Programming Assignment 6
Due Date : 4 / 21 / 2021
No later than 5:15 pm

NAME : _____

CS 4350 – 251 - Unix Systems Programming

Assignment Number: _____

Due Date: 4 / 21 / 2021

The above information must be entered on the top left side of the first page of your program as comments

Then write a C program that does the following :

1. Prompt the user to enter the name of the text file that needs to be created (for example p6in-1.txt) .
2. Using **System Command** , create a new input file (such as p6in-1.txt)
3. Use a **System Command** to display file permission status before changing the file mode.
4. Change the mode of the program such that only the user has read / write / execute permission.
5. Use a **System Command** to display file permission status after changing the file mode.
6. Append the following to text file
   Texas State University , Spring 2021 , Unix Programming
7. Close the input file .
8. Use **System Command** to display the content of the file.
9. Use **System Command** to Display the Current date and time
10. Display Time of last access of the file .
11. Use **System Command** to display the content of the file.
12. Display System name
13. Display Local host name
14. Display Host name
15. Display The process id
16. Display Parent process id
17. Display The priority level of the process
18. Display The file Name
19. Display The device
20. Display The inode

21. Display The file protection
22. Display Number of hard link
23. Display Owner's user ID
24. Display Owner's group ID
25. Display Owner's effective user ID
26. Display Size of text file
27. Display Block size for text file
28. Display Number of blocks allocated to text file
29. Append The following line to the text file :
    Last Step.
30. Using a **System Command** , redisplay the content of text file.
31. Display The time of last access of text file
32. **Rename** The file to be textfilename-2.txt (such as p6in-2.txt)
33. Using a **System Command** , display The content of the new text file
34. Use a **System Command** to Display The current date and time
35. **Remove** the new text files from your current Directory.
36. Using **System Command** , display the content of deleted text file.

Note :

Items numbers from 2 thru 36 must be implemented using functions. Some functions will require parameters and others will not.

Instructions :

1. The programs must be syntactically and logically correct. The program will be tested **using Zeus Server** at the university using the **simple gcc command followed by the filename.c** such as **gcc xxxx.c**
2. Look at the sample run and follow the format.
3. You must upload your solution **using Canvas** – Make sure you include the above as comments in your program.

   Make sure that you name your homework document as follows :

   PA6_FirstName_LastName.c

   For example , the file name should look something like : PA6_ Husain_Gholoom.c

   You must upload your programs on Canvas **no later than 5:15 pm on the due date**. **No late assignments will be accepted and no extension will be given.**

The following points will be deducted if:

- Compilation Errors, missing electronic copy, global variables / arrays , submitting .zip file. **(- 10 points)**

- Other **(at least 1.25 point)** if **any** of the following takes a place :

  - Logical Errors.
  - Incorrect program file name.
  - Incorrect input / output file names.
  - Not using system commands. (Commands used only with items 2 , 3 , 5 , 8 , 10 , 29 , 32 , 33 , and 35)
  - Not using functions (prototypes and definitions)
  - Incorrect Style **such as but not limited to** missing program documentations, missing Header comments, missing footer comments, incorrect output format , not replacing my name with your name … etc.

Sample Run: The Output :

System / File Manipulation Program

1. Enter File name to be created : p6in-1.txt
2. p6in-1.txt File is created.
3. File permission status is :
4. File mode is changed
5. File permission status is :
6. Text is appended to the file.
7. File is closed.
8. Content of the input file :
9. Current date and time is :
10. Time of last file access :
11. The content of the created file is :
12. System name :
13. Local host name :
14. Host name :
15. The process id :
16. Parent process id :
17. Priority level of the process :
18. The file Name is
19. The device is :
20. The inode is :
21. The file protection :
22. Number of hard links :
23. Owner's user ID :
24. Owner's group ID :
25. Owner's effective user ID :
26. Size of p6in-1.txt file :
27. Block size of p6in-1.txt file :
28. Number of blocks allocated to p6in-1.txt file :
29. New text is appended to p6in-1.txt file.
30. Redisplaying the content of p6in-1.txt file.
31. The time of last access of p6in-1.txt file :
32. Renamed The file to be p6in-2.txt .
33. The content of the new p6in-2.txt file :
34. The current date and time :
35. Removed p6in-2.txt files from current Directory.
36. Displaying the content of p6in-2.txt file.

April – 2021
Husain Gholoom