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

int main()
{
    int RQ[100], i, j, n, TotalHeadMoment = 0, initial, size, move;
    printf("Enter the number of Requests\n");
    scanf("%d", &n);
    printf("Enter the Requests sequence\n");
    for (i = 0; i < n; i++)
        scanf("%d", &RQ[i]);
    printf("Enter initial head position\n");
    scanf("%d", &initial);
    printf("Enter total disk size\n");
    scanf("%d", &size);
    printf("Enter the head movement direction for high 1 and for low 0\n");
    scanf("%d", &move);

    int index;

    for (i = 0; i < n; i++)
    {
        for (j = 0; j < n - i - 1; j++)
        {
            if (RQ[j] > RQ[j + 1])
            {
                int temp;
                temp = RQ[j];
                RQ[j] = RQ[j + 1];
                RQ[j + 1] = temp;
            }
        }
    }

    for (i = 0; i < n; i++)
    {
        if (initial < RQ[i])
        {
            index = i;
            break;
        }
    }
    for (i = index; i < n; i++)
    {
        TotalHeadMoment += abs(RQ[i] - initial);
        initial = RQ[i];
    }

    TotalHeadMoment += abs(size - 1 - RQ[n - 1]);
    initial = size - 1;

    for (i = index - 1; i >= 0; i--)
    {
        TotalHeadMoment += abs(RQ[i] - initial);
        initial = RQ[i];
    }

    printf("Total head movement is %d\n", TotalHeadMoment);
    return 0;
}

```

Enter the number of Requests

3

Enter the Requests sequence

5 4 8

Enter initial head position

4

Enter total disk size

100

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

1

Total head movement is 190

sapatevaibhav@sapatevaibhav-mint ~/D/OSL (master)> gcc pr8.c -o pr8 && pr8

Enter the number of Requests

4

Enter the Requests sequence

3 2 5 4

Enter initial head position

4

Enter total disk size

100

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

0

Total head movement is 192

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