Binary Search

#include <stdio.h>

int binarySearch(int arr[], int left, int right, int target) {

while (left <= right) {

int mid = left + (right - left) / 2;

// Check if target is present at mid

if (arr[mid] == target)

return mid;

// If target greater, ignore left half

if (arr[mid] < target)

left = mid + 1;

// If target is smaller, ignore right half

else

right = mid - 1;

}

// If target is not present in array

return -1;

}

int main() {

int arr[] = {2, 3, 4, 10, 40};

int target = 10;

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

int result = binarySearch(arr, 0, n - 1, target);

(result == -1) ? printf("Element is not present in array")

: printf("Element is present at index %d", result);

return 0;

}