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#include <stdio.h>
#include <stdlib.h>
#include <math.h>

int main() {
    int n, head, i, j, min, pos, seek = 0;
    int request[100], diff[100], visited[100] = {0};

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

    printf("Enter the request sequence: ");
    for (i = 0; i < n; i++)
        scanf("%d", &request[i]);

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

    printf("\nInitial head position: %d\n", head);
    printf("\nOrder of service (SSTF, moving away from spindle):\n");

    int direction = 1; // 1 means moving towards higher track numbers

    for (i = 0; i < n; i++) {
        min = 9999;
        pos = -1;
        for (j = 0; j < n; j++) {
            if (!visited[j]) {
                diff[j] = abs(request[j] - head);
                if (diff[j] < min)
                    min = diff[j], pos = j;
            }
        }
        head = request[pos];
        visited[pos] = 1;
        seek += abs(head - request[pos]);
    }
    printf("Total seek distance: %d\n", seek);
}

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    }

}

// If moving away from spindle, prefer higher track when equidistant
for (j = 0; j < n; j++) {
    if (!visited[j] && abs(request[j] - head) == min) {
        if (direction == 1 && request[j] > head)
            pos = j;
    }
}

visited[pos] = 1;
seek += abs(request[pos] - head);
head = request[pos];
printf("%d ", head);

}

printf("\n\nTotal Seek Time = %d\n", seek);
printf("Average Seek Time = %.2f\n", (float)seek / n);

return 0;
}
```