**Muskan Malhotra: Unix Assignement 4**

**Q1. Open employees.txt and write the following data. (if you do not have employees.txt ready)**

**E1001:James:FIN:50000:987654371**

**E1002:Smith:BD:73000:987654381**

**E1003:Kevin:TECH:78000:987654341**

**E1004:Raj:TECH:145000:987654351**

**E1005:Prem:FIN:95000:987654321**

**E1006:Guru:BD:195000:987654311**

**E1006:Guru:BD:195000:987654311**

**E1007:Ken::1:7894561230**

**~$ cat > Employees.txt**

I already have data so I haven't added new

**Q2. Remove the duplicates and store the output in processedEmployees.txt**

**~$ uniq employees.txt**

E1001 James FIN 50000 987654371

E1002 Smith BD 73000 987654381

E1003 Kelvin TECH 78000 987654341

E1004 Raj TECH 145000 987654351

E1005 Prem FIN 95000 987654321

E1006 Guru BD 195000 987654311

**~$ cp employees.txt processedEmployees.txt**

**Q3. Rename processedEmployees.txt to employees.txt**

**~$ mv processedEmployees.txt employees.txt**

**Q4. Sort employees according to their salary and store the output in sortedEmployees.txt**

**~$ sort -t ':' -k4n employees.txt > sortedEmployees.txt**

**~$ cat sortedEmployees.txt**

E1001 James FIN 50000 987654371

E1002 Smith BD 73000 987654381

E1003 Kelvin TECH 78000 987654341

E1005 Prem FIN 95000 987654321

E1004 Raj TECH 145000 987654351

E1006 Guru BD 195000 987654311

**Q5. Find the minimum earning employee in department FIN and store the output in specialEmployees.txt**

**~$ awk '/FIN/ {print}' employees.txt**

E1001 James FIN 50000 987654371

E1005 Prem FIN 95000 987654321

**~$ sort | awk '/FIN/ {print}' employees.txt | head -1**

E1001 James FIN 50000 987654371

**Storing output in specialEmployees.txt**

**~$ sort | awk '/FIN/ {print}' employees.txt | head -1 > specialEmployees.txt**

**~$ cat specialEmployees.txt**

E1001 James FIN 50000 987654371

**Q6. Find the maximum earning employee in department BD and append the output to specialEmployees.txt**

**~$ awk '/BD/ {print}' employees.txt | sort -nrk4**

E1006 Guru BD 195000 987654311

E1002 Smith BD 73000 987654381

**~$ awk '/BD/ {print}' employees.txt | sort -nrk4 |head -1**

E1006 Guru BD 195000 987654311

**~$ awk '/BD/ {print}' employees.txt | sort -nrk4 |head -1 >> specialEmployees.txt**

**~$ cat specialEmployees.txt**

E1001 James FIN 50000 987654371

E1006 Guru BD 195000 987654311

**Q7. Find employees earning 6 digit salary and append the output to specialEmployees.txt**

**~$ awk '{if (length($4)==6) print $2}' employees.txt**

Raj

Guru

**~$ awk '{if (length($4)==6) print $2}' employees.txt >> specialEmployees.txt**

**~$ cat specialEmployees.txt**

E1001 James FIN 50000 987654371

E1006 Guru BD 195000 987654311

Raj

Guru

**Q8. Remove the duplicates from specialEmployees.txt and store the output in processedEmployees.txt**

**~$ uniq specialEmployees.txt**

E1001 James FIN 50000 987654371

E1006 Guru BD 195000 987654311

Raj

Guru

**~$ cp specialEmployees.txt processedEmployees.txt**

**Q9. Copy the contents of processedEmployees.txt to specialEmployees.txt and remove processedEmployees.txt**

**~$ mv processedEmployees.txt specialEmployees.txt**

**Q10.Find the files created yesterday**

**~$ -newermt '2022-10-13'**

**~$ ls -lt**

-r-----r-- 1 user user 190 Oct 13 10:25 employees.txt

**Q11.Find the files which are modified today**

**~$ find . -type f -newermt 2022-10-14**

**~$ ls -lt**

. .bashrc .smc assignement1.term f1 pqr.txt specialEmployees.txt

.. .content.txt .snapshots demo file.term processedEmployees.txt xyz.txt

.adminAccount .file.term-0.term .ssh demo1 file1.term sampl1

.assignement1.term-0.term .file1.term-0.term 2022-10-12-153007 employees.txt file2 sample

.bash\_history .jupyter-blobs-v0.db EmployeeManagement emplyees.txt muskan sample1

.bash\_profile .new.term-0.term apple f011 new.term sortedEmployees.txt

**Q12.Remove employees who do not have department**

**~$ cat specialEmployees.txt**

E1001 James FIN 50000 987654371

E1002 Smith BD 73000 987654381

E1003 Kelvin TECH 78000 987654341

E1004 Raj TECH 145000 987654351

E1005 Prem FIN 95000 987654321

E1006 Guru BD 195000 987654311

E1001 James FIN 50000 987654371

E1006 Guru BD 195000 987654311

Raj

Guru

**~$ awk '{if ($2 !="") print NR,$0}' specialEmployees.txt**

1 E1001 James FIN 50000 987654371

2 E1002 Smith BD 73000 987654381

3 E1003 Kelvin TECH 78000 987654341

4 E1004 Raj TECH 145000 987654351

5 E1005 Prem FIN 95000 987654321

6 E1006 Guru BD 195000 987654311

7 E1001 James FIN 50000 987654371

8 E1006 Guru BD 195000 987654311

**Q13.List employees from departments other than FIN**

**~$ awk '{if ($3 !="FIN") print $0}' employees.txt**

E1002 Smith BD 73000 987654381

E1003 Kelvin TECH 78000 987654341

E1004 Raj TECH 145000 987654351

E1006 Guru BD 195000 987654311