

# Write a C program to simulate disk scheduling algorithms.

## a) FCFS

```
#include <stdio.h>
#include <stdlib.h> // Added for the abs() function

int main() {
    int n, i, start, totalHeadMovement = 0;

    printf("Enter the number of disk requests: ");
    scanf("%d", &n);

    int requests[n];

    printf("Enter the disk requests:\n");
    for(i = 0; i < n; i++) {
        scanf("%d", &requests[i]);
    }

    printf("Enter the starting position of the disk head: ");
    scanf("%d", &start);

    printf("\nDisk Scheduling (FCFS):\n");

    int prev = start;
    for(i = 0; i < n; i++) {
        totalHeadMovement += abs(requests[i] - prev);
        printf("Move from %d to %d\n", prev, requests[i]);
        prev = requests[i];
    }

    printf("\nTotal Head Movement = %d\n", totalHeadMovement);
    return 0;
}
```

### Output

```
Enter the number of disk requests: 2
Enter the disk requests:
36
63
Enter the starting position of the disk head: 3

Disk Scheduling (FCFS):
Move from 3 to 36
Move from 36 to 63

Total Head Movement = 60
```