

ISE CERTIFICATION COURSE DETAILS

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COURSE NAME:	Learn basic of data structure and algorithm	DATE:	29-05-2020

SCREENSHOT:

```

1 #include<iostream>
2 using namespace std;
3 int binary(int a[], int l, int r, int x)
4 {
5     while (l <= r) // l, r are indexes not values
6     {
7         // Location of middle element of array
8         int mid = l + (r - l) / 2;
9         // Check if the x is at middle of the array
10        if(a[mid] == x)
11            return mid;
12        //if x is greater, ignore Left half
13        else if(a[mid] < x)
14            l = mid + 1;
15        // if x is smaller, ignore right half
16        else
17            r = mid - 1;
18    }
19    return -1; // if x is not in the array

```

Compilation results...

```

- Errors: 0
- Warnings: 0
- Output Filename: C:\C++\myproject\binarysearch.exe
- Output Size: 1.83295249938965 MiB
- Compilation Time: 9.94s

```

BRIEF REPORT: (POINT-WISE)

- 1) Apply basic algorithmic techniques such as greedy algorithms, binary search, sorting and dynamic programming to solve programming challenges.
- 2) The course covers basic algorithmic techniques and ideas for computational problems arising frequently in practical applications: sorting and searching, divide and conquer, greedy algorithms, dynamic programming.
- 3) We will learn a lot of theory: how to sort data and how it helps for searching; how to break a large problem into pieces and solve them recursively;
- 4) When it makes sense to proceed greedily; how dynamic programming is used in genomic studies. You will practice solving computational problems, designing new algorithms, and implementing solutions.





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