Programming Assignment 4
Due Date :   3 / 30 / 2020
No later than   5:30 pm

NAME / s : _____

Serial Number / s:

CS 4350 – 251 - Unix Systems Programming

Assignment Number: _____

Due Date: 3 / 30 / 2020

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. Creates a new input file (`zp4in.txt`   )
2. Ask the user to input number of lines of input to be inserted in the new file.
3. From the command line, Accept the lines from the keyboard and save them in created file (zp4in.txt)
4. Reopen the file again.
5. Display the content of the new created input file.
6. Count then display the number of Words in the input file.
7. Count then display the number of Small letters in input file
8. Count then display the number of Capital letters in the input file
9. Count then display the number of Digits in the input   file
10. Count then display the number of Spaces in the input file
11. Count then display the number of Special Symbols letters in the input file.
12. Copy the content of the input file without any spaces , changing all small letters to capital letters and vice versa to a new file (zp4out1.txt).
13. Reads the input file one line at a time, and writes these lines to a second file (zp4out2.txt). Add a line number for each line in the new file.
14. Display the content of the zp4out1.txt , zp4out2.txt .
15. Remove `zp4in.txt`   , zp4out1.txt , and zp4out2.txt files from your current Directory.

<u>Instructions :</u>

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**
2. No recursions are allowed. However you can use functions.
3. Must submit one hard copy that contains all your program. You may include the output of the program.
4. Design your own output format. However, the output must be clear to follow and understand.
5. You must upload your solution **using TRACS** – Make sure you include the above as comments in your program. **Everyone** must upload an electronic version of the program.

    Make sure that you name your homework document as follows :

        ZHW4S#.c   **Where S# is your Serial Number**

    For example , the file name should look something like :   ZHW4S89.c

    You must upload your programs no later than the starting of class time on the due date **no later than 5:30 pm**.   **No late assignments will be accepted.**

6. You must **also** turn in hard copy of your source code no later than the due date / time . Please turn one hard copy / group . Should the hard copy consist of more than one page , then , the hard copy must be **stapled**.   if you are unable to turn in a printout during class, you can take the program to the computer science department and hand it to the front desk personal (Comal 211) before the deadline. Make sure that the front office stamps the program. Make sure that include the date and time. Finally ,make sure that they place the program in my mailbox. Hardcopy must contain the script followed by sample run.

    DO NOT slide your program under my office door – It will **NOT** be accepted

The following points will be deducted if:

- Compilation Errors, missing electronic copy, missing the hardcopy, submitting .zip file. **(- 10 points)**

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

  - Logical Errors.
  - Unable to read the source code due to unclear printing
  - Incorrect program file name.
  - Incorrect input / output file names.
  - Hard copy is not stapled.
  - More than one hard copy per group.
  - Incorrect Style **such as but not limited to** missing program documentations, missing Header comments, missing footer comments, missing or incorrect serial number , not replacing my name with your name … etc.

Sample Run: The Output :

```
File Manipulation Program
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```
Implemented by Husain Gholoom
March – 30 – 2020
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