UNIX

Foundation Exercises

Module 06 - Pattern Matching & Searching

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**Perform the following tasks (using a single command line for each)**

1. Count how many lines contain word **sleep** in **/student\_files/day1/batchprog**.
   1. grep -c sleep batchprog
2. Display the account details for pin number **534** from your **day2/accounts** file
   1. grep 534 accounts
3. Move to your **tradingSystem** directory and, using the **brokers.dat** file:
4. Identify all the brokers with a last name of *Smith:* grep -i smith brokers.dat
5. List all lines that do not start with a number: grep '^[[:alpha:]]' brokers.dat
6. Identify all the brokers whose last name ends with *n:* grep ['\*[n]$' ] brokers.dat
7. Using the **companies.dat** file:
8. Display all the companies with a letter *b* in their name, upper or lower case: grep -i 'b' companies.dat
9. Display the number of companies with a *b* in their name, upper or lower case: grep -i -c 'b' companies.dat
10. Identify all the companies with more than 1 word in their name: grep -i ' ' companies.dat
11. Using the **currency.dat** file:
12. Identify all the *British* currencies: grep -i 'british' currency.dat
13. Display the line that contains the *$* symbol (search for the *$*): grep '[$]' currency.dat
14. Display all the lines in **/etc/passwd** that contain an upper case character followed by a lower case character.: grep '[[:upper:]].\*[[:lower:]]' /etc/passwd
15. Display a list of all the files in /student\_files (and its subdirectories) that contain the string **character**. Discard any error messages.: grep -r character \*
16. Display all the lines in **/student\_files/day1/grepFile** that start with the letter **h** followed by either **i**, **e**, **o** or **u.** Also display the line number of each match.: grep -n '^h.[aeiou]\*' /student\_files/day1/grepFile
17. Display all the lines in **/student\_files/day1/grepFile** that start *and* end with a number.: grep '^[0-9].\*[0-9]$' /student\_files/day1/grepFile
18. Find all the files in your home directory and its subdirectories which have a filename ending in **.dat:** find ~ -name \*.dat -print
19. Find all the regular files within the **/student\_files** directory which are larger than 1k in size and display their size, discarding any error messages.: **find /student\_files -type f -size -100c -exec wc -c {} \;**
20. Find all empty files in your home directory and interactively remove them: find /student\_files -type f -size -1c -ok rm {} \;
21. List the contents of the top level of your home directory and display only the lines which refer to files: find ~ -print
22. Run **find /var/log -mmin -30 -print** and inspect the results

Run this command again and redirect the errors to **/dev/null:** find /var/log -mmin -30 -print 2>/dev/null

1. Count how many files you have in your home directory and any subdirectories.
   1. find ~ -type f | wc -l
2. Count how many directories you have in your home directory and any subdirectories.
   1. find ~ -type d | wc -l