

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.

```
mingw64/e
mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ mkdir original updated

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls
'$RECYCLE.BIN'/      awkterm.sh
-o                  caseterm.sh
Folder_1/           linux-content/
Folder_2/           manish1.txt
Folder_4/           manish2.csv
Folder_5/           nestedif.sh
Folder_6/           original/
'System Volume Information'/ updated/

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ cp -r original updated

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ diff original updated
Only in updated: original

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ mkdir original-backup

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ cp -r original original-backup

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls
'$RECYCLE.BIN'/  Folder_2/  Folder_6/  caseterm.sh  manish2.csv  original-backup/
-o              Folder_4/  'System Volume Information'/  linux-content/  nestedif.sh  updated/
Folder_1/       Folder_5/  awkterm.sh  manish1.txt   original/

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$
```

MINGW64/e

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ cat original
cat: original: Is a directory

mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ cat original-backup
cat: original-backup: Is a directory

mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ |
```

Type here to search



05:34
29-07-2021

Data analysis / manipulation (Awk)

Id	Employee Name	Job Title	Base Pay	Overtime Pay	Other Pay	Total Pay	TotalPayBenefits
1	NATHANIEL	GM	167411	0	400184	567595	567595
2	GARY	CAPTAIN	155966	245131	137811	538909	538909
3	ALBERT	CAPTAIN	212739	106088	16452	335279	335279
4	CHRISTOPHER	MECHANIC	77916	56120	198306	332343	32343
5	PATRICK	DEPUTY CHIEF	134401	9737	182234	326373	326373
6	DAVID	ASST DEPUTY	118602	8601	189082	316285	316285
7	ALSON	BATTALION CHIEF	92492	89062	134426	315981	315981
8	DAVID	DEPUTY DIRECTOR	256576	0	51322	307899	307899
10	JOANNE	CHIEF	285262	0	17115	302377	302377
12	PATRICIA	CAPTAIN	99722	87082	110804	297608	297608
13	EDWARD	EXECUTIVE	294580	0	0	294580	294580

i) Print EmployeeName and TotalPay who has BasePay greater than 10000

- Read data file 'data.csv' from command line and extract rows which have BasePay > 10000
- Print only EmployeeName and TotalPay

ii) What is the aggregate TotalPay of employees whose jobtitle is 'CAPTAIN'

- Read data file 'data.csv' from command line and extract rows which have 'CAPTAIN' in the column 'jobtitle'
- Extract TotalPay and calculate sum. Print the result on terminal.

iii) Print JobTitle and Overtimepay who has Overtimepay is between 7000 and 10000

- Read data file 'data.csv' from command line and extract jobtitle and overtimepay for column value range between 7000-10000
- Print the result on terminal.

iv) Print average BasePay

- Read data file 'data.csv' from command line and extract BasePay values and calculate its average
- Print the result on terminal.

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ \awk '$4 > 10000 {print $2 "--" $7}' data.csv\
>
EmployeeName--TotalPay
NATHANIEL--567595
GARY--538909
ALBERT--335279
CHRISTOPHER--332343
PATRICK--326373
DAVID--316285
ALSON--315981
DAVID--307899
JOANNE--302377
PATRICIA--297608
EDWARD--294580
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ |
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-c
ontent (master)
$ \awk '$4 > 10000 {print $0}' data.csv\
> AC
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-c
ontent (master)
$ sh awkterm.sh
```

Id	EmployeeName	JobTitle	BasePay	Ove
rtimePay	OtherPay	TotalPay	TotalPayBenefits	
1	NATHANIEL	GM	167411	0
	400184	567595	567595	
2	GARY	CAPTAIN	155966	245
131	137811	538909	538909	
3	ALBERT	CAPTAIN	212739	106
088	16452	335279	335279	
4	CHRISTOPHER	MECHANIC	77916	561
20	198306	332343	332343	
5	PATRICK	DEPUTYCHIEF	134401	973
7	182234	326373	326373	
6	DAVID	ASSTDEPUTY	118602	860
1	189082	316285	316285	
7	ALSON	BATTALIONCHIEF	92492	890
62	134426	315981	315981	
8	DAVID	DEPUTYDIRECTOR	256576	0
	51322	307899	307899	
10	JOANNE	CHIEF	285262	0
	17115	302377	302377	
12	PATRICIA	CAPTAIN	99722	870
82	110804	297608	297608	
13	EDWARD	EXECUTIVE	294580	0
	0	294580	294580	

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-c
ontent (master)
$
```

MINGW64/e/linux-content

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$ \awk '{print $2 "--" $7}' data.csv\
>
EmployeeName--TotalPay
NATHANIEL--567595
GARY--538909
ALBERT--335279
CHRISTOPHER--332343
PATRICK--326373
DAVID--316285
ALSON--315981
DAVID--307899
JOANNE--302377
PATRICIA--297608
EDWARD--294580

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$
```

Type here to search



05:18
29-07-2021

MINGW64/e/linux-content

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$ \awk '/CAPTAIN/ {print "total payment" $7}' data.csv\
> AC

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$ sh awkterm.sh
total payment538909
total payment335279
total payment297608

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$ |
```



```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
r)
$ \awk '/CAPTAIN/ {print $0}' data.csv\
> AC
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
r)
$ sh awkterm.sh
2 GARY CAPTAIN 155966 245131 1378
11 538909 538909
3 ALBERT CAPTAIN 212739 106088 1645
2 335279 335279
12 PATRICIA CAPTAIN 99722 87082 1108
04 297608 297608
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
r)
$ |
```

MINGW64/e/linux-content

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$ \awk '{print $7}{sum+= $7}END{print "sum of totalpay
= " sum}' data.csv\
>
```

```
TotalPay
567595
538909
335279
332343
326373
316285
315981
307899
302377
297608
294580
sum of totalpay = 3935229
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste
r)
```

Type here to search



09:26
29-07-2021

MINGW64/e/linux-content

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
.csv\k '$$ > 7000 && $$ < 10000{print $3 "--" $$}' data.
>
```

```
DEPUTYCHIEF--9737
ASSTDEPUTY--8601
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

Type here to search



09:29
29-07-2021

MINGW64/e/linux-content

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
ay is = " sum/NR}' data.csv\}END{print "average of basepa
>
```

```
BasePay
167411
155966
212739
77916
134401
118602
92492
256576
285262
99722
294580
average of basepay is = 157972
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

Type here to search




09:32
29-07-2021

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-journal	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/sbin	0.1	0.0

```
mingw64/e
mr@gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ps
  PID   PPID   PGID   WINPID   TTY      UID    STIME  COMMAND
  1252   1251   1252    7536   pty0    197609 16:58:00 /usr/bin/bash
  1307   1252   1307    7312   pty0    197609 17:01:40 /usr/bin/ps
  1251     1   1251   12192     ?      197609 16:57:59 /usr/bin/mintty
mr@gamer@DESKTOP-7U7LC2N MINGW64 /e
$ |
```



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

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ grep -o 'CAPTAIN' data.csv | wc -l
3
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```


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.**

MINGW64/e

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ printenv
USERDOMAIN=DESKTOP-7U7LC2N
OS=Windows_NT
COMMONPROGRAMFILES=C:\Program Files\Common Files
PROCESSOR_LEVEL=6
PSModulePath=C:\Program Files\WindowsPowerShell\Modules;C:\WINDOWS\system32\WindowsPowerShell\v1.0\Modules
CommonProgramW6432=C:\Program Files\Common Files
CommonProgramFiles(x86)=C:\Program Files (x86)\Common Files
MSYSTEM_CARCH=x86_64
DISPLAY=needs-to-be-defined
HOSTNAME=DESKTOP-7U7LC2N
PUBLIC=C:\Users\Public
CONFIG_SITE=/etc/config.site
EXEPATH=C:\Program Files\Git
MSYSTEM_HOST=x86_64-w64-mingw32
USERNAME=mr_gamer
LOGSERVER=\\DESKTOP-7U7LC2N
PROCESSOR_ARCHITECTURE=AMD64
LOCALAPPDATA=C:\Users\mr_gamer\AppData\Local
COMPUTERNAME=DESKTOP-7U7LC2N
FPS_BROWSER_APP_PROFILE_STRING=Internet Explorer
!:::~\
SYSTEMDRIVE=C:
USERPROFILE=C:\Users\mr_gamer
PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
SYSTEMROOT=C:\WINDOWS
USERDOMAIN_ROAMINGPROFILE=DESKTOP-7U7LC2N
PROCESSOR_IDENTIFIER=Intel64 Family 6 Model 69 Stepping 1, GenuineIntel
MINGW_PACKAGE_PREFIX=mingw-w64-x86_64
PWD=/e
SSH_ASKPASS=/mingw64/11bexec/git-core/git-gui--askpass
HOME=/c/Users/mr_gamer
TMP=/tmp
LC_CTYPE=en_US.UTF-8
TERM_PROGRAM=mintty
TERM_PROGRAM_VERSION=3.5.0
MSYSTEM_PREFIX=/mingw64
OneDrive=C:\Users\mr_gamer\OneDrive
PROCESSOR_REVISION=4501
FPS_BROWSER_USER_PROFILE_STRING=Default
TMPDIR=/tmp
SynaProgDir=Synaptics\SynTP
NUMBER_OF_PROCESSORS=4
ProgramW6432=C:\Program Files
```

Type here to search

03:48
29-07-2021

MINGW64/e

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ echo $USERDOMAIN=DESKTOP-7U7LC2N
DESKTOP-7U7LC2N=DESKTOP-7U7LC2N
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$
```

Type here to search



03:52
29-07-2021

Execute command "hello" and "ls" 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 "ls" command at command prompt
- d) Check execution status of "ls" command

```
mingw64/e
mr gamer@DESKTOP-7U7LC2N mingw64 /e
$ echo "hello"
hello
mr gamer@DESKTOP-7U7LC2N mingw64 /e
$ ls
'$RECYCLE.BIN'/'  Folder_2/'  Folder_5/'  'System Volume Information'/'  caseterm.sh  manish1.txt  nestedif.sh
Folder_1/'  Folder_4/'  Folder_6/'  awkterm.sh  linux-content/'  manish2.csv
mr gamer@DESKTOP-7U7LC2N mingw64 /e
$ ls -l
total 15
drwxr-xr-x 1 mr gamer 197121 0 Mar 25 06:54 '$RECYCLE.BIN'/'
drwxr-xr-x 1 mr gamer 197121 0 Jul 21 18:58 Folder_1/'
drwxr-xr-x 1 mr gamer 197121 0 Jul 22 18:29 Folder_2/'
drwxr-xr-x 1 mr gamer 197121 0 Jul 28 14:44 Folder_4/'
drwxr-xr-x 1 mr gamer 197121 0 Jul 29 00:03 Folder_5/'
drwxr-xr-x 1 mr gamer 197121 0 Jul 29 00:35 Folder_6/'
drwxr-xr-x 1 mr gamer 197121 0 Aug 21 2019 'System Volume Information'/'
-rw-r--r-- 1 mr gamer 197121 100 Jul 29 14:37 awkterm.sh
-rw-r--r-- 1 mr gamer 197121 185 Jul 28 20:27 caseterm.sh
drwxr-xr-x 1 mr gamer 197121 0 Jul 29 12:13 linux-content/'
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 14:40 manish1.txt
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 14:49 manish2.csv
-rw-r--r-- 1 mr gamer 197121 232 Jul 28 19:46 nestedif.sh
mr gamer@DESKTOP-7U7LC2N mingw64 /e
$
```

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.."

mir gamer@DESKTOP-7U7LC2N MINGW64 /e

\$ ls

'\$RECYCLE.BIN'/'

Folder_1/

Folder_2/

Folder_4/

Folder_5/

Folder_6/

'System Volume Information'/'

awkterm.sh

caseterm.sh

linux-content/

manish1.txt

nestedif.sh

mir gamer@DESKTOP-7U7LC2N MINGW64 /e

\$

```
mingw64/e
mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ touch manish2.csv

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls
'$RECYCLE.BIN'/'  Folder_4/'  'System Volume Information'/'  linux-content/'  nestedif.sh
Folder_1/'      Folder_5/'  awkterm.sh      manish1.txt
Folder_2/'      Folder_6/'  caseterm.sh     manish2.csv

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ |
```


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
```

MINGW64:/e/linux-content

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ cat /e/linux-content/access.log
```

Type here to search



02:12
29-07-2021

```
1; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.19.3 - - [11/Oct/2019:12:50:46 +0000] "GET /assets/ic_more_vert_24px.svg HTTP/1.1" 200 379 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.19.3 - - [11/Oct/2019:12:50:46 +0000] "GET /assets/play-button-02.png HTTP/1.1" 200 13857 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.19.3 - - [11/Oct/2019:12:50:46 +0000] "GET /assets/Rectangle%2010.svg HTTP/1.1" 200 191 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.19.3 - - [11/Oct/2019:12:50:46 +0000] "GET /assets/loading.gif HTTP/1.1" 200 9658 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.2.2 - - [11/Oct/2019:12:53:01 +0000] "GET /login HTTP/1.1" 200 554 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.2.2 - - [11/Oct/2019:12:53:01 +0000] "GET /runtime.js HTTP/1.1" 200 1710 "https://fundoopush-dev.bridgelabz.com/login" "Mozilla/5.0 (X11; Linux x86_64)"
```

MINGW64:/e/linux-content

```
mir_gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ \awk '{print $1}' access.log |
sort |uniq\
> ^C
```

```
mir_gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ sh awkterm.sh
10.56.0.3
10.56.1.3
10.56.10.2
10.56.19.3
10.56.2.2
10.56.21.2
10.56.22.3
10.56.3.4
10.56.34.4
10.56.4.2
10.56.44.4
10.56.46.2
10.56.5.2
10.56.6.4
10.56.9.3
```

```
mir_gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ |
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ \awk '{print $1}' access.log | sort |
uniq | wc -l\
> ^C
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ sh awkterm.sh
15
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ |
```

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

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ \ nano terminal - awk '{print $9}' acc
ess.log | sort | uniq-c | sort -rn \
> ^C
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ sh awkterm.sh
3176 200
26 304
8 206
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ \awk '{print $9}' access.log |
sort | uniq | wc -l\
> ^C
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ sh awkterm.sh
3
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$
```



```
mr gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ \awk '{print $9}' access.log |
sort | uniq\
> ^C
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ sh awkterm.sh
200
206
304
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64
/e/linux-content (master)
$ |
```

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
```

MINGW64:/e/linux-content

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (maste  
$ cat /e/linux-content/access.log
```

Type here to search



12:11
29-07-2021

```
; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.0.3 - - [23/Sep/2019:14:00:34 +0000] "GET /assets/
videocam.svg HTTP/1.1" 200 597 "https://fundoopush-dev.b
ridgelabz.com/dashboard/article" "Mozilla/5.0 (X11; Linu
x x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/
77.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.0.3 - - [23/Sep/2019:14:00:34 +0000] "GET /assets/
camera.svg HTTP/1.1" 200 1899 "https://fundoopush-dev.br
idgelabz.com/dashboard/article" "Mozilla/5.0 (X11; Linux
x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/7
7.0.3865.75 Safari/537.36" "114.79.180.62"
10.56.0.3 - - [23/Sep/2019:14:00:37 +0000] "GET /assets/
outline-crop_16_9-24px.svg HTTP/1.1" 200 230 "https://fu
ndoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/
5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ grep -o 'http://[^\"]*' access.log | date -u
Thu Jul 29 06:59:41 UTC 2021
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ sort | grep -o 'http://[^\"]*' access.log | wc -l
86
```

mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

```
$ head -4 | grep -o 'http://[^\"]*' acces
s.log | uniq -c
  1 http://www.google.com/bot.html)
  1 http://cloudsystemnetworks.com)
  4 http://www.google.com/bot.html)
  1 http://fundoopush-dev.bridgelabz
.com/wp-login.php
 10 http://www.google.com/bot.html)
  2 http://fundoopush-dev.bridgelabz
.com/.well-known/acme-challenge/4xM-Y189
9BrBIJ76P5Er2sj2VhEtyi_DFVfo6xiMXXw
 18 http://www.google.com/bot.html)
  1 http://fundoopush-dev.bridgelabz
.com/wp-login.php
 16 http://www.google.com/bot.html)
  1 http://cloudsystemnetworks.com)
  6 http://www.google.com/bot.html)
  1 http://cloudsystemnetworks.com)
  4 http://www.google.com/bot.html)
  1 http://cloudsystemnetworks.com)
  5 http://www.google.com/bot.html)
  1 http://fundoopush-dev.bridgelabz
.com/wp-login.php
  1 http://www.google.com/bot.html)
  1 http://cloudsystemnetworks.com)
  6 http://www.google.com/bot.html)
```

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
```



```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ cat /e/linux-content/access.log
```

MINGW64/e

```
like Gecko) chrome/77.0.3865.92 Mobile Safari/537.36" "114.79.180.62"
10.56.2.2 - - [27/Sep/2019:11:54:41 +0000] "
GET /assets/ic_more_vert_24px.svg HTTP/1.1"
200 379 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (Linux; Android 8.0.0; Google Nexus 5X) AppleWebKit/537.36 (KHTML, like Gecko) chrome/77.0.3865.92 Mobile Safari/537.36" "114.79.180.62"
10.56.2.2 - - [27/Sep/2019:11:54:41 +0000] "
GET /assets/Rectangle%2010.svg HTTP/1.1" 200
191 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (Linux; Android 8.0.0; Google Nexus 5X) AppleWebKit/537.36 (KHTML, like Gecko) chrome/77.0.3865.92 Mobile Safari/537.36" "114.79.180.62"
10.56.2.2 - - [27/Sep/2019:11:54:41 +0000] "
GET /assets/play-button-02.png HTTP/1.1" 200
13857 "https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (Linux; Android 8.0.0; Google Nexus 5X) AppleWebKit/537.36 (KHTML, like Gecko) chrome/77.0.3865.92 Mobile Safari/537.36" "114.79.180.62"
10.56.2.2 - - [27/Sep/2019:11:54:41 +0000] "
GET /assets/loading.gif HTTP/1.1" 200 9658 "
https://fundoopush-dev.bridgelabz.com/dashboard/article" "Mozilla/5.0 (Linux; Android 8.0.0; Google Nexus 5X) AppleWebKit/537.36 (KH
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ grep -oP "http://\k[\^']+" access.log
www.google.com/bot.html" "66.249.79.48"
cloudsystemnetworks.com)" "209.17.96.18"
www.google.com/bot.html)" "66.249.73.95"
www.google.com/bot.html)" "66.249.73.95"
www.google.com/bot.html)" "66.249.73.95"
www.google.com/bot.html)" "66.249.73.95"
www.google.com/bot.html)" "66.249.73.95"
fundoopush-dev.bridge1abz.com/wp-login.p
hp" "Mozilla/5.0 (X11; Ubuntu; Linux x86
_64; rv:62.0) Gecko/20100101 Firefox/62.
0" "159.203.27.87"
www.google.com/bot.html)" "66.249.79.45"
www.google.com/bot.html)" "66.249.79.45"
www.google.com/bot.html)" "66.249.79.48"
www.google.com/bot.html)" "66.249.75.79"
www.google.com/bot.html)" "66.249.66.71"
www.google.com/bot.html)" "66.249.66.73"
www.google.com/bot.html)" "66.249.66.73"
www.google.com/bot.html)" "66.249.79.42"
www.google.com/bot.html)" "66.249.79.48"
www.google.com/bot.html)" "66.249.79.42"
fundoopush-dev.bridge1abz.com/.well-know
n/acme-challenge/4xM-Y1899BrBIJ76P5Er2sj
2VhEtyi_DFvfo6xiMXXw" "Go-http-client/1.
1" "10.56.6.94"
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linu
x-content (master)
$ grep -oP "http://\k[^\']+" access.log |
sort | uniq -c
    1 cloudsystemnetworks.com)" "209.1
7.96.138"
    2 cloudsystemnetworks.com)" "209.1
7.96.18"
    2 cloudsystemnetworks.com)" "209.1
7.96.250"
    1 cloudsystemnetworks.com)" "209.1
7.96.90"
    2 fundoopush-dev.bridgelabz.com/.w
ell-known/acme-challenge/4xM-Y1899BrBIJ7
6P5Er2sj2VhEtyi_DFvfo6xiMXXw" "Go-http-c
lient/1.1" "10.56.6.94"
    1 fundoopush-dev.bridgelabz.com/wp
-login.php" "Mozilla/5.0 (X11; Ubuntu; L
inux x86_64; rv:62.0) Gecko/20100101 Fir
efox/62.0" "104.248.217.125"
    1 fundoopush-dev.bridgelabz.com/wp
-login.php" "Mozilla/5.0 (X11; Ubuntu; L
inux x86_64; rv:62.0) Gecko/20100101 Fir
efox/62.0" "158.58.133.52"
    1 fundoopush-dev.bridgelabz.com/wp
-login.php" "Mozilla/5.0 (X11; Ubuntu; L
inux x86_64; rv:62.0) Gecko/20100101 Fir
```

Archive the files from /var/log folder which have modified 7 days ago and move it to your backup folder

- a) Identify files which have modified time greater than 7 days
- b) Move these files to the backup folder

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ touch Folder_5/abc.{1..10}.log.1
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls -l /e/Folder_5
total 0
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.1.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.10.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.2.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.3.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.4.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.5.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.6.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.7.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.8.log.1
-rw-r--r-- 1 mr_gamer 197121 0 Jul 29 00:03 abc.9.log.1
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls -a /e/Folder_5/abc.1.log.1
/e/Folder_5/abc.1.log.1
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ date -r Folder_5
Thu Jul 29 00:03:39 IST 2021
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ mv manish.txt Folder_6
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls Folder_6
manish.txt
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e
$
```

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
-


```
MINGW64/e
mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ touch Folder_5/abc.{1..10}.log.1

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls -l /e/Folder_5
total 0
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.1.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.10.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.2.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.3.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.4.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.5.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.6.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.7.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.8.log.1
-rw-r--r-- 1 mr gamer 197121 0 Jul 29 00:03 abc.9.log.1

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls -a /e/Folder_5/abc.1.log.1
/e/Folder_5/abc.1.log.1

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ date -r Folder_5
Thu Jul 29 00:03:39 IST 2021

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$
```


Get user info from /etc/passwd and change ownership of user's home directory (select userid higher than 1000)

- a) View /etc/passwd file
- b) Print the 1st field from /etc/passwd file
- c) Print all userids > 1000
- d) Print the 2nd field to get home directory
- e) Use command substitution to get user list and home directory
- f) Change ownership of above home directory with user which is retrieve above
- g) Iterate above steps for all userid > 1000

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

\$ cat data.csv

	Id	EmployeeName	JobTitle	BasePay	OvertimePay	OtherPay	TotalPay	TotalPayBe
			enefits					
1	NATHANIEL	GM		167411	0	400184	567595	567595
2	GARY	CAPTAIN		155966	245131	137811	538909	538909
3	ALBERT	CAPTAIN		212739	106088	16452	335279	335279
4	CHRISTOPHER	MECHANIC		77916	56120	198306	332343	332343
5	PATRICK	DEPUTYCHIEF		134401	9737	182234	326373	326373
6	DAVID	ASSTDEPUTY		118602	8601	189082	316285	316285
7	ALSON	BATTALIONCHIEF		92492	89062	134426	315981	315981
8	DAVID	DEPUTYDIRECTOR		256576	0	51322	307899	307899
10	JOANNE	CHIEF		285262	0	17115	302377	302377
12	PATRICIA	CAPTAIN		99722	87082	110804	297608	297608
13	EDWARD	EXECUTIVE		294580	0	0	294580	294580

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

\$

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ \nano terminal- awk '{print $1}' data.csv\
> ^C
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ sh awkterm.sh
```

```
Id
1
2
3
4
5
6
7
8
10
12
13
```

```
mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$
```

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

```
$ \nano terminal- awk '$1 > 10 {print $0}' data.csv\  
> ^C
```

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

```
$ sh awkterm.sh
```

Id	EmployeeName	JobTitle	BasePay	OvertimePay	OtherPay	TotalPay	TotalPayBenefits
12	PATRICIA	CAPTAIN	99722	87082	110804	297608	297608
13	EDWARD	EXECUTIVE	294580	0	0	294580	294580

mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

```
$ |
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/1
linux-content (master)
$ \nano terminal- awk '{print $2}' data.csv\
> ^C
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ sh awkterm.sh
EmployeeName
NATHANIEL
GARY
ALBERT
CHRISTOPHER
PATRICK
DAVID
ALSON
DAVID
JOANNE
PATRICIA
EDWARD
```

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)
$ |
```

mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

\$ ls -l

total 14814

-rw-r--r--	1	mr	gamer	197121	934	Jul	28	22:25	10
-rw-r--r--	1	mr	gamer	197121	934	Jul	28	22:23	1000
-rw-r--r--	1	mr	gamer	197121	15	Jul	24	19:55	README.md
-rw-r--r--	1	mr	gamer	197121	826022	Jul	24	19:55	access.log
-rw-r--r--	1	mr	gamer	197121	26	Jul	28	22:33	awkterm.sh
-rw-r--r--	1	mr	gamer	197121	946	Jul	24	19:55	data.csv
-rw-r--r--	1	mr	gamer	197121	8260403	Jul	24	19:55	linux_chit_sheet.pdf
-rw-r--r--	1	mr	gamer	197121	6065809	Jul	24	19:55	linux_problem_sheet.

mr_gamer@DESKTOP-7U7LC2N MINGW64 /e/linux-content (master)

\$ |

```
mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ ls /e/linux-content
10  README.md  awkterm.sh  linux_chit_sheet.pdf
1000 access.log  data.csv    linux_problem_sheet.pdf

mr gamer@DESKTOP-7U7LC2N MINGW64 /e
$ |
```



Type here to search

