

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  int main()
4  {
5      int RQ[100],i,j,n,TotalHeadMoment=0,initial,size,move;
6      printf("Enter the number of Requests\n");
7      scanf("%d",&n);
8      printf("Enter the Requests sequence\n");
9      for(i=0;i<n;i++)
10         scanf("%d",&RQ[i]);
11     printf("Enter initial head position\n");
12     scanf("%d",&initial);
13     printf("Enter total disk size\n");
14     scanf("%d",&size);
15     printf("Enter the head movement direction for high 1 and for low 0\n");
16     scanf("%d",&move);
17
18     for(i=0;i<n;i++)
19     {
20         for( j=0;j<n-1;j++)
21         {
22             if(RQ[j]>RQ[j+1])
23             {
24                 int temp;
25                 temp=RQ[j];
26                 RQ[j]=RQ[j+1];
27                 RQ[j+1]=temp;
28             }
29         }
30     }
31
32     int index;
33     for(i=0;i<n;i++)
34     {
```

```
35 {
36     if(initial<RQ[i])
37     {
38         index=i;
39         break;
40     }
41 }
42
43
44 if(move==1)
45 {
46     for(i=index;i<n;i++)
47     {
48         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
49         initial=RQ[i];
50     }
51
52     TotalHeadMoment=TotalHeadMoment+abs(size-RQ[i-1]-1);
53
54     TotalHeadMoment=TotalHeadMoment+abs(size-1-0);
55     initial=0;
56     for( i=0;i<index;i++)
57     {
58         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
59         initial=RQ[i];
60     }
61 }
62
63
64 else
65 {
66     for(i=index-1;i>=0;i--)
67     {
68         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
69         initial=RQ[i];
70     }
```

```
54     TotalHeadMoment=TotalHeadMoment+abs(size-1-0);
55     initial=0;
56     for( i=0;i<index;i++)
57     {
58         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
59         initial=RQ[i];
60     }
61 }
62 }
63
64 else
65 {
66     for(i=index-1;i>=0;i--)
67     {
68         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
69         initial=RQ[i];
70     }
71
72     TotalHeadMoment=TotalHeadMoment+abs(RQ[i+1]-0);
73
74     TotalHeadMoment=TotalHeadMoment+abs(size-1-0);
75     initial =size-1;
76     for(i=n-1;i>=index;i--)
77     {
78         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
79         initial=RQ[i];
80     }
81 }
82 }
83
84 printf("Total head movement is %d",TotalHeadMoment);
85 return 0;
86 }
87 }
```

C:\Users\kadiv\OneDrive\Documents\C-SCAN scheduling.exe

Enter the number of Requests

10

Enter the Requests sequence

50

23

45

12

67

49

43

24

56

95

Enter initial head position

43

Enter total disk size

119

Enter the head movement direction for high 1 and for low 0

1

Total head movement is 236

Process exited after 47.51 seconds with return value 0

Press any key to continue . . .



20:41
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