```
#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: ");
	scanf("%d", &n);
	printf("Enter the Requests sequence:\n");
	for (i = 0; i < n; i++)
	scanf("%d", &RQ[i]);
	printf("Enter initial head position: ");
	scanf("%d", &initial);
	printf("Enter total disk size: ");
	scanf("%d", &size);
	printf("Enter the head movement direction (1 for high, 0 for low): ");
	scanf("%d", &move);
	for (i = 0; i < n; i++)
	{
		for (j = 0; j < n - i - 1; j++)
		{
			if (RQ[j] > RQ[j + 1]) {
			 int temp = RQ[j];
			RQ[j] = RQ[j + 1];
			RQ[j + 1] = temp;
		}
	}
}
int index;
for (i = 0; i < n; i++)
{
	 if (initial < RQ[i])
	 {
```

```
                index = i;
                break;
        }
}
if (move == 1)
{
        for (i = index; i < n; i++) {
        TotalHeadMoment += abs(RQ[i] - initial);
        initial = RQ[i];
}
 TotalHeadMoment += abs(size - RQ[i - 1] - 1);
  initial = size - 1;
  for (i = index - 1; i >= 0; i--)
  {
        TotalHeadMoment += abs(RQ[i] - initial);
         initial = RQ[i];
   }
   else
   {
        for (i = index - 1; i >= 0; i--)
        {
                TotalHeadMoment += abs(RQ[i] - initial);
                initial = RQ[i];
        }
        TotalHeadMoment += abs(RQ[i + 1] - 0);
        initial = 0;
        for (i = index; i < n; i++)
        {
                TotalHeadMoment += abs(RQ[i] - initial);
                initial = RQ[i];
        }
    }
```

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