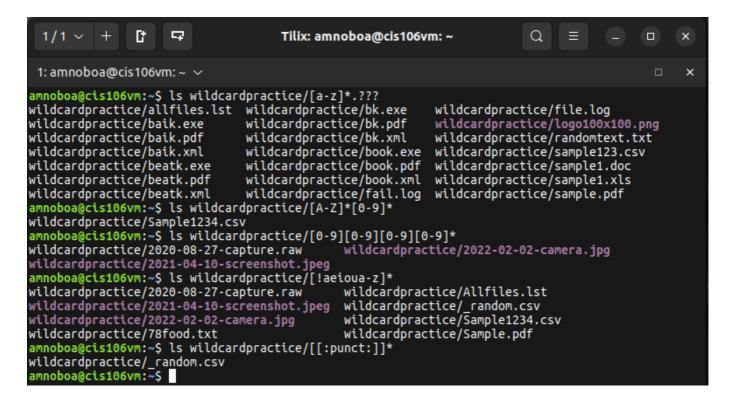   - `ls [0-9][0-9][0-9]$USER`

Practices

Practice 5

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Practice 7

```
amnoboa@cis106vm:~$ ls wildcardpractice/[a-z]*.???
wildcardpractice/allfiles.lst    wildcardpractice/bk.exe     wildcardpractice/file.log
wildcardpractice/baik.exe        wildcardpractice/bk.pdf     wildcardpractice/logo100x100.png
wildcardpractice/baik.pdf        wildcardpractice/bk.xml     wildcardpractice/randomtext.txt
wildcardpractice/baik.xml        wildcardpractice/book.exe   wildcardpractice/sample123.csv
wildcardpractice/beatk.exe       wildcardpractice/book.pdf   wildcardpractice/sample1.doc
wildcardpractice/beatk.pdf       wildcardpractice/book.xml   wildcardpractice/sample1.xls
wildcardpractice/beatk.xml       wildcardpractice/fail.log   wildcardpractice/sample.pdf
amnoboa@cis106vm:~$ ls wildcardpractice/[A-Z]*[0-9]*
wildcardpractice/Sample1234.csv
amnoboa@cis106vm:~$ ls wildcardpractice/[0-9][0-9][0-9][0-9]*
wildcardpractice/2020-08-27-capture.raw       wildcardpractice/2022-02-02-camera.jpg
wildcardpractice/2021-04-10-screenshot.jpeg
amnoboa@cis106vm:~$ ls wildcardpractice/[!aeioua-z]*
wildcardpractice/2020-08-27-capture.raw       wildcardpractice/Allfiles.lst
wildcardpractice/2021-04-10-screenshot.jpeg   wildcardpractice/_random.csv
wildcardpractice/2022-02-02-camera.jpg        wildcardpractice/Sample1234.csv
wildcardpractice/78food.txt                   wildcardpractice/Sample.pdf
amnoboa@cis106vm:~$ ls wildcardpractice/[[:punct:]]*
wildcardpractice/_random.csv
amnoboa@cis106vm:~$
```

{} Brace Expansion

The {} is not a wildcard but another feature of bash that allows you to generate arbitrary string to use with commands

- Examples:
    - To create a whole directory structure in a single command
        - `mkdir -p music/{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},{0..10}}.js`
    - Remove multiple files in a single directory
        - `rm -r {dir1,dir2,dir3,file.txt,file.py}`