

SEQUENTIAL ACCESS FILE

The data items in a sequential access file are arranged one after another in a sequence. Each data item can be accessed in the same order in which they have been stored. It is only possible to read a sequential file from the beginning. To access a particular data within the sequential access file, data has to be read one data at a time, until the required data is reached.

Reading data from a sequential file can be done using the various C functions like `fscanf()`, `fgets()`, `fgetc()`, `fread()`. Writing data to a sequential file can be done using the various C functions like `fprintf()`, `fputs()`, `fputc()`, `fwrite()`.

EXAMPLE PROGRAM:

Finding average of numbers stored in sequential access file

```
#include <stdio.h>
#include <math.h>
// Read the numbers and return average
float average(FILE *input)
{
    float term,sum;
    int n;
    sum = 0.0;
    n = 0;
    while(!feof(input))
    {
        fscanf(input,"%f",&term);
        sum = sum + term;
        n = n + 1;
    }
    return sum/n;
}
int main ()
{
    FILE *input;
    float avg;
```

```
    input = fopen("data.txt","r");
    avg = average(input);
    fclose(input);
    printf("The average of the numbers is %f.\n",avg);
    return 0;
}
```

Output:

```
/* Data in data.txt
10 11 12 13 14 15. */
The average of the numbers is 12.5
```