20-06-2024

File Handling Functions :-

1. getc( ) :- It gets a character in a file
2. putc( ) :- It puts a character
3. getw( ) :- It gets / reads an integer
4. putw( ) :- It points an integer
5. fgets ( ) :- It scans a string
6. puts ( ) :- It points a string
7. feof ( ) :- It checks whether a file reached END or Not
8. ferror ( ) :- It checks whether an error occured in a file [OR] not
9. rewind ( ) :- It puts the file pointer at the begening
10. ftell ( ) :- It tells the distance between the starting & file pointer.

[OR]

It is used to find out the position of the file pointer in the file with respect to starting of the file.

11. fseek ( ) :- It moves file pointer to random position.

fseek ( ) :-

fseek (ptr, offset value, mode)

0 --- beg
1 --- current
2 --- end

SYNTAX :- int fseek (FILE *pointer, long int offset, int position);

-> fseek (P, m, 0) // move file pointer m+1 bytes forward from beginning of the file

-> fseek (P, m, 1) // moves file pointer m bytes forward from current position

-> fseek (P, -m, 1) // moves file pointer 'm' bytes backward from current position

-> fseek (P, -m, 2) // moves file pointer 'm' bytes backward from the end of the file

-> fseek (P, 0, 0) // stay at beginning beginning of the file similar to rewind

-> fseek (P, 0, 1) // stay at current position

-> fseek (P, 0, 2) // stay at end of file

→ fscanf (stdin, " ", &var1...)

fptr → Pointer

- fprintf (stdout, " ", var1, var2)

Ex:-

```
#include <stdio.h>
main()
{
  int a, b, c;
  fprintf (stdout, "Enter a, b: ");
  fscanf (stdin, "%d %d", &a, &b);
  c = a+b;
  fprintf (stdout, "%d", c);
}
```

[OR]

→
```
#include <stdio.h>
main()
{
  int a, b, c;
  fprintf (stdout, "Enter a, b: ");
  fscanf (stdin, "%d %d", &a, &b);
  c = a+b;
  fprintf (stdout, "sum of %d and %d is %d",
                    a, b, c);
}
```

Q:- WAP to print average of student marks in a FILE :-

-> # include < stdio.h >

main ()

{

char name [20];

int a, b, c, n, i;

float avg;

FILE *P;

P = fopen ("marks.txt", "w");

fprintf (stdout, "Enter no of students ");

fscanf (stdin, "%d", &n);

printf ("Enter student details ");

for (i = 0; i <= n; i++)

{

fscanf (stdin, "%s %d %d %d", name, &a,

&b, &c);

avg = (float) (a+b+c) / 3;

fprintf (P, "%s %d %d %d %f \n", name, a, b,

c, avg);

}

fclose (P);

}

-> #include <stdio.h>

main()

{

float a = 2.456780;

printf("%f\n", a); // 2.456780

printf("%.2f\n", a); // 2.46

printf("%12f\n", a); // ␣ 2.456780

printf("%12.2f\n", a); // ␣␣␣␣␣␣␣␣␣2.46

char b[20] = "Sreedhar";

printf("%12s\n", b); // ␣ Sreedhar

printf("%12.4s\n", b); // ␣␣␣␣␣␣␣␣ Sree

int i;

}

-> #include <stdio.h>

main()

{

int i;

char b[20] = "Abcdefgh";

for(i=1; i<=8; i++)

printf("%12.*s\n", i, b);

for(i=8; i>=1; i--)

printf("%12.*s\n", i, b);

}

o/p:-

A
Ab
Abc
Abcd
Abcde
Abcdef
Abcdefg
Abcdefgh

-> for(i=8; i>=1; i++)

o/p:- Abcdefgh

:

Abcdefgh -> n times No STOP

Printf:-

```
#include <stdio.h>
main()
{
    int x, a=5, b=6;
    x = printf("a+b=%d, a-b=%d", printf("good"),
        printf("bad"));
    printf("\n%d", x);
}
```

O/P:- bad good a+b=4, a-b=3

||

4 = good
3 = bad

printf("a+b=%d, a-b=%d", 4, 3);

-> Prints string a+b=4, a-b=3 to the console

-> printf() function returns total no of characters printed

"a+b=4" i.e 5 charaters [a + b = 4]
1 2 3 4 5

", a-b=3" i.e 6 charaters [, a - b = 3]
1 2 3 4 5 6

TOTAL = 5 + 6 = 11 characters

-> # include < stdio.h >

main ()

{

int a, a, b;

printf ("a+b= %d %d", a+b, scanf ("%d %d",

& a, & b), printf ("Enter a, b"));

printf ("\n %d", a);

}

O/P :- Enter a, b : 2

3

a+b= 5 2