BTech – CSE 3rd Sememster   Software Lab -1 , CSL-201
Assignment – 1 (15 marks)

Note: All the steps **i) to xv)** to be executed in the terminal in same sequence, with the following respective **logins only.**

Roll no range (???)	Login ids
001 – 015, 041 – 050, 071 – 080, 101 – 110, 131 - 140	ssh -X BT18CSE???@10.18.10.201
016 – 030, 051 – 060, 081 – 090, 111 – 120, 141 – 151	ssh -X BT18CSE???@10.18.10.216
031 – 040, 061 – 070, 091 – 100, 121 – 130	ssh -X BT18CSE???@10.18.10.209

Deadline of completion : 24th Oct 2019, midnight.

-password is same as your roll no. string , i.e. BT18CSE001, if your the roll no.- 001.

-after successfull login and after completing your task, you need to properly logout using **"exit"** command **twice**, otherwise your executed commands will not be saved at server.

- Moreover, you can login to the above servers from any place within the campus with VNIT LAN(local area network).

- where were <...> is given that has to be replaced with the "string" derived from the description.

Sequence of Steps to be executed are:

i-a)   Create a directory with name as "ASSIGN1" in your home directory.

i-b)   Create a directory with name as <your roll no string> in "ASSIGN1", call it as "D1".

i-c)   Create a directory with name as <your last name> in "ASSIGN1", call it as "D2".

ii-a) Inside "D1" create a file with name as <last 4 characters of your roll no>, call it as file "F1". Add few random/rough contents about 6 lines into "F1" (using 'Emacs' editor), such that atleast two lines contains <your roll no.> string.

ii-b) Inside "D2" create a file (using 'vi' editor) with name as <your last name>, call it as file "F2". Add few random/rough contents into it, such that atleast 3 lines contains "VNIT Nagpur" string.

iii-a) execute the command to display the number of lines and characters present in the file "F1".

iii-b) execute the command from directory "ASSIGN1" to display the line numbers which contains <your roll no> from the file "F1".

iii-c) execute the command to store the output of the command in step iii-b) into a file with name "output_store1" in the directory "ASSIGN1".

iii-d) execute the command to store your last 5 commands executed on the terminal (currently) into a file with name "last5_cmd" in the directory "D1".

iv-a) execute the command to copy the content of whole directory "ASSIGN1" into the new directory with name "CP_ASSIGN1" in the home directory.

iv-b) execute the command to move the directory "CP_ASSIGN1" into "D2".

iv-c) execute the command to rename the directory "CP_ASSIGN1" to "REM_ASSIGN1".

iv-d) execute the command to delete the directory "D1" (i.e. with name as <your roll no string>) present in "REM_ASSIGN1".

iv-e) create a new directory with name "E0" in "ASSIGN1".

v-a)   execute the command to find all the files with name as <your last name> present in directory "ASSIGN1".

v-b)   execute the command find all empty folders present in "ASSIGN1" and delete them.

vi-a)   execute the command to give 'executable' permission to 'others' for the file "F1" present in "D1", using octal mode.

vi-b)   execute the command to give 'write' permission to 'group' for the file "F1" present in "D1", using symbolic mode.

vii-a)   execute the command to store all the previous command executed using 'cat' into the file "F1", with append mode.

vii-b)   execute the command to display the size of the default history file "HISTFILE".

viii-a)   execute the command to compare the files "F1" in "D1" with "F2" in "D2" and redirect its ouput to new file with name <last 4 characters of your roll no> in the directory "ASSIGN1", call this file as "F0", with single line command execution.

viii-b)   execute the command to get the 'ip address' and store it in the file "F0" in append mode, with single line command execution.

ix-a)   execute the command to print all the lines which does not contains <your roll no> from the file "F1".

ix-b)   execute the command to display and store all the lines which starts with a characters "VNIT Nagpur" from the file "F1" into the file "F2" with append mode, with single line command execution – using 'sed' or 'awk'.

x-a)   execute the command which modifies the file "F2" by deleting all the lines which contains "VNIT" string, with single line command execution – using 'sed' or 'awk'.

x-b)   execute the command to display all the lines which ends with any of the character {'z' or 'Z' or 'a'} from the file "F2" – using 'sed' or 'awk'.

xi)   execute the command to copy the file "F0" into your local machine home directory, using 'scp' command.

xii)   write and execute awk program to print the number of times <your roll no> is present in the file "F1".

xiii)   execute sed command to print line 2 to line 4 from the file "F1".

xiv)   execute the command to add blank line after each line which contains the string "VNIT" into the file "F2", with single line command execution – using 'sed' or 'awk'.

xv)   execute the command to replace the string <your roll no> with the string <your last name> in the file "F1".