

Mastering Entity Framework Core

Module 1(Introduction of ORM and EntityFramework)

- What is ORM(Object Relational Mapper)
- Entity Framework Introduction
- Tools required to develop application
- Create Project
- Nuget Packages and Console Application

Module 2(Getting started with Data Models)

- What are Data Models
- Creating Data Models with EF core
- Understanding of Database Context
- Adding Database Context
- EF core and Database support
- Usage of multiple connection strings

Module 3(Using Data Annotation)

- What is data annotation
- Update entity and it's properties
- Max length and Not Mapped
- EF core power tool

Module 4(Database Migration)

- Setup Console Application
- Adding Migration
- Understanding of DB first and code first approaches
- Reverse engineering with existing database
- Seeding Data

Module 5(Querying Data from Database using EF Core)

- LINQ overview
- LINQ to query data
- Add filters to Queries
- Additional filtering features
- Group by and order by query

Module 6(Manipulate Data using EF Core)

- Understanding tracking and saving changes
- CRUD operations
- Understand ExecuteUpdate and ExecuteDelete

Module 7(Handling database)

- Adding more entities
- Updating database using migrations

- Generating migration script
- Rolling back migration

Module 8(Relationships using EF core)

- Overview of relationships
- One to one relationship
- One to many relationship
- Many to many relationship
- View diagram in EF core
- Updating database with relationships

Module 9(Fluent Api)

- Introduction of Fluent Api
- Table and column name in Fluent Api
- Primary Key and Required using Fluent Api
- Not Mapped and length using Fluent Api

Module 10(Querying data in relationship using EF core)

- Inserting related data
- Understanding loading methods
- Eager Loading
- Explicit Loading
- Lazy Loading
- Understanding delete behaviours

Module 11(Working with Rawsql, Views, stored procedure using EF core)

- Adding NonTable objects with migration
- Keyless Entities
- Querying data with RawSql
- Query Scalar
- Executing User Defined Function
- Limitation of Raw querying and EF core

Module 12(Windows application with EF Core)

- How windows process works with EF core
- Create Windows application
- Using EF core in Windows application
- Creating Models
- Using Database context
- Scaffolding code with Visual Studio
- Perform CRUD operations

Module 13(ASP.net core MVC with EF Core)

- How Asp.net core MVC works with EF core
- Create ASP.net core MVC application
- Connect to Database context

- Adding Models
- Adding Filters
- Adding Controllers
- Getting data on Views

Module 14(ASP.net core Api with EF core)

- How Asp.net core api works with EF core
- Difference between ASP.net core MVC and Asp.net core Api
- Create ASP.net core Api application
- Adding Models
- Adding Filters
- Connect to Database context
- Accessing Service

Module 15(Consume Data Service using Applications)

- Consume service using server side language
- Understanding of CORS issue
- Consume service using client side language

Module 16(Persist and retrieve relational data by using Entity Framework Core)

- Introduction
- Exercise - Set up a migration
- Exercise - Interact with data
- Exercise - Run the app
- Exercise - Reverse-engineer from an existing database