CPSC 4240
Milestone 1 - Project Proposal
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1. Project Description
   - We will be creating a system administration tool that keeps track of system logs and can search log files based on user-defined criteria. The program then combines the log entries into one file sorted by date. Users can add log files to parse by adding the file location to a configuration file and specifying the date format.
2. Objectives
   1. Create a well documented manual page on the command arguments and example usage.
   2. Format a read me describing how to add external log files to parse.
   3. Use regular expressions to create search results quickly and accurately.
   4. Categorize system log files into pre-determined categories.
   5. Merge results into one file sorted by date.
3. Justification
   - Our tool will allow system administrators to diagnose issues quicker and more efficiently by being able to step through logs chronologically in a single file. Automated tasks can be driven based on email receipt. Customizability is key for system administrators to do their job well which is why it will be at the core of our program.
4. Related Projects/ Products
   - Solarwinds, a popular enterprise solution for event log parsing, achieves many of the same characteristics as our project with a GUI. What Solarwinds does well is abstract away from the log files and allows the user to simplify the parsing criteria by providing customized criteria based on the device manufacturer or even the device itself. As useful as this might be, it is out of scope for the limited time/ assets we have available to us and we will try our hardest to make it easy for the user to customize as much as possible.

5. UI Examples

Visual log organizer. Organizes logs into a single file which is viewable and searchable. Logs are sorted based on category, date, error code, etc.

Visu LOG

☐ Network
☑ Sudo
☐ Event Logs
☑ Auth
☑ Boot

🔍 Error
     Code [2]   date ☑
                  from   to

[2020-5-02] Error 2 .... /var/log
                         /secure

[2020-06-07] Authentication error -
User not... /var /log /auth.log