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Sibran

Q2

```
#include <stdio.h>
int absolutevalue (int);
void main() {
    int queue [25], n, headPosition, i, j, k, seek = 0,
    maxchange;
    int difference, temp, queue1[20], queue2[20],
    temp1 = 0, temp2 = 0;

    printf("Enter the maximum range of disk:");
    scanf("%d", &maxrange);

    printf("Enter the number of queue required:");
    scanf("%d", &n);

    printf("Enter the initial head position");
    scanf("%d", &headPosition);

    printf("Enter the disk position to be read (queue)");
    for(i = 1; i <= n; i++) {
        scanf("%d", &temp);
        if (temp > headPosition)
        {
            queue1[temp] = temp;
            temp1++;
        }
    }
}
```

```

else {
    queue 2[temp] = temp;
    temp2++;
}
}
for (i=0; i < temp-1; i++)
{
    for (j=i+1; j < temp-1; j++) {
        if (queue 1[i] > queue 1[j]) {
            temp = queue 1[i];
            queue 1[i] = queue 1[j];
            queue 1[j] = temp;
        }
    }
}

```

```

for (i=1; j=0; j < temp1; i++, j++) {
    queue [i] = queue 1[j];
}

```

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queue [i] = maxrange;

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for (i=temp1+2; j=0; j < temp2; i++, j++) {
    queue [i] = queue 2[j];
}

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queue [i] = 0;
queue [0] = mad position;

```

```

for (j=0; j <= h; j++) {

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    difference = absolute value (queue [j+1] -
    queue [j]);

```

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$seek = seek + difference;$

`printf(" disk head moves from position %d to %d
which seeks %d \n", queue[j], queue[j+1],
difference.`

`}`

`printf(" total seek time %d \n", seek);`

`int absolute (int x)`

`{`

`if (x > 0) {`

`return x;`

`else`

`return x*-1;`

`}`

`}`

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FILE EDIT

OUTPUT

DEBUG CONSOLE

TERMINAL

```
Enter the maximum range of Disk: 50
Enter the number of queue requests: 7
Enter the initial head position: 24
Enter the disk positions to be read(queue): 12 26 24 4 42 8 50
Disk head moves from position 24 to 26 with Seek 2
Disk head moves from position 26 to 42 with Seek 16
Disk head moves from position 42 to 50 with Seek 8
Disk head moves from position 50 to 50 with Seek 0
Disk head moves from position 50 to 24 with Seek 26
Disk head moves from position 24 to 12 with Seek 12
Disk head moves from position 12 to 8 with Seek 4
Disk head moves from position 8 to 4 with Seek 4
Total Seek Time= 72
PS C:\Users\acer\Desktop\array practice.c>
```