**EXPERIMENT – 37**

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

algorithm.

#include <stdio.h>

#include <stdlib.h>

void simulateFCFS(int requests[], int n, int head) {

int total\_movement = 0;

printf("\nDisk head starts at: %d\n", head);

printf("Request sequence: ");

for (int i = 0; i < n; i++) {

printf("%d ", requests[i]);

total\_movement += abs(requests[i] - head);

head = requests[i];

}

printf("\nTotal head movement: %d cylinders\n", total\_movement);

}

int main() {

int requests[100], n, head;

printf("Enter number of disk requests: ");

scanf("%d", &n);

printf("Enter the disk request sequence:\n");

for (int i = 0; i < n; i++) {

scanf("%d", &requests[i]);

}

printf("Enter initial position of disk head: ");

scanf("%d", &head);

simulateFCFS(requests, n, head);

return 0;

}

SAMPLE INPUT:

Enter number of disk requests: 6

Enter the disk request sequence:

98 183 37 122 14 124

Enter initial position of disk head: 53

SAMPLE OUTPUT:

Disk head starts at: 53

Request sequence: 98 183 37 122 14 124

Total head movement: 640 cylinders