

# Assignment No. 2

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Refer the file `employee.txt` file created in the first assignment and perform the following operation on it using unix commands.

a) Provide all permission to user, and only read and execution permission to group and others on the file `employee.txt`

```
anubhav@DESKTOP-9VIA8NE:~$ cd anubhav_oslab
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ chmod u=rwx,go=rx employee.txt
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ ls
employee.txt
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
```

b) Filter out all CLERKS and MANAGERS from `employee.txt` and store in separate files named '`clerk.txt`' and '`manager.txt`'.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ grep ' CLERK ' employee.txt > clerk.txt
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ cat clerk.txt
7369 SMITH CLERK 7902 17-DEC-1980 800 20
7876 ADAMS CLERK 7788 12-JAN-1983 1100 20
7900 JAMES CLERK 7698 3-DEC-1981 950 30
7934 MILLER CLERK 7782 23-JAN-1982 1300 10
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ grep ' MANAGER ' employee.txt > manager.txt
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ cat manager.txt
7566 JONES MANAGER 7839 2-APR-1981 2975 20
7698 BLAKE MANAGER 7839 1-MAY-1981 2850 30
7782 CLARK MANAGER 7839 9-JUN-1981 2450 10
```

c) filter all employees born in the year of 1981 from `clerk.txt` and `manager.txt` and store in an another file '`newemp.txt`'.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ grep '1981' clerk.txt manager.txt > newemp.txt
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ cat newemp.txt
clerk.txt:7900 JAMES CLERK 7698 3-DEC-1981 950 30
manager.txt:7566 JONES MANAGER 7839 2-APR-1981 2975 20
manager.txt:7698 BLAKE MANAGER 7839 1-MAY-1981 2850 30
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
```

d) filter subsequently all employee born in the year of 1982 and 1983 and append to the file 'newemp.txt'.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ grep '1982\|1983' clerk.txt manager.txt >> newemp.txt
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ cat newemp.txt
clerk.txt:7900 JAMES CLERK 7698 3-DEC-1981 950 30
manager.txt:7566 JONES MANAGER 7839 2-APR-1981 2975 20
manager.txt:7698 BLAKE MANAGER 7839 1-MAY-1981 2850 30
manager.txt:7782 CLARK MANAGER 7839 9-JUN-1981 2450 10
clerk.txt:7876 ADAMS CLERK 7788 12-JAN-1983 1100 20
clerk.txt:7934 MILLER CLERK 7782 23-JAN-1982 1300 10
```

e) Find out how many employees works under PRESIDENT in employee.txt.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ president_id=$(awk '$3 == "PRESIDENT" { print $1 }' employee.txt)
if [[ -n "$president_id" ]]; then
    count=$(awk -v president_id="$president_id" '$4 == president_id' employee.txt | wc -l)
    echo "Number of employees working under PRESIDENT: $count"
else
    echo "PRESIDENT employee ID not found in the file."
fi
Number of employees working under PRESIDENT: 3
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
```

f) How many employees are working in the department with code 30.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ grep ' 30$' employee.txt | wc -l
6
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
```

g) List details of all the c programming file in the current directory.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ ls -l *.c
ls: cannot access '*.c': No such file or directory
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ vim first.c
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ ls -l *.c
-rw-r--r-- 1 anubhav anubhav 0 Aug 17 10:09 first.c
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
```

h) Count the number of directories present in the current directory.

```
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ ls -d */ | wc -l
ls: cannot access '*/': No such file or directory
0
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ mkdir c_progams
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$ ls -d */ | wc -l
1
anubhav@DESKTOP-9VIA8NE:~/anubhav_oslab$
```