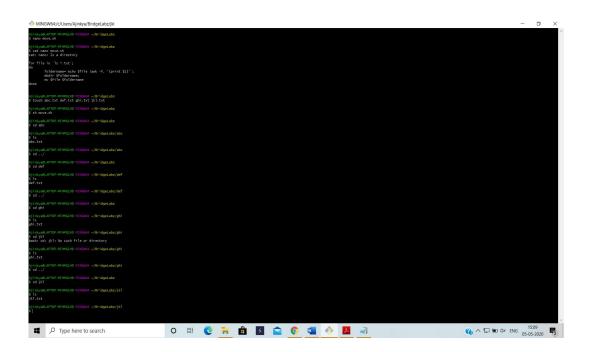
Move files from one folder to the respective folders.

E.g current folder have files abc.txt, def.txt, ghi.txt, jkl.txt
You have to move these files to the folder like abc.txt => abc/, def.txt => def/ ...
Expected outcome -

abc/abc.txt def/def.txt ghi/ghi.txt jkl/jkl.txt

- a) Create files in current directory or any temporary directory abc.txt, def.txt, ghi.txt, jkl.txt
- b) Print list of files to move.
- c) Segregate basename and extension of a file.
- d) Create folder using basename.
- e) Move file to newly created folder.
- f) Iterate above steps for all files.



Append current date to all log files name which has extension .log.1 from a folder

E.g original file - access.log.1
New updated file name - access-20102019.log

a) Create files with name abc.log.1, def.log.1, ghi.log.1, jkl.log.1, mno.log.1
b) Print list of files to rename.
c) Segregate basename and extension of a file
d) Print Date Command to show in ddmmyy
e) Append Date to the log file name
f) Iterate above steps for all files which has extension .log.1

```
Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ nano name.sh

Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ cat name.sh
for file in `ls *.log.1`

do
    filename=`echo $file | awk -F "." '{print $1}'`;
    today=$(date +%Y-%m-%d)
    files="${filename}${today}.log";
    cp $file $files;
    echo $files;

done

Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ touch access.log.1

Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ sh name.sh
abc2020-05-05.log
access2020-05-05.log
Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ $
```

Print last 4 frequently access urls count in sorted order from /var/log/httpd/access.log

- a) View /var/log/httpd/access.log
- b) Print field which has urls data.
- c) Sort extracted urls and count it
- d) Print 4 unique urls

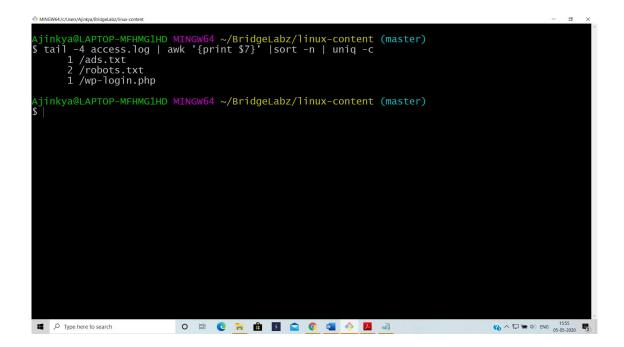
Expect sample output -

3458 /index.html

300 /api/swagger-ui.html

100 /favi.ico

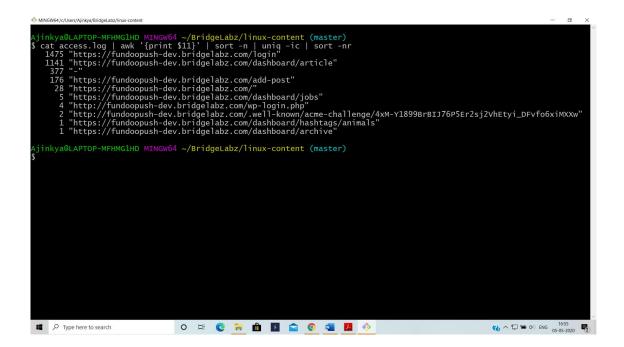
20 /robots.txt



Print list of last 4 frequently access unique urls at particular hours from /var/log/httpd/access.log

- a) View access.log without opening it using editor.
- b) Print urls which has given timestamp.
- c) Sort extracted urls and count it
- d) Print 4 unique urls

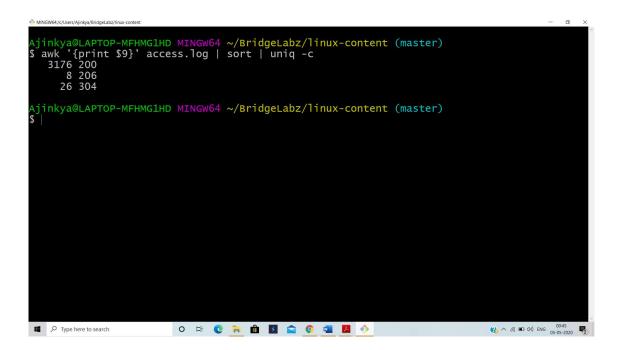
Expect sample output 3458 /index.html
300 /api/swagger-ui.html
100 /favi.ico
20 /robots.txt



Print list of web response code count in the unique sorted order at specific hours

- a) View access.log without opening it using editor.
- b) Print web response code field which has given timestamp
- c) Sort extracted response code and count it
- d) Print 4 unique response code count

Expected sample output -1000 200 100 304



Print list of last 10 unique sorted client IP from /var/log/httpd/access.log

- a) View access.log without opening it using editor.
- b) Print client ip field from access log
- c) Sort extracted client IP and count it
- d) Print 4 unique client IPs

Expect sample output 3635 107.181.177.135
423 27.62.203.44
45 157.44.195.138
4 157.39.158.225

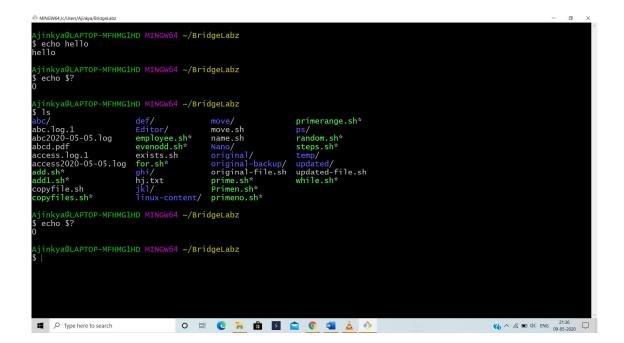
Check if a folder exists or not. If it's not present, create it

- a) Test if particular folder exists in current directory or not
- b) If its doesn't exists then create it else print "folder already exists.."

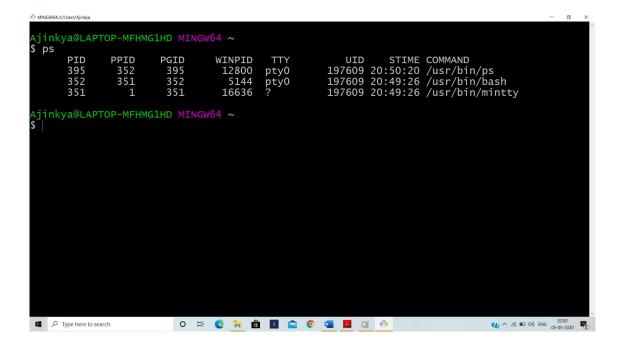
```
Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ nano exists.sh
 jinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ cat exists.sh
for file in `ls *.txt`
        foldername='echo $file | awk -F. '{print $1}'`;
if [ -d $foldername ]
then
                 rm -r $foldername;
echo "folder already exists..";
        else
                 mkdir $foldername;
done
 jinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ sh exists.sh
Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ touch q.txt
 inkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
$ sh exists.sh
folder already exists..
 ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz
O H C 📻 🛍 🖸 😭 🤷 🔼 📀
                                                                                                        (3) ^ (6: 17:27 ENG 04-05-2020 ■
```

Execute command "hello" and "Is" and check its execution status and print whether command executed successful or not.

- a) Execute "hello" command at command prompt
- b) Check execution status of "hello" command
- c) Execute "Is" command at command prompt
- d) Check execution status of "Is" command

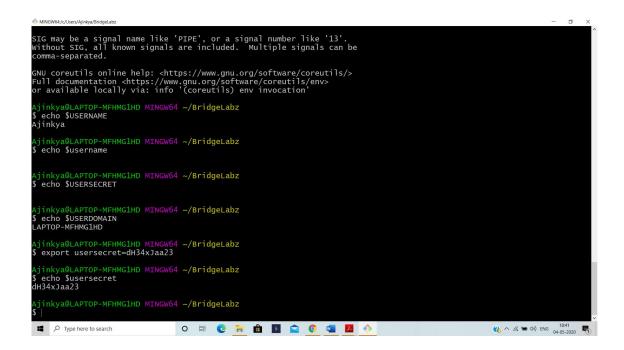


Create process list table displays process id, parent process id, command name, % of memory consumption, % of cpu utilization										
PID	PPID	CMD	%MEM	%CPU						
760	1	/usr/bin/dockerd -H unix://	3.5	0.0						
776	1	/usr/bin/containerd	0.7	0.1						
7266	757	sshd: root@pts/0	0.6	0.0						
759	1	/usr/sbin/rsyslogd -n	0.5	0.0						
347	1	/usr/lib/systemd/systemd-jo	0.3	0.0						
484	1	/usr/sbin/NetworkManager	0.3	0.0						
1	0	/usr/lib/systemd/systemd	0.2	0.0						
7268	7266	-bash	0.2	0.0						
758	1	/usr/bin/python -Es /usr/sb	0.1	0.0						



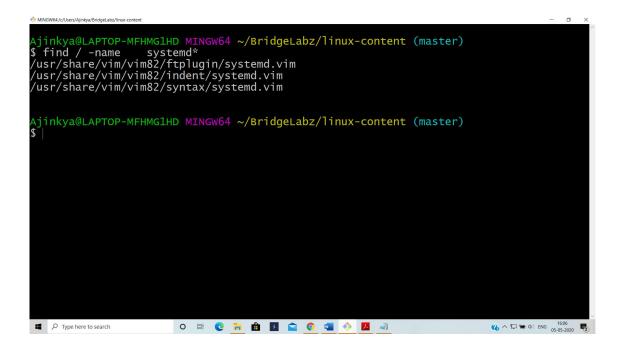
Set environment usersecret="dH34xJaa23" if its already not set

- a) Check whether environment variable usersecret assigned any value or not
- b) Print error if usersecret already set
- c) Set environment variable usersecret to given value.



Find a word "systemd" from all log files in the folder /var/log and print number of occurrence more than 0 against each file.

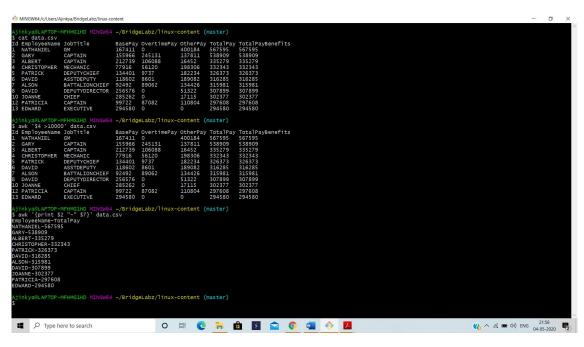
a) Use linux command to search word and print occurrence



Data analysis / manipulation (Awk)											
lo	Employee Nam	ne Job Title	Base Pay	Overtime Pay	Other Pay	Total Pay	TotalPayBenefits				
	NATHANIEL GARY ALBERT CHRISTOPHER PATRICK DAVID ALSON DAVID D JOANNE 2 PATRICIA	GM CAPTAIN CAPTAIN MECHANIC DEPUTY CHIEF ASST DEPUTY BATTALION CHIEF DEPUTY DIRECTOR CHIEF CAPTAIN	167411 155966 212739 77916 134401 118602 92492 256576 285262 99722	0 245131 106088 56120 9737 8601 89062 0 0	400184 137811 16452 198306 182234 189082 134426 51322 17115 110804	567595 538909 335279 332343 326373 316285 315981 307899 302377 297608	567595 538909 335279 32343 326373 316285 315981 307899 302377 297608				

- i) Print EmployeeName and TotalPay who has BasePay greater than 10000
- a) Read data file 'data.csv' from command line and extract rows which have BasePay > 10000
- b) Print only EmployeeName and TotalPay
- ii) What is the aggregate TotalPay of employees whose jobtitle is 'CAPTAIN'
- a) Read data file 'data.csv' from command line and extract rows which have 'CAPTAIN' in the column 'jobtitle'
- b) Extract TotalPay and calculate sum. Print the result on terminal.
- iii) Print JobTitle and Overtimepay who has Overtimepay is between 7000 and 10000
- a) Read data file 'data.csv' from command line and extract jobtitle and overtimepay for column value range between 7000-10000
- b) Print the result on terminal.
- iv) Print average BasePay
- a)Read data file 'data.csv' from command line and extract BasePay values and calculate its average
- b)Print the result on terminal.





```
a@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
AJINKYBULAPIOP-MHHMAIHD M

$ cat data.csv

Id EmployeeName JobTitle

1 NATHANIEL GM

2 GARY CAPTAIN

3 ALBERT CAPTAIN

4 CHRISTOPHER MECHANIC
                                                                BasePay OvertimePay OtherPay TotalPay TotalPayBenefits
167411 0 400184 567595 567595
155966 245131 137811 538909 538909
212739 106088 16452 335279 335279
77916 56120 198306 332343 332343
134401 9737 182234 326373 326373
134401 9737 182234 326373 326373
118602 8601 189082 316285 316285
92492 89062 134426 315981 315981
256576 0 51322 307899 307899
285262 0 17115 302377 302377
99722 87082 110804 297608 297608
294580 0 0 294580 294580
      PATRICK
                                 DEPUTYCHIEF
      DAVID
                                 ASSTDEPUTY
                                                                 92492
256576
285262
99722
294580
      ALSON
DAVID
                                BATTALIONCHIEF
DEPUTYDIRECTOR
10
      TOANNE
                                CHTEF
                                 CAPTAIN
                                                                                 87082
0
                                                                                                                             297608
294580
      PATRICIA
                                                                                                                                               297608
294580
      EDWARD
                                EXECUTIVE
                                                                 ~/BridgeLabz/linux-content (master)
               QLAPTOP-MFHMG1HD MIN
   cat data.csv | grep -i captain
GARY CAPTAIN
                                                                                                                                               538909
335279
297608
                                                                 155966
212739
                                                                                 245131
106088
                                                                                                           137811
16452
                                                                                                                             538909
335279
      AL RERT
                                CAPTAIN
                                CAPTAIN
                                                                  99722
                                                                                  87082
                                                                                                           110804
  2 PATRICIA
                                                                                                                             297608
  jinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master) cat data.csv | grep -i captain | awk '{sum+=$7} END{print sum/NR}'
  jinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
                                                               O # C 🙀 🛍 🗾 😭 🔘 🝱 🥎 🔼
                                                                                                                                                                                                         (1) ^ (6. ■ (1)) ENG 22:08 (2-05-2020 €2)
 Type here to search
```

iii)

```
inkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
$ cat data.csv
Id EmployeeName JobTitle
                                             BasePay OvertimePay OtherPay
167411 0 400184
155966 245131 137811
                                                                                       TotalPay TotalPayBenefits 567595 567595 538909 538909
   NATHANTEL
                      GM
CAPTAIN
   GARY
                                                                                       538909
335279
332343
326373
316285
315981
307899
302377
297608
294580
                                             212739
77916
134401
118602
                                                         106088
56120
9737
8601
                                                                          16452
198306
182234
189082
                                                                                                    335279
332343
326373
316285
    ALBERT
                       CAPTAIN
                      MECHANIC
   CHRISTOPHER
                      DEPUTYCHIEF
    PATRICK
   DAVID
                      ASSTDEPUTY
                                             92492
256576
285262
99722
294580
                                                        89062
0
0
                                                                          134426
51322
17115
                      BATTALIONCHIEF
                                                                                                     315981
307899
    ALSON
   DAVTD
                      DEPUTYDIRECTOR
                                                                                                    302377
297608
294580
    JOANNE
                      CHIEF
                      CAPTAIN
                                                        87082
0
                                                                           110804
    PATRICIA
    EDWARD
                      EXECUTIVE
 326373
316285
                             lHD MINGW64 ~/BridgeLabz/linux-content (m
'$5>7000 && $5<10000 {    print $3 "\t" $5}
 cat data.csv | awk
PEPUTYCHIEF 9737
SSTDEPUTY 8601
DEPUTYCHIEF
ASSTDEPUTY
 .jinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
Type here to search
                                       (1) A (22:23

(2) ENG 04-05-2020 (2)
```

iv)

```
Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
$ cat data.csv
Id EmployeeName JobTitle BasePay OvertimePay OtherPay TotalP.
1 NATHANIEL GM 167411 0 400184 567595
                                                                    BasePay OvertimePay OtherPay TotalPay TotalPayBenefits
167411 0 400184 567595 567595
155966 245131 137811 538909 538909
212739 106088 16452 335279 335279
77916 56120 198306 332343 332343
134401 9737 182234 326373 326373
118602 8601 189082 316285 316285
92492 89062 134426 315981 315981
256576 0 51322 307899 307899
285262 0 17115 302377 302377
99722 87082 110804 297608 297608
294580 0 0 294580 294580
      GARY
ALBERT
                                   CAPTAIN
                                   CAPTAIN
      CHRISTOPHER
                                  MECHANIC
      PATRICK
                                  DEPUTYCHIEF
      DAVID
ALSON
                                  ASSTDEPUTY
BATTALIONCHIEF
      DAVID
                                  DEPUTYDIRECTOR
      JOANNE
12 PATRICI
13 EDWARD
                                   CAPTAIN
      PATRICIA
                                  EXECUTIVE
Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
$ awk '{sum+=$4} END{print sum/NR}' data.csv
157972
  Ajinkya@LAPTOP-MFHMG1HD MINGW64 ~/BridgeLabz/linux-content (master)
 Type here to search
                                                        O H C 🙀 🛍 🛐 😭 🔘 🝱 🥎 🔼
                                                                                                                                                                                   (1) A (6) ING D4-05-2020 (22:45
```

Find the difference between original file and the updated file. Apply changes to the original file.

- a) Create two directories as "original" and "updated"
- b) Copy given file 'original-file.sh' to the folder "original" and "updated-file.sh" to the folder "updated"
- c) Find the difference between these directories using linux command
- d) Make copy of folder "original" to some other directory as "original-backup" and apply changes to 'original-file.sh' file
- e) Verify that both folders "updated" and "original-backup" have no difference.

