

File I/O

- FILE : data type for pointer to a file
- EOF : stands for End Of File; a character which is present at the end of every file
- Number of Characters: `c != EOF`
- Number of Lines : `c == '\n'`

`fopen(file_name,mode)`

- "r" : read mode
 - : the file has to exist, else it returns NULL
 - : returns file pointer to the beginning of the file
- "w" : write mode
 - : it creates the file, if it doesn't exist
 - : if the file exist, it erases the previous data of the file
- "a" : append mode
 - : write into the file without erasing previous data
 - : returns file pointer to the end of the original file
 - : it creates the file, if it doesn't exist
- "r+" : extension of read mode
 - : can also write into the file but in overwrite mode not insert mode
- "w+" : extension of write mode
 - : can also read the file
- "a+" : extension of append mode
 - : can also read the file

`fclose(file_pointer)`

- close the specified file

`fgetc(file_pointer)`

- reads a character from the specified file
- moves the file pointer by one character

`fputc(char,file_pointer)`

- writes a character to the specified file
- moves the file pointer by one character

`ftell(file_pointer)`

- tells the location of the pointer within the file
- returns a long int
- beginning of file = 0

fseek(file_pointer, offset, from where)

- offset : number of characters you want to move the file pointer by
 - : to move back, use minus('-') sign
 - : use a 'L' after the number of characters; to specify long int
- SEEK_END : from the end of the file
- SEEK_SET : from the beginning of the file
- SEEK_CUR : from the current location

fprintf(file_pointer, format_string, arguments)

- prints(write) into the file rather than on screen
- rest all similar to printf(format_string, arguments)

fscanf(file_pointer, format_string, arguments)

- scans(read) from the file rather than from screen
- rest all similar to scanf(format_string, arguments)

rewind(file_pointer)

- moves the file pointer to the beginning of the file
- alternative to : fseek(file_pointer , 0L , SEEK_SET)