Logic Building Batch 2014

Assignment PART 5

File Handling

While writing the program follow some instructions as:-

- First write algorithm for given problem statement.
- Write a function wherever required.
- Write appropriate function name using camel case. Ex. OpenFile( )
- Write proper name for variables. Ex. int iNumber= 0; float fValue= 0.0;
- Use proper indentations.
- Use proper comments for important statements.
- Open the file in appropriate mode.
- Check whether all file handling functions are working properly or not by checking its return value.
- After file operations are completed close the file immediately.
- Write header for every function which contains
    - Function name
    - Input parameters
    - Output value
    - Description of function
- After writing the program write input and expected output.

File handling functions

- FILE * fopen(const char *filename, const char * mode);
- int fclose(FILE *stream);
- int fgetc(FILE *stream);
- int fputc(int c, FILE * stream);
- long int ftell(FILE * stream);
- int fgetpos(FILE *stream, fpos_t *pos);
- int fseek(FILE *stream,long int offset, int whence);
- int fsetpos(FILE *stream,fpos_t * pos);
- void rewind(FILE *stream);
- char* fgets(char *S, int n, FILE *stream);
- int fputs(char *s,FILE *stream);
- int fscanf(FILE *stream,char *format, …);
- int fprintf(FILE *stream,char *format, …);
- size_t fread(void *data,size_t size, size_t n, FILE *stream);
- size_t fwrite(void *data,size_t size, size_t n, FILE *stream);
- int open(const char *name, int flags, mode_t mode);
- int creat(const char *name, mode_t mode);
- int read(int fd, void *buf,size_t len);
- int write(int fd, void *buf,size_t len);
- int close(int fd);
- long int lseek(int fd, long int pos, int origin);

Write the following programs

1. Write a program which accept file name from user and print its first five characters by using library functions.
2. Write a program which accept file name from user and print its last ten characters by using library functions.
3. Write a program which accept file name from user and display contents of file by using library functions.
4. Write a program which accept file name from user and count number of occurrences of characters in small case and in capital case by using library functions.
5. Write a program which accept file name from user and count number of occurrences of vowels (a, e, i, o, u) by using library functions.
6. Write a program which accept file name from user and count number of occurrences of characters in small case and in capital case by using library functions.
7. Write a program which accept file name from user and count number of white spaces, tabs, new lines by using library functions.
8. Write a program which accept file name from user and print two characters after every fifty bytes by using library functions.
9. Write a program which accept file name from user and print its size by using library functions.(without calling stat function)
10. Write a program which accept file name from user and print number of occurrence of "include" word in that file.
11. Write a program which accept file name from user and count number of words and lines, characters from that file.
12. Write a program which accept file name from user and accept word from user and print number of occurrence of that word in that file also print offset at which that word occur.
13. Write a program which accept file name from user and reverse all occurrences of "include" word in that file.
14. Write a program which accept file name from user and create one new file and copy the contents in that new file by using library functions.

15. Write a program which accept file name from user and copy the contents in some other file in reverse order.
16. Write a program which accepts two file names from user and copy contents of one file at the end of second file by using library functions.
17. Write a program which accepts two file names from user and compare contents of those files by using library functions.
18. Write a program which accept file name from user and create one new file and copy alternate lines from source file in that new file by using library functions.
19. Write a program which accept file name from user and accept contents from user and write that contents in file by using library functions.
20. Write a program which accept information of 5 students from user and insert that information into file by using library functions.
21. Write a program which accept file name from user which contains information of student. Print all information of such a student whose name is "Vibhav" and salary is 180000/- by using library functions.
22. Write a program which accept executable file name from user and create same executable on "D" drive with name "demo.exe".
23. Write a program which accept file name from user and create new encrypted file. Apply decryption logic also to generate original file.

Write all above programs by using system calls.