```
#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);

   // logic for Scan disk scheduling

      /*logic for sort the request array */
   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;
         }

      }
   }

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

   // if movement is towards high value
   if(move==1)
   {
      for(i=index;i<n;i++)
      {
         TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
         initial=RQ[i];
```

```
        }
        //  last movement for max size
        TotalHeadMoment=TotalHeadMoment+abs(size-RQ[i-1]-1);
        initial = size-1;
        for(i=index-1;i>=0;i--)
        {
            TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
            initial=RQ[i];

        }
    }
    // if movement is towards low value
    else
    {
        for(i=index-1;i>=0;i--)
        {
           TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
           initial=RQ[i];
        }
        //  last movement for min size
        TotalHeadMoment=TotalHeadMoment+abs(RQ[i+1]-0);
        initial =0;
        for(i=index;i<n;i++)
        {
            TotalHeadMoment=TotalHeadMoment+abs(RQ[i]-initial);
            initial=RQ[i];

        }
    }

    printf("Total head movement is %d",TotalHeadMoment);
    return 0;
}
/*Output:-

Enter the number of Request
8
Enter the Requests Sequence
95 180 34 119 11 123 62 64
Enter initial head position
50
Enter total disk size
200
Enter the head movement direction for high 1 and for low 0
1
Total head movement is 337*/
```