// C program to implement iterative Binary Search

#include <stdio.h>

// An iterative binary search function.

int binarySearch(int arr[], int low, int high, int x)

{

while (low <= high) {

int mid = low + (high - low) / 2;

// Check if x is present at mid

if (arr[mid] == x)

return mid;

// If x greater, ignore left half

if (arr[mid] < x)

low = mid + 1;

// If x is smaller, ignore right half

else

high = mid - 1;

}

// If we reach here, then element was not present

return -1;

}

// Driver code

int main(void)

{

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

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

int x = 10;

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

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

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

}