Good Afternoon CEG2350

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Quote of the week:
“The tree falls the way it leans. Be careful which way you lean”

How was Lab04?

Questions over anything up until now?
Scripting or link related? $PATH?

Beginning Lab05

Lab Instructions: https://pattonsgirl.github.io/CEG2350/Labs/Lab05/Instructions.html

Lab Template: https://raw.githubusercontent.com/pattonsgirl/CEG2350/refs/heads/main/docs/Labs/Lab05/LabTemplate.md

How are classes going?

Lets snag some files – Exam review

README

CEG2350 Midterm 1 Review

A comprehensive practice quiz covering essential Linux/Unix system administration concepts and commands.

Overview

This quiz contains 54 questions covering the following topics:

- Shells (bash, PowerShell, etc.)
- Files, directories, and OS structure
- SSH (Secure Shell) connections and configuration
- Bash scripting fundamentals
- File permissions and user management
- Text processing with grep, sed, and awk
- Regular expressions
- Git version control
- Practical command-line exercises

wget?

https://github.com/aidenc17/CEG2350-Exam1-Review

grep - Part 1

Part 1 - grep

`grep` is a handy command to find patterns in text. There are two flags that enable enhanced regular expressions: `-E` and `-P`. `-E` handles most things, but does not work with special regex letter the represent ranges `-\w` and `\d` for example. To use these characters for the ranges they represent, use the `-P` flag instead of the `-E` flag.

```
grep [OPTIONS] PATTERN [FILE...]
```

In access.log you'll find dummy logs for users (client machines) accessing a web server. Each line contains:

- the client IP
- the access (request) timestamp
- the HTTP Request Method (GET or POST) & resource URL (page)
- the HTTP Status code

Your task is to use both `grep` and `wc` to parse the file for information and report on how many instances were found. Your searches with `grep` should add in enough patterning to reduce mistakes (inaccurate catches).

```
GREP(1)                    General Commands Manual                    GREP(1)

NAME
       grep, egrep, fgrep, rgrep - print lines matching a pattern

SYNOPSIS
       grep [OPTIONS] PATTERN [FILE...]
       grep [OPTIONS] [-e PATTERN | -f FILE] [FILE...]

DESCRIPTION
       grep  searches the named input FILEs (or standard input if no files are
       named, or if a single hyphen-minus (-) is given as file name) for lines
       containing  a  match to the given PATTERN.  By default, grep prints the
       matching lines.

       In  addition,  three  variant  programs  egrep,  fgrep  and  rgrep  are
       available.   egrep  is  the  same  as  grep -E.   fgrep  is the same as
       grep -F.  rgrep is the same as grep -r.  Direct  invocation  as  either
       egrep  or  fgrep  is  deprecated,  but  is provided to allow historical
       applications that rely on them to run unmodified.
```

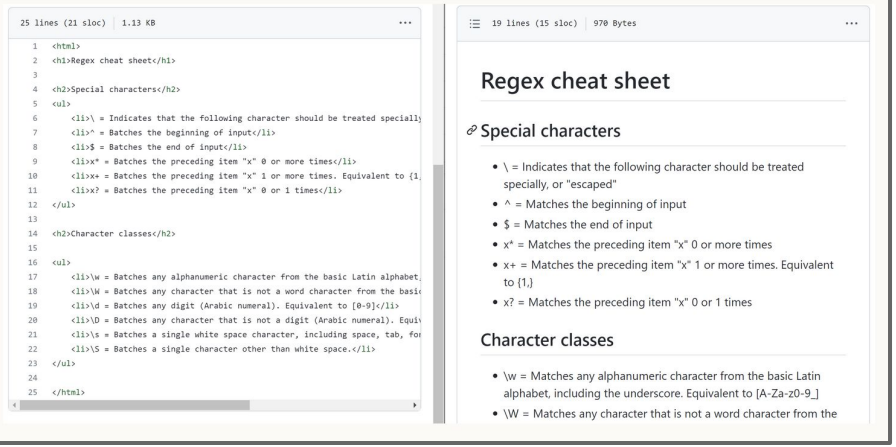
sed - Part 2

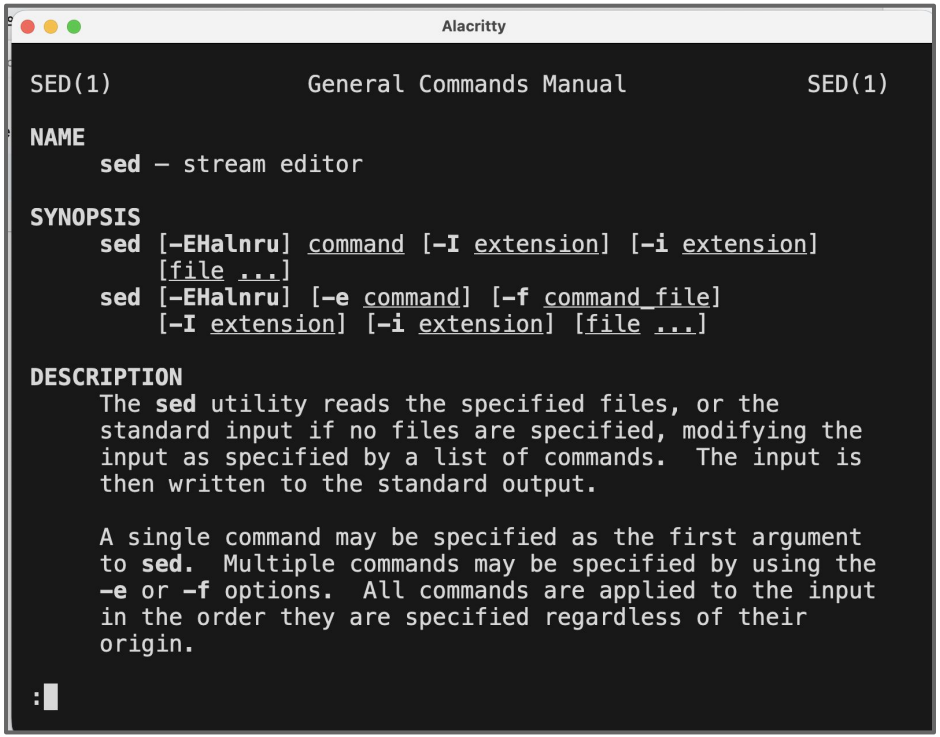
Part 2 - sed

`sed` is mostly commonly used as a search and replace command. In sedfile.html you'll find an html file. Your task is to change it into markdown using `sed` commands. Your converted file should be named `sedfile.md`.

- Raw version of sedfile.html

The following picture shows how `sedfile.html` (the original) looks compared to `sedfile.md` after being fixed to use markdown when the files are viewed in GitHub.





awk - Part 3

Part 3 - awk

awk is a full blown scripting language dedicated to text manipulation. See the resources for more examples, but the general format is:

```
awk 'program' input-file
```

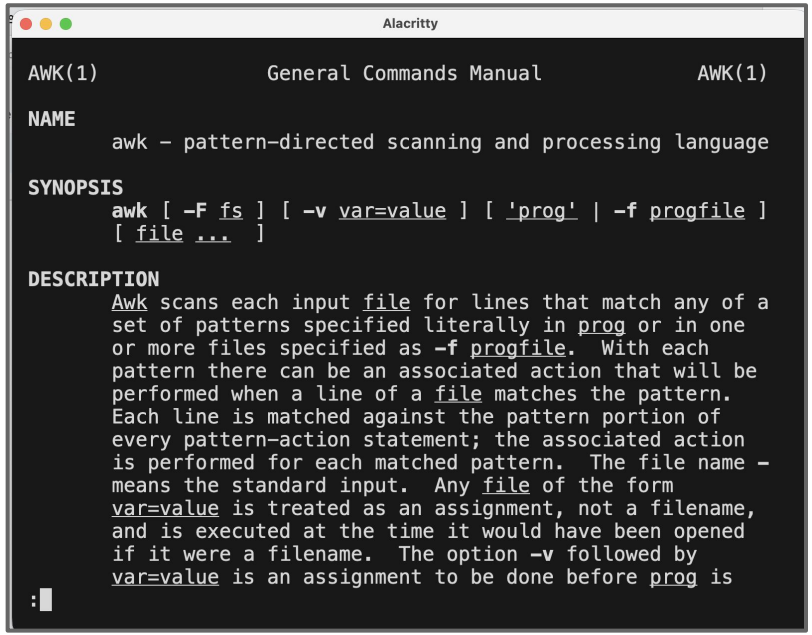
In sales.txt you'll find a file that contains sales records. Your task is to ask some queries and make replacements using awk.

- Raw version of sales.txt

Each lines in `sales.txt` contains the following fields:

- Date (YYYY-MM-DD)
- Product (String)
- Category (String)
- Quantity Sold (Integer)
- Unit Price (Float)
- Total Revenue (Quantity Sold × Unit Price)

Only write the command that performs the required task in the lab write up. DO NOT paste the results.



Have a Good Weekend!

Don’t hesitate to reach out and ask questions!
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