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

void cscan(int arr[], int size, int head, int total_cylinders) {
    int seek_sequence[size + 2], index = 0, distance, seek_count = 0;

    // Sort the request array
    for (int i = 0; i < size - 1; i++)
        for (int j = 0; j < size - i - 1; j++)
            if (arr[j] > arr[j + 1]) {
                int temp = arr[j]; arr[j] = arr[j + 1]; arr[j + 1] = temp;
            }

    // Service requests in one direction
    for (int i = 0; i < size; i++) {
        if (arr[i] >= head) {
            seek_sequence[index++] = head;
            seek_count += abs(arr[i] - head);
            head = arr[i];
        }
    }

    // Jump to the start
    seek_count += abs(head - total_cylinders);
    head = 0;
    seek_sequence[index++] = head;

    // Service remaining requests
    for (int i = 0; i < size; i++) {
        if (arr[i] < head) {
            seek_sequence[index++] = head;
            seek_count += abs(arr[i] - head);
            head = arr[i];
        }
    }

    printf("Total Seek Time: %d\n", seek_count);
    printf("Seek Sequence: ");
    for (int i = 0; i < index; i++)
        printf("%d ", seek_sequence[i]);
}

int main() {
    int requests[] = { 98, 180, 34, 60, 92, 11, 41, 114 };
    int size = sizeof(requests) / sizeof(requests[0]);
    int head = 50, total_cylinders = 200;
    cscan(requests, size, head, total_cylinders);
    return 0;
}

```

```
Output
Total Seek Time: 150
Seek Sequence: 50 60 92 98 114 0
=== Code Execution Successful ===
```

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Seek Sequence: 50 60 92 98 114 0

=== Code Execution Successful ===
```

main.c		Output
<pre>1 #include <stdio.h> 2 #include <sys/stat.h> 3 4 void print_permissions(mode_t mode) { 5 printf("Owner: %c%c%c\n", 6 (mode & S_IRUSR) ? 'r' : '-', 7 (mode & S_IWUSR) ? 'w' : '-', 8 (mode & S_IXUSR) ? 'x' : '-'); 9 printf("Group: %c%c%c\n", 10 (mode & S_IRGRP) ? 'r' : '-', 11 (mode & S_IWGRP) ? 'w' : '-', 12 (mode & S_IXGRP) ? 'x' : '-'); 13 printf("Others: %c%c%c\n", 14 (mode & S_IROTH) ? 'r' : '-', 15 (mode & S_IWOTH) ? 'w' : '-', 16 (mode & S_IXOTH) ? 'x' : '-'); 17 } 18 19 int main() { 20 struct stat fileStat; 21 stat("example.txt", &fileStat); 22 print_permissions(fileStat.st_mode); 23 return 0; 24 }</pre>	<pre>Owner: --- Group: --- Others: --- === Code Execution Successful ===</pre>	