// C++ implementation of the approach

#include <bits/stdc++.h>

using namespace std;

int size = 8;

int disk\_size = 200;

// Function to perform C-LOOK on the request

// array starting from the given head

void CLOOK(int arr[], int head)

{

int seek\_count = 0;

int distance, cur\_track;

vector<int> left, right;

vector<int> seek\_sequence;

// Tracks on the left of the

// head will be serviced when

// once the head comes back

// to the beginning (left end)

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

if (arr[i] < head)

left.push\_back(arr[i]);

if (arr[i] > head)

right.push\_back(arr[i]);

}

// Sorting left and right vectors

std::sort(left.begin(), left.end());

std::sort(right.begin(), right.end());

// First service the requests

// on the right side of the

// head

for (int i = 0; i < right.size(); i++) {

cur\_track = right[i];

// Appending current track to seek sequence

seek\_sequence.push\_back(cur\_track);

// Calculate absolute distance

distance = abs(cur\_track - head);

// Increase the total count

seek\_count += distance;

// Accessed track is now new head

head = cur\_track;

}

// Once reached the right end

// jump to the last track that

// is needed to be serviced in

// left direction

seek\_count += abs(head - left[0]);

head = left[0];

// Now service the requests again

// which are left

for (int i = 0; i < left.size(); i++) {

cur\_track = left[i];

// Appending current track to seek sequence

seek\_sequence.push\_back(cur\_track);

// Calculate absolute distance

distance = abs(cur\_track - head);

// Increase the total count

seek\_count += distance;

// Accessed track is now the new head

head = cur\_track;

}

cout << "Total number of seek operations = "

<< seek\_count << endl;

cout << "Seek Sequence is" << endl;

for (int i = 0; i < seek\_sequence.size(); i++) {

cout << seek\_sequence[i] << endl;

}

}

// Driver code

int main()

{

// Request array

int arr[size] = { 176, 79, 34, 60,

92, 11, 41, 114 };

int head = 50;

cout << "Initial position of head: " << head << endl;

CLOOK(arr, head);

return 0;

}

Output:

Initial position of head: 50

Total number of seek operations = 321

Seek Sequence is

60

79

92

114

176

11

34

41

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Process exited after 0.05064 seconds with return value 0

Press any key to continue . . .