

### c) SSTF

```
#include <stdio.h>
#include <stdlib.h>

void sstfDiskScheduling(int requests[], int n, int start) {
    int totalHeadMovement = 0;
    int visited[n];
    int count = 0;

    // Initialize visited array to keep track of processed requests
    for (int i = 0; i < n; i++) {
        visited[i] = 0;
    }

    printf("Disk Scheduling (SSTF):\n");

    int prev = start;
    while (count < n) {
        int minDistance = 999999; // Set to a large value
        int minIndex = -1;

        // Find the request with the shortest seek time
        for (int i = 0; i < n; i++) {
            if (!visited[i]) {
                int distance = abs(requests[i] - prev);
                if (distance < minDistance) {
                    minDistance = distance;
                    minIndex = i;
                }
            }
        }

        // Mark the selected request as visited
        visited[minIndex] = 1;
        totalHeadMovement += minDistance;

        // Display the head movement
        printf("Move from %d to %d\n", prev, requests[minIndex]);
        prev = requests[minIndex];
        count++;
    }

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

int main() {
    int n, start;
```

```

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

int requests[n];

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

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

sstfDiskScheduling(requests, n, start);

return 0;
}

```

## Output

```

Enter the number of disk requests: 2
Enter the disk requests:
3
8
Enter the starting position of the disk head: 2
Disk Scheduling (SSTF):
Move from 2 to 3
Move from 3 to 8

Total Head Movement = 6

=== Code Execution Successful ===

```