32. Linear search

#include <stdio.h>

int linearSearch(int arr[], int n, int key) {

// Iterate through the array elements

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

// Check if the current element matches the key

if (arr[i] == key) {

return i; // Return the index of the found element

}

}

// If not found, return -1

return -1;

}

int main() {

int arr[] = {10, 20, 30, 40, 50};

int n = sizeof(arr) / sizeof(arr[0]);

int key = 30;

int index = linearSearch(arr, n, key);

if (index != -1) {

printf("Element found at index %d\n", index);

} else {

printf("Element not found in the array\n");

}

return 0;

}

