**PSG College of Technology**

**Department of Computer Applications**

**I MCA –UNIX Architecture & Programming Practice Assignment 3**

**Issue Date: 28/10/2022**

**Objective :** To understand Creating Files , Checking the permission using relative(Symbolic ) and Absolute modes and to manipulate the contents of files using head,tail, cut and paste commands.

**First study and practice about all these commands only then start doing this Assignment.**

**Instructions**

1. Record your session by Opening a script file named with the following convention:

* RollNo\_Practice\_Commands\_3

So the command for roll number 20mx101 would be,

$script 21mx101\_Practice\_Commands\_3

Once you give this a script file will get updated in the background recording your work in the shell.

1. When you close the shell and wok again later in the same day or the next day , open the script by giving the option as -a like ,

$script –a 21mx101\_Practice\_Commands\_3

This will help you append your work to the same script file instead of overwriting the previously created file.

1. Finally, after completing all the Questions , submit your script file only to the classroom.

**Activity 3 [ to be submitted only the script file following the naming convention given already. ]**

**Note : For the questions like study, note the behavior etc., type your understanding as the answer in the notepad file of your script file near that question number .**

**Wherever rollno is referred , use your own rollno not the one given in the document.**

**Objective :** To understand Creating Files , Checking the permission using relative(Symbolic ) and Absolute modes and to manipulate the contents of files using head,tail, cut and paste commands.

**File Manipulation**

**rollnumber directory means what you have created in Previous assignment.**

1. Move to your rollnumber directory.
2. Write a command which outputs your current UID.
3. Write a command that outputs the list of names of groups to which you belong as a user.
4. Write a command that outputs the your group id only.
5. Write a command to Identify your device.
6. Analyze the output of echo \*? It is similar to what command ?
7. Unix allows filenames to start with any spl characters including hyphen. Create a file beginning with a hyphen in its name ( -Trial1.txt ) using touch command. Create the file and show the directory listing.
8. Using rm command remove the file -Trial1.txt’ and now show the directory contents.
9. Create a file File1.txt and add few 10 lines of simple text into it.
10. Use a command to display only the first 5 lines of File1.txt
11. Use a command to display only the last 4 lines of File1.txt
12. Using direction create a file Ext\_File1.txt to contain only the first 3 lines and last 2 lines of File1.txt
13. Using vi editor or nano editor ( If you are working with Ubuntu , you could use any GUI editors like libreoffice etc., ) create the following database kind of file “Emp1.dat”which contains the details of ten differnet employees working in an organization. Here ‘ | ‘ is taken as delimiter for field separator.

C001|Ashok|BE|Engineer|Assembly|10/10/2005|55000|Coimbatore

C002|Kumar|ME|Head|Assembly|10/2/2002|75000|Chennai

C003|Aruna|MBA|Manager|HR|10/1/2005|70000|Madurai

C004|Bala|BE|Engineer|Production |1/3/2015|35000|Chennai

C005|Babu|MSC|Chemist|Production|10/3/2005|72000|Coimbatore

C006|Fathima|BE|Engineer|Sales|21/5/2016|45000|Coimbatore

C007|Suba|MTech|Head|Production|10/10/2005|75000|Madurai

C008|Gowri|DECE|Layman|Production|6/3/2018|1000|Trichy

C009|Jaga|DEEE|Worker|Shipment|6/3/2018|10000|Trichy

C010|Loganathan|DEEE|Worker|Sales|6/3/2018|10000|Trichy

1. Display the contents of the file Emp1.dat
2. Display only the names of all the employees in the file Emp1.dat
3. Display only the names and salary of all the employees in Emp1.dat
4. Create a new file “Personal” with the employee id, names and city name from Emp1.dat
5. Create another file “Salary” to have only salary of the employees in Emp1.dat
6. By pasting Personal and Salary file side by side, create a new file “Earnings” such that the Earnings file has only the file following fields . All fields to be separated by ‘|’.

empid|empname|Cityname|Salary

1. Display the contents of Personal, Salary and Earnings files.

**File Permissions**

1. Change to your roll number directory, and create a simple text file “Trial.txt” using cat command by adding few lines of text.
2. Check the default permission set for the file Trial.txt
3. Using relative (Symbolic) mode change the permission of this file Trial.txt such that only owner could read and write and make others do not have any permissions
4. Using Absolute mode change the permission of this file Trial.txt such that owner could read and execute and make others have only read permissions
5. Try changing the owner and group owner of this file .

**Following Questions are for Homework - Practice purpose. Need not be submitted in the Google classroom.**

1. Create a file and set its permissions so that the owner can execute this file, read and write to it, group members can execute and read it, and the others can only read the file. In chmod command use a symbolic way of specifying the permissions and also the octal numeric way
2. Upon doing an “ls-l” command you will see sequences of 10 characters that look similar the ones below. Briefly explain what each of these sequences means.

a)–rw-rw-r--

b)drwxr-x---

1. It is possible to set individual permissions for user, group and others using chmod. Review the documentation and answer the following questions:

a)How can you set the permission string to user read/write, group read, others read using chmod?

b)How can you revoke group write permissions on a file without changing any other permissions?

c)How can you grant user and group execute permissions without changing any other permissions?

6. Numeric file modes

6.1 What do the following numeric file modes represent:

(a) 666 (b)770 (c)640 (d)444