

EXP 37: Construct a C program to simulate the First Come First Served disk scheduling algorithm.

```
#include <stdio.h>

#include <stdlib.h>

void FCFS(int requests[], int n, int head) {
    int seekCount = 0;
    int distance;

    printf("\nDisk Head Movement:\n");
    printf("%d", head);

    for (int i = 0; i < n; i++) {
        distance = abs(requests[i] - head);
        seekCount += distance;
        head = requests[i];
        printf(" -> %d", head);
    }

    printf("\nTotal Seek Time: %d\n", seekCount);
    printf("Average Seek Time: %.2f\n", (float)seekCount / n);
}

int main() {
    int n, head;

    printf("Enter number of disk requests: ");
    scanf("%d", &n);
```

```

int requests[n];

printf("Enter disk request queue: ");

for (int i = 0; i < n; i++) {
    scanf("%d", &requests[i]);
}

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

FCFS(requests, n, head);

return 0;
}

```

Sample Output

```

Enter number of disk requests: 6
Enter disk request queue: 45 34 67 888 675 456
Enter initial head position: 0

Disk Head Movement:
0 -> 45 -> 34 -> 67 -> 888 -> 675 -> 456
Total Seek Time: 1342
Average Seek Time: 223.67

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Process exited after 7.088 seconds with return value 0
Press any key to continue . . . |

```