**Experiment-34:Consider a file system where the records of the file are stored one after another both physically and logically. A record of the file can only be accessed by reading all the previous records. Design a C program to simulate the file allocation strategy.**

**Aim:**  
To simulate the file allocation strategy where records of the file are stored one after another both physically and logically, and a record can only be accessed by reading all the previous records.

**Procedure:**

1. Take the number of records in the file as input.
2. Store the records sequentially in memory (using an array).
3. Access a record by sequentially reading all the previous records (simulating the behavior of the allocation strategy).
4. Display the records as they are accessed.

**C Program:**

#include <stdio.h>

int main() {

int n;

printf("Enter the number of records in the file: ");

scanf("%d", &n);

int file[n];

printf("Enter the records: \n");

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

printf("Record %d: ", i + 1);

scanf("%d", &file[i]);

}

int record;

printf("Enter the record number to access (1 to %d): ", n);

scanf("%d", &record);

if (record < 1 || record > n) {

printf("Invalid record number.\n");

} else {

printf("Accessing records sequentially:\n");

for (int i = 0; i < record; i++) {

printf("Record %d: %d\n", i + 1, file[i]);

}

}

return 0;

}

Output:

