

Data Access in C# and .NET Core

Modality: Self-Paced Learning

Duration: 12 Hours

About this course:

This course shows the utilization of Microsoft information to get to advancements using C# and .Net Core. Understudies will get the hang of everything they have to know to build up an information layer for their applications. This course gives instruction in both video and text in order to give the understudy important learning openings.

Labs will assist understudies with adding to an existing database and work out pieces of a practical information layer. True models will be utilized to keep the instruction pertinent for the understudies.

The normal compensation for a Programmer with the aptitudes of C# is \$118,500 every year.

Course Objective:

- Introduction to Entity Framework
- Scaffold entity objects from an existing database
- Lambda basics
- Migrations
- Performance optimizations
- Creating Asynchronous Methods
- Types of Data Relationships
- Querying All Types of Relationships
- Lazy and Eager Loading
- Basic data operations
- Introduction to Object Relational Model (ORM)
- LINQ basics
- Performance optimizations
- Updating disconnected entities
- Executing
- Seeding the Database
- Eager and lazy loading
- Transactions
- How to query data
- Seeding databases
- Entities relationships

Audience:

Developer

Programmer

Prerequisite:

Fundamentals of the C# Programming Language

Object-Oriented Programming

Suggested prerequisite course:

Programming in C# (MS-20483)

Course Outline:

Introduction Entity Framework

- Introduction ORM
- Introduction Entity Framework
- Importing schema from an existing database
- Code First Approach
- Basic data operations
- Lab 00-Setting up your environment
- Lab 01-Create the initial project
- Lab 02-Scaffold entity objects from an existing database
- Lab 03-Basic data operations
- Self Assessment Lab
- Module Test

Querying Data

- Sorting and Paging
- LINQ and Lambda Expressions
- Migrations
- Keys
- Indexes
- Lab 01-Sorting and Paging
- Lab 02-LINQ and Lambda expressions
- Lab 03-Migrations
- Lab 04-Indexes and Composite Keys
- Self Assessment Lab
- Module Test

Related Entities

- Types of Data Relationships
- Querying All Types of Relationships
- Lazy and Eager Loading
- Lab 01-Related Entities Basics
- Lab 02-Related Entities – Advanced Concepts
- Lab 03-Explicitly Loading Related Data

- Self Assessment Lab
- Module Test

Advanced Topics

- Transactions
- Performance optimizations
- Updating disconnected entities
- Executing
- Seeding the Database
- Lab 01-Transactions
- Lab 02-Performance Optimizations
- Lab 03-Updating Disconnected Entities
- Lab 04-Executing Raw SQL Statements and Sred Procedures
- Lab 05-Seeding the Database
- Self Assessment Lab
- Module Test

Final Assessment

- Course Final Exam