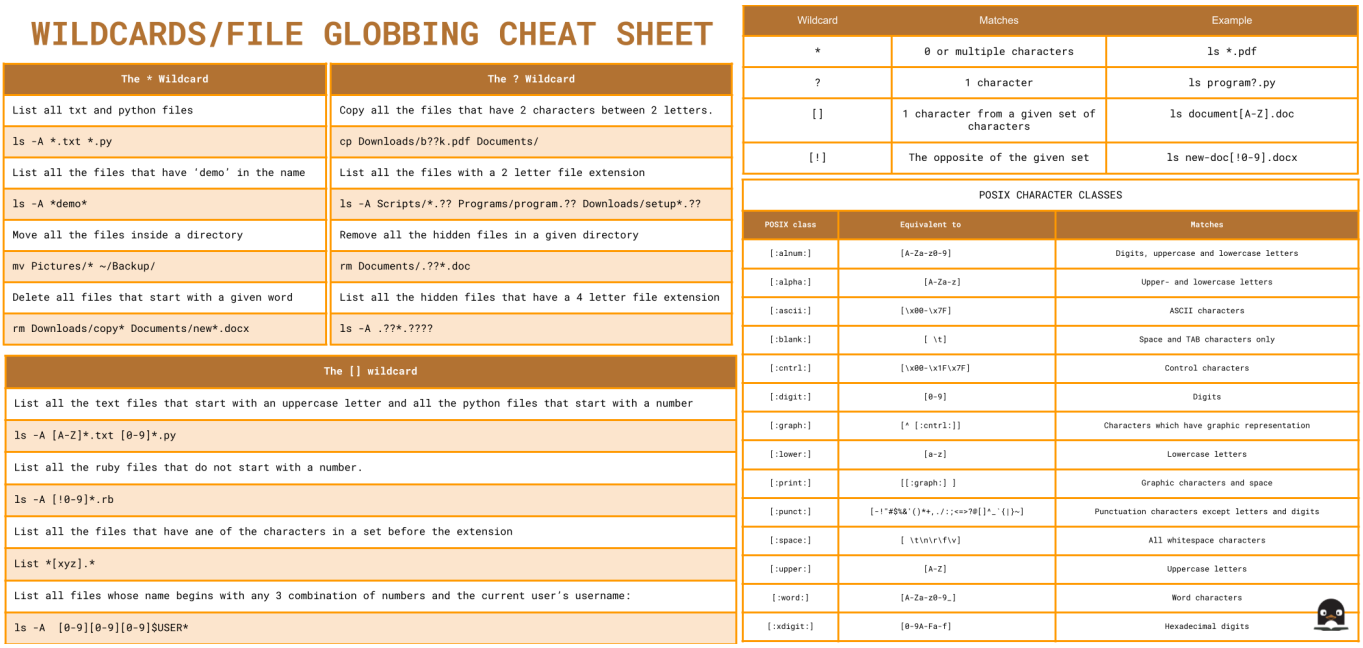
Week Report 6

Summary of Presentation :

- **Wildcards** A wildcard is a character that can be used in a search to replace any of a group of characters, considerably boosting the flexibility and efficiency of searches.

Wilcard	meaning	Example
*	It matches anything and nothing matches any number of characters	ls *.txt
?	In shell commands, is used as a wildcard character to indicate exactly one character or more, which can be any single character.	ls t?.txt
[]	It matches a single character in a range	ls p[aeiou]*
[!]	It matches all except what is inside the brackets	ls [!ae]*



WILDCARDS/FILE GLOBBING CHEAT SHEET

The * Wildcard	The ? Wildcard
List all txt and python files	Copy all the files that have 2 characters between 2 letters.
ls -A *.txt *.py	cp Downloads/b??k.pdf Documents/
List all the files that have 'demo' in the name	List all the files with a 2 letter file extension
ls -A *demo*	ls -A Scripts/*.?? Programs/program.?? Downloads/setup*.??
Move all the files inside a directory	Remove all the hidden files in a given directory
mv Pictures/* ~/Backup/	rm Documents/.??*.doc
Delete all files that start with a given word	List all the hidden files that have a 4 letter file extension
rm Downloads/copy* Documents/new*.docx	ls -A .??*.????

The [] wildcard
List all the text files that start with an uppercase letter and all the python files that start with a number
ls -A [A-Z]*.txt [0-9]*.py
List all the ruby files that do not start with a number.
ls -A [!0-9]*.rb
List all the files that have ane of the characters in a set before the extension
List *[xyz].*
List all files whose name begins with any 3 combination of numbers and the current user's username:
ls -A [0-9][0-9][0-9]$USER*

Wildcard	Matches	Example
*	0 or multiple characters	ls *.pdf
?	1 character	ls program?.py
[]	1 character from a given set of characters	ls document[A-Z].doc
[!]	The opposite of the given set	ls new-doc[!0-9].docx

POSIX CHARACTER CLASSES

POSIX class	Equivalent to	Matches
[:alnum:]	[A-Za-z0-9]	Digits, uppercase and lowercase letters
[:alpha:]	[A-Za-z]	Upper- and lowercase letters
[:ascii:]	[\x00-\x7F]	ASCII characters
[:blank:]	[\t]	Space and TAB characters only
[:cntrl:]	[\x00-\x1F\x7F]	Control characters
[:digit:]	[0-9]	Digits
[:graph:]	[^ [:cntrl:]]	Characters which have graphic representation
[:lower:]	[a-z]	Lowercase letters
[:print:]	[[:graph:]]	Graphic characters and space
[:punct:]	[-!"#$%&'()*+,./:;<=>?@[]^_`{|}~]	Punctuation characters except letters and digits
[:space:]	[\t\n\r\f\v]	All whitespace characters
[:upper:]	[A-Z]	Uppercase letters
[:word:]	[A-Za-z0-9_]	Word characters
[:xdigit:]	[0-9A-Fa-f]	Hexadecimal digits

- **Brace expansion and how to use it** This is a feature of bash that allows to generate arbitrary string to use with commands.

Example, `mkdir -p music/{jazz,rock}/{m3files,videos}new{1..3}` Example removing multiple files: `rm -r {text1.tx,text2.txt,text3.txt}`