


WORKING WITH FILES IN C

- `stdio.h` contains a function called `fopen()` for opening files in C
- When working with files, we have to declare a pointer of type `FILE`
- This declaration helps us to work with files through C program.
- The syntax for opening a file in standard I/O is:
 - `ptr = fopen("filename", "mode")`
- In order to read/write to a file, we can use `fscanf/fprintf` function.
 - `fscanf(fp, "%s", buff); fprintf(fptr, "Marks= %d", salary);`
- `fclose(fptr);` //fptr is the file pointer associated with file to be closed

MODE & DESCRIPTION

Mode		Description
r		Opens an existing text file for reading
w		Opens a file for writing. If it doesn't exist, then a new file is created. Writing starts from the beginning of the file.
a		Opens a text file for writing in appending mode. If it does not exist, then a new file is created. The program will start appending content to the existing file content.
r+		This mode will open a text file for both reading and writing
w+		Opens a text file for both reading and writing. It first truncates the file to zero length if it exists, otherwise creates a file if it does not exist.
a+		Opens a text file for both reading and writing. It creates the file if it does not exist. The reading will start from the beginning but writing can only append to file.

OTHER FILE I/O FUNCTIONS IN C

fprintf

fscanf

- There are various functions provided by C standard library to read and write a file, character by character, or in the form of a fixed length string

- Some of them are:

- fputc

- fputs

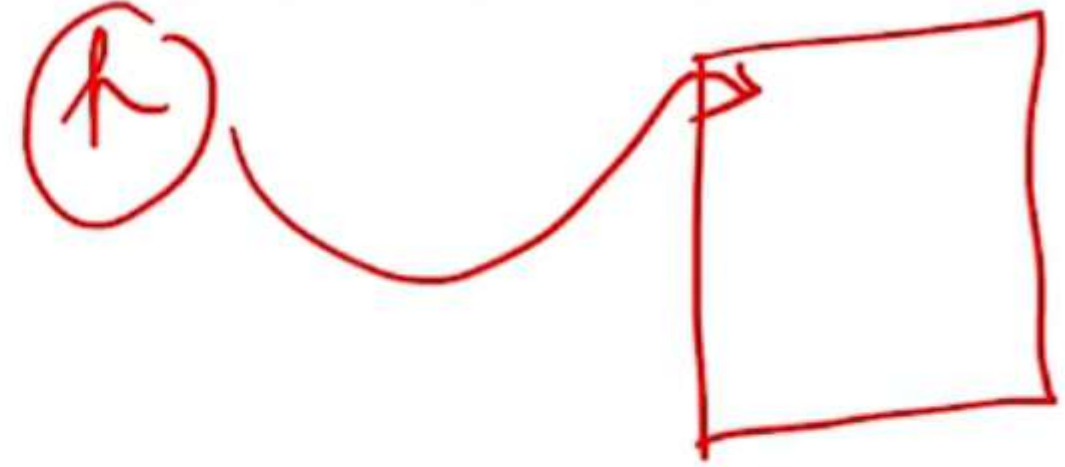
- fgetc

- fgets

→ character
✓
→ string
✓
✓
✓

FPUTC FUNCTION IN C

file putc character



■ Simplest function to write characters to a file is fputc

■ Syntax of fputc goes as follows:

- int fputc(character, FILE pointer);
- It returns the written character written on success.
- On failure it returns EOF
- The EOF is a constant defined in the header file stdio.h.

FPUTS IN C

file
put
string

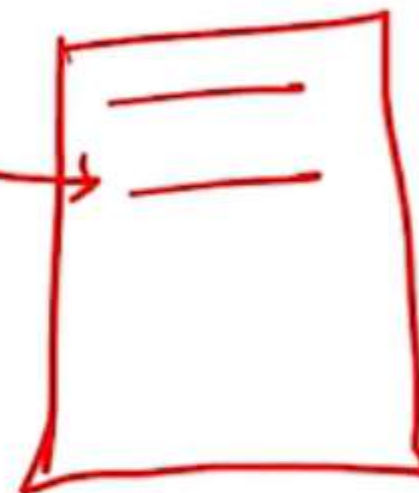
- fputs function is used to write a null terminated string to a file in c

■ `int fputs(const char *s, FILE *fp);`

=



"harry"



FGETC FUNCTION IN C

file ↓ get ↓ character

- Simplest function to read characters from a file is fgetc
- Syntax of fgetc goes as follows:
 - `int fgetc(FILE * fp);`
 - It returns the read character on success.
 - On failure it returns EOF
 - The EOF is a constant defined in the header file **stdio.h**.



h

harry

FGETS IN C

get & string

■ fgetc function is used to ~~write~~ read a null terminated string to a file in c

■ ~~int fgetc(const char *s, FILE *fp);~~

→ int fgetc (const char^{*}s, int n,
FILE^{*}fp)

"harry"

harry-