Week Report 6

Wildcards

* Wildcard

The * wild card 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 matches a single character

- Examples
    - list all the files that have 3 characters and are followed by the word file in the name
        - `ls ???File*`
    - list all hidden files
        - `ls ../.??*`
    - list all the files with a four letter file extension
        - `ls *.????`

[] Wildcard

The [] wildcard matches a single character in a range. Uses the ! to reverse the match.

- Examples:
    - to match all files whose name has at least one number
        - `ls *[0-9]*`
    - to match all files whose name begins with a letter from a-p
        - `ls [a-p]*`
    - to match all files that have a vowel after letter m
        - `ls m[aeiou]*`

Brace Expansion

The 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/{punk,rock}/{mp3files,videos,oggfiles}/new{1..3}`

- to create N number of files
  - `touch image{1..5}.jpg`
- to remove multiple files in a single directory
  - `rm -r {dir1,di2,dir3,file.txt}`

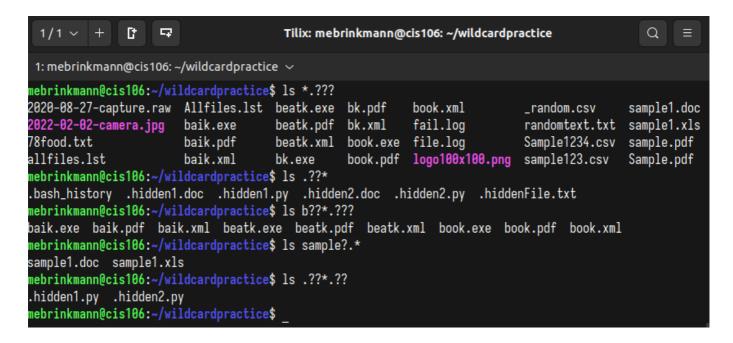## Practice

Practice 5

Practice 6

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1: mebrinkmann@cis106: ~/wildcardpractice ∨

mebrinkmann@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
mebrinkmann@cis106:~/wildcardpractice$ ls .??*
.bash_history  .hidden1.doc  .hidden1.py  .hidden2.doc  .hidden2.py  .hiddenFile.txt
mebrinkmann@cis106:~/wildcardpractice$ ls b??*.???
baik.exe  baik.pdf  baik.xml  beatk.exe  beatk.pdf  beatk.xml  book.exe  book.pdf  book.xml
mebrinkmann@cis106:~/wildcardpractice$ ls sample?.*
sample1.doc  sample1.xls
mebrinkmann@cis106:~/wildcardpractice$ ls .??*.??
.hidden1.py  .hidden2.py
mebrinkmann@cis106:~/wildcardpractice$ _
```

Practice 7

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1: mebrinkmann@cis106: ~/wildcardpractice ∨                                                   ▢   ✕

mebrinkmann@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
mebrinkmann@cis106:~/wildcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv
mebrinkmann@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
mebrinkmann@cis106:~/wildcardpractice$ ls [!AEIOUaeiou]
ls: cannot access '[!AEIOUaeiou]': No such file or directory
mebrinkmann@cis106:~/wildcardpractice$ ls [!AEIOUaeiou]*
2020-08-27-capture.raw       baik.pdf   bk.exe    book.xml   random_text.md   sample1.xls      samplesite.html
2021-04-10-screenshot.jpeg   baik.xml   bk.pdf    fail.log   randomtext.txt   sample99.docx
2022-02-02-camera.jpg        beatk.exe  bk.xml    file.log   Sample1234.csv   samplejsonfile.json
78food.txt                   beatk.pdf  book.exe  logo100x100.png  sample123.csv  sample.pdf
baik.exe                     beatk.xml  book.pdf  _random.csv  sample1.doc      Sample.pdf
mebrinkmann@cis106:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
mebrinkmann@cis106:~/wildcardpractice$ _
```