CS 275 – Fall 2022 UNIX Scripting

**Homework 03**

Develop a shell script that parses a log of user activities on a system and displays output useful to a System Administrator. Your script should meet the following criteria:

* You should use getopts to process the options provided on the command-line.
* The file you will be parsing is located at /home/student/Classes/Cs275/files/log
  + The user should not need to provide this as the log file.
* If the user provides no parameters, the script should do nothing and exit.
* If the user provides -h as a parameter, a usage message should be displayed.
* There should be an optional parameter that can be used to restrict the search to a single date in the logs.
* There should be an optional parameter that can be used to restrict the search to a single host in the logs (by default the entire log should be searched).
* From the command line, the user should be able to perform the following searches:
  + count the number of accepted and rejected login attempts in the log
  + count the number of times a host has been logged into
  + count the number of times a provided login has logged in
  + show all the log lines for a provided login
  + show all the login log lines for a given lab host
  + show all the logins from a provided remote host IP address
  + display the login information contained in the logs in a table format at a minimum display: date, login, lab host
  + provide an interactive menu system for at least 4 of the above options that will be displayed if the user provides -i as a parameter

Your script should be able to handle any date format that the date command can handle.

(Tip: date “+%b %d” –d “<date>” is your friend...)

Sample output from an implementation is available in Canvas. The file is called hw3.sample.txt

The completed script should be uploaded from a lab machine using $ submit 275 hw3.sh