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Learning Style: On Demand

Provider: Microsoft

Difficulty: Intermediate

Course Duration: 12 Hours

Algorithms and Data Structures in C#



About this Course:

This intermediate-level course is specifically designed for Programmers and Web Developers striving to learn the core concepts of Algorithms & functionalities of Data Structures. Professional developers direly need to learn the ability to store information and work with databases while designing applications and programming

codes. This course helps professionals nurture the skills of applying data structures to store programming and code information such as values list & other variables. On average, a Programmer having C# Database Skills earns \$119,500 annually.

This course covers both the basic and advanced data structures and also sheds light on the application of “Typing”. In addition to this, professionals will also build familiarity with the key concepts of Generics and learn how its application simplifies the object representation in data structures. This course also helps programmers interpret the logic of Sorting and Searching Algorithms and focuses on the implementation of distinct new algorithms.

Course Objectives:

The core objective of this course is to help professionals develop a better understanding and sound knowledge of the following key concepts:

- Simple and Complex C# Programming Data Structures
- Fundamentals of Algorithms and Algorithm Analysis
- Implementation of Multiple Data Structures in C# Programming
- C# Programming Searching and Sorting Algorithms Implementation
- Getting to Know Arrays, Enumerations, and Struct
- C# Programming Language Specialized and Standard Collection
- Generic Collections and Applications & Development of Generics

Audience:

This course is specifically tailored for the following group of professionals and interested candidates:

- Web Designers and App Developers
- Professional C# Programmers
- IT Professionals & Web Developers

Prerequisites:

Professionals planning to enroll in the Algorithms and Data Structures in C# course must comply with the following prerequisites:

- Fundamental Knowledge and Understanding of C# Programming Language
- Basic Understanding of Object-Oriented Programming in C#

Course Outline:

Algorithms

- Algorithm Basics
- Sorting Algorithms
- Searching Algorithms
- Algorithm Analysis

- Labs
- Module Discussion

C# Data Structures

- Introducing Data Structures
- Arrays
- Enumerations
- Structs
- Other Data Structures
- Labs
- Module Discussion

C# Standard Collections

- Standard Collections
- Specialized Collections
- Labs
- Study Resources
- Module Discussion

Generics and Generics Collections

- Introducing Generics
- Creating and Using Generics
- Labs
- Study Resources
- Module Discussion?

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