Week Report 6

Wildcards:

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

* Wildcard:

a star alone matches anything and nothing and matches any number of characters.

Examples:

- List all the text files 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:

matches one character and very useful when working with hidden files.

Examples:

- List all hidden files in the current directory
  - ls ./.??*
- List all 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:

match a single character in a range and use the exclamation mark to reverse the match.

Examples:

- List all files that have a vowel after letter f
  - ls f[aeiou]*
- List all files whose name begins with a letter from a-p or start with letters s or c
  - ls [a-psc]*
- List all files whose name begins with any 3 combinations of numbers and the current user's username
  - ls [0-9][0-9]$USER

{} Brace Expansion:

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,videos,oggfiles}/new{1..3}
- To create a N number of files use
    - touch website{1..5}.html
    - touch file{A..Z}.txt
    - touch file{001.10}.py
    - touch file{{a..z},{0..10}}.js
- Remove multiple files in a single directory
    - rm -r {dir1,dir2,dir3,file.txt,file.py}

Practice:

Practice 5:

```
sskisijara@CIS106vm: ~/wildcardpractice

sskisijara@CIS106vm:~$ curl -s https://cis106.com/assets/wildcardpractice.sh | bash
--2022-11-01 19:20:34--  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 0.02s

2022-11-01 19:20:34 (193 KB/s) - 'logo100x100.png' saved [3520/3520]

sskisijara@CIS106vm:~$ ls wildcardpractice/*random*
wildcardpractice/_random.csv  wildcardpractice/random_text.md  wildcardpractice/randomtext.txt
sskisijara@CIS106vm:~$ ls wildcardpractice/*.txt wildcardpractice/*.csv
wildcardpractice/78food.txt   wildcardpractice/randomtext.txt   wildcardpractice/sample123.csv
wildcardpractice/_random.csv  wildcardpractice/Sample1234.csv
sskisijara@CIS106vm:~$ cd wildcardpractice/
sskisijara@CIS106vm:~/wildcardpractice$ ls random*.md
random_text.md
sskisijara@CIS106vm:~/wildcardpractice$ ls *sample* *.md
random_text.md   sample1.doc   sample99.docx       sample.pdf
sample123.csv    sample1.xls   samplejsonfile.json   samplesite.html
sskisijara@CIS106vm:~/wildcardpractice$
```

Practice 6:

```
sskisijara@CIS106vm: ~/wildcardpractice

sskisijara@CIS106vm:~/wildcardpractice$ ls *???
2020-08-27-capture.raw     baik.exe   bk.exe     fail.log       Sample1234.csv       sample.pdf
2021-04-10-screenshot.jpeg baik.pdf   bk.pdf     file.log       sample123.csv        Sample.pdf
2022-02-02-camera.jpg       baik.xml   bk.xml     logo100x100.png  sample1.doc          samplesite.html
78food.txt                  beatk.exe  book.exe   _random.csv    sample1.xls
allfiles.lst                beatk.pdf  book.pdf   random_text.md  sample99.docx
Allfiles.lst                beatk.xml  book.xml   randomtext.txt  samplejsonfile.json
sskisijara@CIS106vm:~/wildcardpractice$ ls .??*
.bash_history  .hidden1.doc  .hidden1.py  .hidden2.doc  .hidden2.py  .hiddenFile.txt
sskisijara@CIS106vm:~/wildcardpractice$ ls b??*.???
baik.exe  baik.pdf  baik.xml  beatk.exe  beatk.pdf  beatk.xml  book.exe  book.pdf  book.xml
sskisijara@CIS106vm:~/wildcardpractice$ ls sample?.*
sample1.doc   sample1.xls
sskisijara@CIS106vm:~/wildcardpractice$ ls .??*.??
.hidden1.py  .hidden2.py
sskisijara@CIS106vm:~/wildcardpractice$
```

Practice 7:

```
sskisijara@CIS106vm:~/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
sskisijara@CIS106vm:~/wildcardpractice$ ls [A-Z]*[0-9]*
Sample1234.csv
sskisijara@CIS106vm:~/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
sskisijara@CIS106vm:~/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
sskisijara@CIS106vm:~/wildcardpractice$ ls [[:punct:]]*
_random.csv
sskisijara@CIS106vm:~/wildcardpractice$
```