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Aim:	Write C programs to simulate implementation of Disk Scheduling Algorithms: FCFS

Aim: Write C programs to simulate implementation FCFS Disk Scheduling Algorithm.

```
#include<stdio.h>
int main()
{
int queue[20],n,head,i,j,k,seek=0,max,diff;
float avg;
 printf("Enter the max range of disk\n");
scanf("%d",&max);
 printf("Enter the size of queue request\n");
scanf("%d",&n);
 printf("Enter the queue of disk positions to be read\n");
for(i=1;i<=n;i++)
scanf("%d",&queue[i]);
 printf("Enter the initial head position\n");
scanf("%d",&head);
queue[0]=head;
for(j=0;j<=n-1;j++)
 {
 diff=abs(queue[j+1]-queue[j]);
seek+=diff;
 printf("Disk head moves from %d to %d with seek %d\n",queue[j],queue[j+1],diff);
 }
 printf("Total seek time is %d\n",seek);
avg=seek/(float)n;
 printf("Average seek time is %f\n",avg);
return 0;
}
```

OUTPUT: (All the test cases are included):

```
┌──(kali㉿kali)-[~/C27/lab9]
└─$ vi lab9.c

┌──(kali㉿kali)-[~/C27/lab9]
└─$ gcc lab9.c

┌──(kali㉿kali)-[~/C27/lab9]
└─$ ./a.out
Enter the max range of disk
200
Enter the size of queue request
8
Enter the queue of disk positions to be read
90 120 35 122 38 128 65
68
Enter the initial head position
50
Disk head moves from 50 to 90 with seek 40
Disk head moves from 90 to 120 with seek 30
Disk head moves from 120 to 35 with seek 85
Disk head moves from 35 to 122 with seek 87
Disk head moves from 122 to 38 with seek 84
Disk head moves from 38 to 128 with seek 90
Disk head moves from 128 to 65 with seek 63
Disk head moves from 65 to 68 with seek 3
Total seek time is 482
Average seek time is 60.250000

┌──(kali㉿kali)-[~/C27/lab9]
└─$
```

Result: Thus the program was executed and verified successfully.