

C Language Tutorial (Basic to Advanced)

Topics to be covered :

- Installation + Setup
- Chapter 1 - Variables, Data types + Input/Output
- Chapter 2 - Instructions & Operators
- Chapter 3 - Conditional Statements
- Chapter 4 - Loop Control Statements
- Chapter 5 - Functions & Recursion
- Chapter 6 - Pointers
- Chapter 7 - Arrays
- Chapter 8 - Strings
- Chapter 9 - Structures
- Chapter 10 - File I/O
- Chapter 11 - Dynamic Memory Allocation

File I/O (Chapter 10)

```
# include <stdio.h>

int main() {
    FILE *fptr;
    //Reading a file
    char ch;
    fptr = fopen("Test.txt", "r");
    if(fptr == NULL) {
        printf("doesn't exist!\n");
    } else {
        fscanf(fptr, "%c", &ch);
        printf("character in file is : %c\n", ch);
        fscanf(fptr, "%c", &ch);
        printf("character in file is : %c\n", ch);
        fclose(fptr);
    }

    //Writing in a file
    ch = 'M';
    fptr = fopen("NewFile.txt", "w");
```

```
fprintf(fptr, "%cANGO", ch);
fclose(fptr);

//fgets
fptr = fopen("NewFile.txt", "r");
printf("character in file is : %c\n", fgetc(fptr));
printf("character in file is : %c\n", fgetc(fptr));
printf("character in file is : %c\n", fgetc(fptr));
printf("character in file is : %c\n", fgetc(fptr));
printf("character in file is : %c\n", fgetc(fptr));
fclose(fptr);

//fputc
fptr = fopen("NewFile.txt", "w");
fputc('a', fptr);
fputc('p', fptr);
fputc('p', fptr);
fputc('l', fptr);
fputc('e', fptr);
fclose(fptr);

//read the full file (EOF)
fptr = fopen("NewFile.txt", "r");
ch = fgetc(fptr);
while(ch != EOF) {
    printf("%c", ch);
    ch = fgetc(fptr);
}
printf("\n");
fclose(fptr);

return 0;
}
```