Week Report 6

Wildcards

* Wildcard

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

- Examples:
    - List all .doc files.
        - `ls *.doc`
    - List files that have any character before and after the string "test."
        - `ls *test.*`
    - List files that start with the string "movie" regardless of their extension.
        - `ls movie.*`

? Wildcard

The ? wildcard matches precisely one character.

- Examples:
    - List all hidden files in the current directory.
        - `ls ./.??*`
    - List all files that have two characters between the letters f and e.
        - `ls f??e*`
    - List all files with a three letter extension
        - `ls *.???`

[] Wildcard

The [] wildcard match a single character in a range.

- Examples:
    - Match all files that do not have a vowel after f
        - `ls f[!aeiou]`
    - Match all files whose name has at least one number.
        - `ls *[0-9].*`
    - Match all files whose name begins with a letter from a-e or start with letters t or x:
        - `ls [a-etx]*`

Brace Expansion

Not a wild card but, allows you to generate arbitrary string to use with commands.

- Examples:
    - Create a whole direction structure in a single command
        - `mkdir -p music/{jazz,rock}/{mp3files,videos,raw}/new{1..3}`
    - Remove multiple files in a single directory

- rm -r {dir1,dir2,dir3,file.txt,file.py}
  - Create multiple files
    - touch file{1..10}.txt

Practices

Practice 5

```
kmtorres46747@cis106:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2023-04-19 00:25:47--  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

2023-04-19 00:25:47 (26.4 MB/s) - 'logo100x100.png' saved [3520/3520]

kmtorres46747@cis106:~$ cd wildcardpractice/
kmtorres46747@cis106:~/wildcardpractice$ ls *random*
_random.csv  random_text.md  randomtext.txt
kmtorres46747@cis106:~/wildcardpractice$ ls *.csv *.txt
78food.txt  _random.csv  randomtext.txt  Sample1234.csv  sample123.csv
kmtorres46747@cis106:~/wildcardpractice$ ls random*.md
random_text.md
kmtorres46747@cis106:~/wildcardpractice$ ls *sample* *.md
random_text.md  sample1.doc  sample99.docx       sample.pdf
sample123.csv   sample1.xls  samplejsonfile.json  samplesite.html
kmtorres46747@cis106:~/wildcardpractice$ _
```

Practice 6

```
kmtorres46747@cis106:~/wildcardpractice$ ls *.???
2020-08-27-capture.raw  78food.txt   Allfiles.lst  baik.pdf  beatk.exe  beatk.xml  bk.pdf   book.exe  book.xml  file.log       _random.csv   Sample1234.csv  sample1.doc  sample.pdf
2022-02-02-camera.jpg   allfiles.lst  baik.exe     baik.xml  beatk.pdf  bk.exe     bk.xml   book.pdf  fail.log  logo100x100.png  randomtext.txt  sample123.csv   sample1.xls  Sample.pdf
kmtorres46747@cis106:~/wildcardpractice$ ls ./.??*
./.bash_history  ./.hidden1.doc  ./.hidden1.py  ./.hidden2.doc  ./.hidden2.py  ./.hiddenFile.txt
kmtorres46747@cis106:~/wildcardpractice$ ls b??*.???
baik.exe  baik.pdf  baik.xml  beatk.exe  beatk.pdf  beatk.xml  book.exe  book.pdf  book.xml
kmtorres46747@cis106:~/wildcardpractice$ ls sample?.*
sample1.doc  sample1.xls
kmtorres46747@cis106:~/wildcardpractice$ ls .??*.??
.hidden1.py  .hidden2.py
kmtorres46747@cis106:~/wildcardpractice$ _
```

Practice 7

```
kmtorres46747@cis106:~/wildcardpractice$ ls [a-z]*.???
allfiles.lst  baik.pdf  beatk.xml  bk.pdf  book.exe  book.xml  file.log       randomtext.txt  sample1.doc  sample.pdf
baik.exe      baik.xml  beatk.pdf  bk.exe  bk.xml    book.pdf  fail.log  logo100x100.png  sample123.csv   sample1.xls
kmtorres46747@cis106:~/wildcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv
kmtorres46747@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
kmtorres46747@cis106:~/wildcardpractice$ ls [!AEIOUaeiou]*
2020-08-27-capture.raw      78food.txt  baik.xml  beatk.xml  bk.xml     book.xml  logo100x100.png  randomtext.txt  sample1.doc   samplejsonfile.json  samplesite.html
2021-04-10-screenshot.jpeg  baik.exe    beatk.exe  bk.exe     book.exe  fail.log  _random.csv      Sample1234.csv  sample1.xls   sample.pdf
2022-02-02-camera.jpg       baik.pdf    beatk.pdf  bk.pdf     book.pdf  file.log  random_text.md   sample123.csv   sample99.docx  Sample.pdf
kmtorres46747@cis106:~/wildcardpractice$ ls [[:punct:]]
ls: cannot access '[[:punct:]]': No such file or directory
kmtorres46747@cis106:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
kmtorres46747@cis106:~/wildcardpractice$ _
```