OS and Networking Lab (CA3504)

Name : Suryakant

Registration ID :2021PGCACA063

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Faculty Incharge: Dr. Alekha Kumar Mishra

Assignment-01

Perform the following tasks using Unix commands in the Unix command prompt in your home directory.

a) Check are you in your home directory?

Command -

```
surya@ubuntu:~$ pwd
/home/surya
surya@ubuntu:~$
```

b) Check who are the other users currently logged into this system.

Command –

```
surya@ubuntu:~$ who
surya     seat0          2023-08-17 08:39 (login screen)
surya     :1             2023-08-17 08:39 (:1)
surya@ubuntu:~$
```

c) List in detail about all the files and directories in the home folder.

Command -

```
surya@ubuntu:~$ ls -l
total 4
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Desktop
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Documents
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Downloads
-rw-rw-r-- 1 surya surya 175 Aug 17 09:07 employee.txt
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Music
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Pictures
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Public
drwx------ 4 surya surya  80 Aug 17 08:44 snap
drwxrwxr-x 2 surya surya  40 Aug 17 08:51 surya_oslab
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Templates
drwxr-xr-x 2 surya surya  40 Aug 17 08:39 Videos
surya@ubuntu:~$ 
```

d) Create a directory 'yourname_oslab' in your home directory.
Command –

```
surya@ubuntu:~$ mkdir suryakant_oslab
surya@ubuntu:~$
```

e) List all the directories in your home forlder to verify the creation of 'yourname_oslab' directory

Command –

```
surya@ubuntu:~$ ls
Desktop     Downloads     Music     Public   suryakant_oslab  Templates
Documents   employee.txt  Pictures  snap     surya_oslab      Videos
surya@ubuntu:~$
```

f) Create a file employee.txt as given below.

7369 SMITH CLERK 7902 17-DEC-1980 800 20
7499 ALLEN SALESMAN 7698 20-FEB-1981 1600 30
7521 WARD SALESMAN 7698 22-FEB-1981 1250 30
7566 JONES MANAGER 7839 2-APR-1981 2975 20
7654 MARTIN SALESMAN 7698 28-SEP-1981 1250 30
7698 BLAKE MANAGER 7839 1-MAY-1981 2850 30
7782 CLARK MANAGER 7839 9-JUN-1981 2450 10
7788 SCOTT ANALYST 7566 09-DEC-1982 3000 20
7839 KING PRESIDENT 1 17-NOV-1981 5000 10

Command –

```
surya@ubuntu:~$ cat > employee.txt
7369 SMITH CLERK 7902 17-DEC-1980 800 20
7499 ALLEN SALESMAN 7698 20-FEB-1981 1600 30
7521 WARD SALESMAN 7698 22-FEB-1981 1250 30
7566 JONES MANAGER 7839 2-APR-1981 2975 20
7654 MARTIN SALESMAN 7698 28-SEP-1981 1250 30
7698 BLAKE MANAGER 7839 1-MAY-1981 2850 30
7782 CLARK MANAGER 7839 9-JUN-1981 2450 10
7788 SCOTT ANALYST 7566 09-DEC-1982 3000 20
7839 KING PRESIDENT 1 17-NOV-1981 5000 10
```

g) Create another file employee2nd.txt as given below.

7844 TURNER SALESMAN 7698 8-SEP-1981 1500 30
7876 ADAMS CLERK 7788 12-JAN-1983 1100 20
7900 JAMES CLERK 7698 3-DEC-1981 950 30
7902 FORD ANALYST 7566 3-DEC-1981 3000 20
7934 MILLER CLERK 7782 23-JAN-1982 1300 10
Here, the columns indicates the followig information
<empid, name, designation, superior officer empid, dob, salary, deptcode>

Command –

```
surya@ubuntu:~$ cat > employee2nd.txt
7844 TURNER SALESMAN 7698 8-SEP-1981 1500 30
7876 ADAMS CLERK 7788 12-JAN-1983 1100 20
7900 JAMES CLERK 7698 3-DEC-1981 950 30
7902 FORD ANALYST 7566 3-DEC-1981 3000 20
7934 MILLER CLERK 7782 23-JAN-1982 1300 10
```

h) Display the content of the employee2nd.txt file and concatenate to the employee.txt using redirect commands.

(i)   Copy the file employee.txt to your os_lab directory.
Command –

```
surya@ubuntu:~$ cp employee.txt ~/suryakant_oslab/
surya@ubuntu:~$
```

(ii) Display the count of the number of lines, words, and characters in employee.txt individually using filter (|) operator.
Command –

```
surya@ubuntu:~$ ls -l | wc -l employee.txt
14 employee.txt
surya@ubuntu:~$ ls -l | wc -w employee.txt
98 employee.txt
surya@ubuntu:~$ ls -l | wc -c employee.txt
603 employee.txt
surya@ubuntu:~$
```

(iii) Display how much time the previous command took to execute at various resources
Command –

```
surya@ubuntu:~$ time wc -c employee.txt
603 employee.txt

real    0m0.005s
user    0m0.001s
sys     0m0.001s
surya@ubuntu:~$
```

(iv) Compare the content of employee.txt of home and 'yourname_oslab' directory.
Command –

```
surya@ubuntu:~$ diff employee.txt ~/suryakant_oslab/employee.txt
10,14d9
< 7844 TURNER SALESMAN 7698 8-SEP-1981 1500 30
< 7876 ADAMS CLERK 7788 12-JAN-1983 1100 20
< 7900 JAMES CLERK 7698 3-DEC-1981 950 30
< 7902 FORD ANALYST 7566 3-DEC-1981 3000 20
< 7934 MILLER CLERK 7782 23-JAN-1982 1300 10
surya@ubuntu:~$
```

(v) Remove the employee.txt file from your home directory
Command –

```
surya@ubuntu:~$ rm employee.txt
surya@ubuntu:~$ ls
Desktop     Downloads        Music      Public   suryakant_oslab  Templates
Documents   employee2nd.txt  Pictures   snap     surya_oslab      Videos
surya@ubuntu:~$
```