

# Entity Framework 6.1, Part 4 of 6: ORM and Entities

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**Meet the expert:** Don Kiely is a featured instructor on many of our SQL Server and Visual Studio courses. He is a nationally recognized author, instructor, and consultant specializing in Microsoft technologies. Don has many years of teaching experience, is the author or co-author of several programming books, and has spoken at many industry conferences and user groups. In addition, Don is a consultant for a variety of companies that develop distributed applications for public and private organizations.

**Prerequisites:** This course assumes that you are experienced with relational database design and programming concepts. Entity Framework is all about data access, and the course doesn't spend any time on data fundamentals. You'll also need a good understanding of object-oriented programming in C#, so that you know how to use the entity data objects that Entity Framework generates from your data model. You'll also need to have a working knowledge of Language INtegrated Queries (LINQ) in C#.

The course uses Entity Framework with various SQL Server databases, so you should know enough about SQL Server to know how to perform various tasks and be able to connect to a database. But you don't need deep knowledge of SQL Server to use Entity Framework productively. You should have already viewed the Entity Framework 6.1: Querying and Updating Data course before taking this course.

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**Course description:** We'll start the course with a look at how you can customize an entity data model to make it easier for application developers to use its entity objects. The model designer in Visual Studio has plenty of options for refining a model, as well as make it easier to work with large, complex models with hundreds of entities. To finish up you'll also learn some best practices of model design, so that you can build robust applications that take full advantage of the right Entity Framework infrastructure.

## Course outline:

### Unleash the Power of ORM

- Introduction
- The Power of ORM
- Demo: New Class Library Project
- Demo: Entity Data Model Wizard
- Demo: The Entity Data Model
- Summary

- Entity Properties
- Demo: Scalar Properties
- Demo: Scalar (cont.)
- Demo: "Application" Names
- Summary

### Navigation Properties

- Introduction
- Demo: Navigation Properties
- Demo: Multiple Relationships
- Demo: Self Joins
- Summary

### The Model and Default Values

- Introduction
- Demo: Organize the Data Model
- Demo: Menus
- Demo: Menus (cont.)
- Creating Sub Diagrams
- Demo: Sub Diagrams
- Demo: Sub Diagrams (cont.)
- Demo: Colors
- Default Values
- Demo: Default Values
- Demo: Default Values (cont.)
- Summary

### Cleaning up the Model

- Introduction
- Cleaning Up the Model
- Entities
- Demo: Cleaning Up - Entities
- Demo: Clean Up - View Entities