

//Disk Scheduling Algorithm: SSTF

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

```
#define max 25
```

```
void sort(int *arr, int n) {  
    for (int i = 0; i < n; i++) {  
        for (int j = 0; j < n - i - 1; j++) {  
            if (arr[j] > arr[j + 1]) { // Compare arr[j] with arr[j+1]  
                int temp = arr[j];  
                arr[j] = arr[j + 1];  
                arr[j + 1] = temp;  
            }  
        }  
    }  
}
```

```
int main() {  
    int tracks;  
    printf("Enter number of tracks: ");  
    scanf("%d", &tracks);
```

```
int n;
printf("Enter number of track numbers in queue: ");
scanf("%d", &n);
int tnums[n];
int head;
printf("Enter initial position of read/write head: ");
scanf("%d", &head);
printf("Enter track numbers in queue: \n");
int left[max], right[max], lp = 0, rp = 0;
for (int i = 0; i < n; i++) {
    int s;
    printf("Enter track number %d: ", i + 1); // Added a colon after the prompt
    scanf("%d", &s);
    if (!(s > 0 && s < tracks)) {
        printf("Invalid track number...\nEnter again: ");
        scanf("%d", &s);
    } else {
        if (s <= 50) {
            left[lp] = s;
            lp++;
        } else if (s > 50) {
```

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        right[rp] = s;
        rp++;
    } else {
        continue;
    }
}
}
sort(left, lp);
sort(right, rp);
int total = 0;
for (int i = lp - 1; i >= 0; i--) { // Changed i++ to i--
    total += abs(head - left[i]);
    head = left[i];
}
for (int i = 0; i < rp; i++) {
    total += abs(head - right[i]);
    head = right[i];
}
printf("Total number of track movements: %d", total);
return 0;
}

```

/\*Output:

Enter number of tracks: 200

Enter number of track numbers in queue: 7

Enter initial position of read/write head: 50

Enter track numbers in queue:

Enter track number 1: 82

Enter track number 2: 170

Enter track number 3: 43

Enter track number 4: 140

Enter track number 5: 24

Enter track number 6: 16

Enter track number 7: 190

Total number of track movements: 208

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