

Assignment 1

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Linux

Q1)

Find all files in a directory larger than 10 kb.

Q2)

Find private IP address of your device.

Q3)

Find all commands from history which contains 'sudo'.

Q4)

Write command for stopping a process on a specific port number.

Q5)

Count the number of lines in a text file.

Q6)

Write a shell script that logs the CPU usage of the system continuously for 5 minutes. The script should perform the following actions:

1. Create a directory named "cpu_logs" in the current directory to store the CPU usage logs.
2. Within the "cpu_logs" directory, create a new log file with a timestamp as the filename, indicating when the logging started.
3. Continuously monitor and log the CPU usage every 10 seconds for a duration of 5 minutes.
4. Each log entry should consist of the timestamp and the corresponding CPU usage percentage.
5. After 5 minutes, save the log file and display a message indicating the completion of logging.

Q7)

Write a shell script to find all image files (.jpg, .png, .gif) in a directory by start date and end date.

Create a sample directory which contains various image files.

Set the default value of start date = "2023-01-01" and end date = "2023-01-01" in the script

Give the user the choice(y/n) of entering the start and end dates. And then output the file paths and also the number of files found.

```
~/De/a/N/Linux Commands Practice script/find_images.sh
Script started to find all image files with date range...
(Default Start Date is 2022-01-01) Do you want to enter Start Date(y/n): y|
```

```
~/De/a/N/Linux Commands Practice script/find_images.sh
Script started to find all image files with date range...
(Default Start Date is 2022-01-01) Do you want to enter Start Date(y/n): y
Enter Start Date(YYYY-MM-DD): 2022-04-15
(Default End Date is 2023-01-01) Do you want to enter End Date(y/n) : n|
```

Output:

```
~/De/a/N/Linux Commands Practice script/find_images.sh
Script started to find all image files with date range...
(Default Start Date is 2022-01-01) Do you want to enter Start Date(y/n): y
Enter Start Date(YYYY-MM-DD): 2022-04-15
(Default End Date is 2023-01-01) Do you want to enter End Date(y/n) : n

Files Found:
./directory/dir1/ubuntu-logo112.png
./directory/dir1/ubuntu_mxuj2d96.gif
./directory/dir1/s2-1.jpg
./directory/laravel_logo.png
./directory/dir2/download.png
./directory/dir2/download.jpg
./directory/dir2/PHP_logo.png
./directory/dir3/wallpaper2.jpg
./directory/dir3/ubuntu-logo.png
./directory/wallpaper1.jpg

Number of files found:
10
```

SQL

Q1)

Write an SQL query to find the second highest salary from the Employee table. If there is no second highest salary, the query should output null.

- a. Create the sample table which the attributes as "id", "salary".
- b. Employee table:

+-----+	
id salary	
+-----+	
1 400	
2 200	
3 300	
+-----+	

Output:

+-----+	
result	
+-----+	
300	
+-----+	