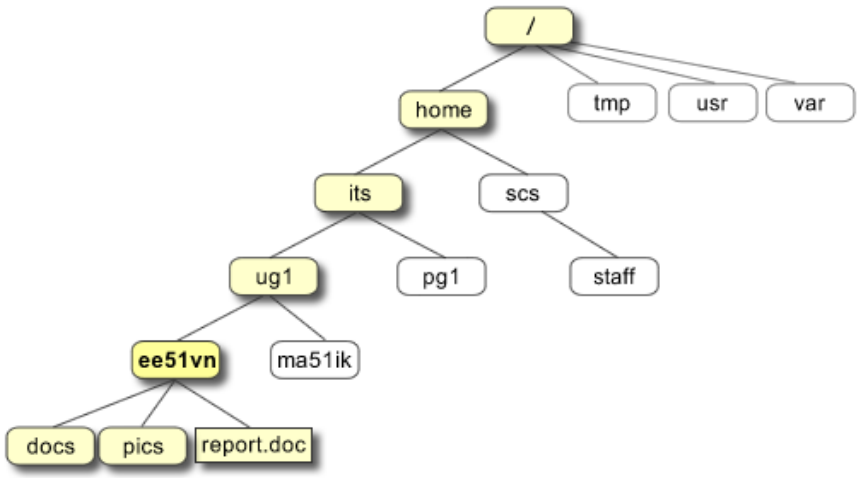
What is UNIX?

UNIX is an operating system like Windows on our computers. By operating system, we mean the suite of programs which make the computer work. It is a stable, multi-user, multi-tasking system for servers, desktops and laptops.

The Directory Structure

All the files are grouped together in the directory structure. The file-system is arranged in a hierarchical structure, like an inverted tree. The top of the hierarchy is traditionally called **root** (written as a slash /)



Basic commands

When you first login, your current working directory is your home directory. In UNIX (**.**) means the current directory and (**..**) means the parent of the current directory.

find command

The find command is used to locate files on a Unix or Linux system. find will search any set of directories you specify for files that match the supplied search criteria.
The syntax looks like this: find where-to-look criteria what-to-do
All arguments to find are optional, and there are defaults for all parts. where-to-look defaults to . (that is, the current working directory), criteria defaults to none (that is, select all files), and what-to-do (known as the find action) defaults to -print (that is, display the names of found files to standard output).
Examples:
find . –name *.txt (finds all the files ending with txt in current directory and subdirectories)
find . -mtime 1 (find all the files modified exact 1 day)

find . -mtime -1 (find all the files modified less than 1 day)
find . -mtime +1 (find all the files modified more than 1 day)
find . –name "*.txt" –print | xargs grep "word" (find all text file which contains word)

grep command

The grep command allows you to search one file or multiple files for lines that contain a pattern.

Option	Description
-b	Display the block number at the beginning of each line.
-c	Display the number of matched lines.
-i	Ignore case sensitivity.
-l	Display the filenames, but do not display the matched lines.
-n	Display the matched lines and their line numbers.
-v	Display all lines that do NOT match.
-w	Match whole word. (Exclude ABCDwordDEFG)

Examples:
grep –c *word file* (prints the count of lines includes *word* in the *file*)
find . -type f -exec ls -s {} \; | sort -n -r | head -5 (find the top 5 big files)
find . -type f -exec ls -s {} \; | sort -n | head -5 (find the top 5 small files)
find ~ -size +100M (find files bigger than 100Mb)

Command	**Meaning**
`ls`	list files and directories
`ls -a`	list all files and directories including hidden ones
`ls -l`	list in long listing format
`mkdir`	make a directory
`cd directory`	change to named directory
`cd`	change to home-directory
`cd ~`	change to home-directory
`cd ..`	change to parent directory
`pwd`	display the path of the current directory

cp *file1 file2*	copy file1 and call it file2
mv *file1 file2*	move or rename file1 to file2
rm *file*	remove a file
rmdir *directory*	remove a directory
cat *file*	display a file
less *file*	display a file a page at a time
head *file*	display the first few lines of a file
tail *file*	display the last few lines of a file
wc *file*	count number of lines/words/characters in file
command* > *file	redirect standard output to a file
command* >> *file	append standard output to a file
command* < *file	redirect standard input from a file
command1* | *command2	pipe the output of command1 to the input of command2
cat *file1 file2* > *file0*	concatenate file1 and file2 to file0
sort	sort data
who	list users currently logged in
*****	match any number of characters
?	match one character
man *command*	read the online manual page for a command
whatis *command*	brief description of a command
chmod [*options*] *file*	change access rights for named file
***command* &**	run command in background

^C	kill the job running in the foreground
ps	list current processes
top	list current processes (interactive)
kill 26152	kill process number 26152
du file	Shows disk usage
gzip file	Compresses a file
gunzip file	Decompresses a file
diff file1 file2	Displays the differences
history	show command history list