

Certificate in Data Structures and Algorithms



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Data Structure is a way to store and organize data so that it can be used efficiently. Our Data Structure tutorial includes all topics of Data Structure such as Array, Pointer, Structure, Linked List, Stack, Queue, Graph, Searching, Sorting, Programs, etc.

An algorithm is a procedure or formula for solving a problem, based on conducting a sequence of specified actions. A computer program can be viewed as an elaborate algorithm. In mathematics and computer science, an algorithm usually means a small procedure that solves a recurrent problem.

The certification covers basics of algorithm – O-notation and advances to search and sort algorithm and their analysis as applicable for trees and graph data structure.

Note: Please note that the course comes with online e-learning (videos) only. No hard copy will be provided.

Why should one take this certification?

The certification is a proof of your data structures and algorithm for software development and coding. The certification not only boosts the learning of the candidate but also acts as a platform to assess them as well.

The course covers the fundamentals of data structures and algorithms. The certification covers how to implement data structures and algorithms using Python.

The course covers

- Designing a linked list
- Differentiating static and dynamic array
- Constructing a binary tree
- Understanding call stack and tree recursion
- Grasp searching and sorting algorithms

Who will benefit from taking this certification?

The certification is of immense benefit to professionals engaged in software development or coding or IT department especially senior executives and managerial cadre candidates, to increase and demonstrate their skills in data structures and algorithms.

Test Details

- **Duration:** 60 minutes
- No. of questions: 50
- Maximum marks: 50, Passing marks: 25 (50%)

There is no negative marking in this module.

Fee Structure

Rs. 3,499/- (Excludes taxes)*

*Fees may change without prior notice, please refer http://www.vskills.in for updated fees

Table of Contents

- 1. Big O Notation and Space Complexity
- 2. Essential Concepts (Memory and Logarithm)
- 3. Introduction to Data Structure
- 4. Arrays
- 5. Linked Lists
- 6. Stack and Queue
- 7. Hash Tables
- 8. Trees (Binary trees, BST, AVL, Red Black Trees)
- 9. Heaps
- 10. Priority Queues
- 11. <u>Tries</u>
- 12. Graphs
- 13. Recursion
- 14. Searching Algorithms
- 15. Sorting Algorithm
- 16. Tree Traversal Algorithm
- 17. Graph Traversal Algorithms

Certifications

Accounting, Banking & Finance - Certified GSTProfessional

- Certified AML-KYC Compliance Officer
- Certified Business Accountant - Certified BASEL III Professional
- Certified GAAP Accounting Standards Professional
- Certified Treasury Markets Professional

> Big Data

- Certified Hadoop and Mapreduce Professional

Cloud Computing - Certified Cloud Computing Professional

> Design

- Certified Interior Designer

> Digital Media

- Certified Social Media Marketing Professional
- Certified Inbound Marketing Professional
- Certified Digital Marketing Professional

▶ Foreign Trade

- Certified Export Import (Foreign Trade) Professional

>Health, Nutrition and Well Being - Certified Fitness Instructor

>Hospitality

- Certified Restaurant Team Member (Hospitality)

>Human Resources

- Certified HR Compensation Manager
- Certified HR Staffing Manager
- Certified Human Resources Manager
- Certified Performance Appraisal Manager

> Office Skills

- Certified Data Entry Operator
- Certified Office Administrator

Project Management

- Certified Master in Project Management
- Certified Scrum Specialist

> Real Estate

- Certified Real Estate Consultant

Marketing Certified Marketing Manager

>Quality

- Certified Six Sigma Green Belt Professional
- Certified Six Sigma Black Belt Professional
- Certified TQM Professional

>Logistics & Supply Chain Management

- Certified International Logistics Professional
- Certified Logistics & SCM Professional
- Certified Supply Chain Management Professional

>Legal

- Certified IPR & Legal Manager
- Certified Labour Law Analyst
- Certified Business Law Analyst
- Certified Corporate Law Analyst

>Information Technology

- Certified Angular JS Professional
- Certified Basic Network Support Professional
- Certified Business Intelligence Professional
- Certified Core Java Developer
- Certified E-commerce Professional
- Certified IT Support Professional Certified PHP Professional
- Certified Selenium Professional

Mobile Application Development

- Certified Android Apps Developer
- Certified iPhone Apps Developer

> Security

- Certified Ethical Hacking and Security Professional
- Certified Network Security Professional

>Management

- Certified Corporate Governance Professional
- Certified Corporate Social Responsibility Professional
- Certified Leadership Skills Professional

>Life Skills

- Certified Business Communication Specialist
- Certified Public Relations Officer

> Media

- Certified Advertising Manager
- Certified Advertising Sales Professional

> Sales, BPO

- Certified Sales Manager
- Certified Telesales Executive

& many more job related certifications

Contact us at: V-Skills 011-473 44 723 or info@vskills.in www.vskills.in