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# ORM

Object relational mapper. It is a technique that lets you query and manipulate data from database using an object-oriented-programing paradigm.

# Entity Framework Core 6.x

It is the new version of entity framework. It helps us to bring models from database and vice versa.

# Course Link

<https://dotnetmastery.com/Home/Details?courseId=11>

<https://github.com/bhrugen/CodingWiki_EF>

# Nuget Packages

## In Data Access

Microsoft.EntityFrameworkCore.SqlServer, this one include Microsoft.EntityFrameworkCore (the main one)

Microsoft.EntityFrameworkCore.Tools, this include Microsoft.EntityFrameworkCore.Desing

## In Web tier

Microsoft.EntityFrameworkCore.Desing

# Make Migrations

Make sure of **start project** and **default project.**

1. Set dataAccess start project
2. Command “**add-migration**” + a tag name example “CreatingBookTable”
3. Command “**Update-Database**” to create all object in the migration

## Primary Key Set

1. If the table only has one integer property with name ID
2. with [Key]
3. If the table only has one integer property THAT ENDS IN ID

## Required properties

If we do not put a property nullable It will assume that property as required

## Snapshot File

It has information about all migrations made.

# Remove Migration or Update existing Table.

It is recommend for non-updated migrations “**remove-migration**”

## Remove a table

Remove the dataset from dbcontext

## Roll back to old migration

Using “Update-Database” + the migration .cs file without date part of the name.

example “**Update-Database creatingBookTable**”

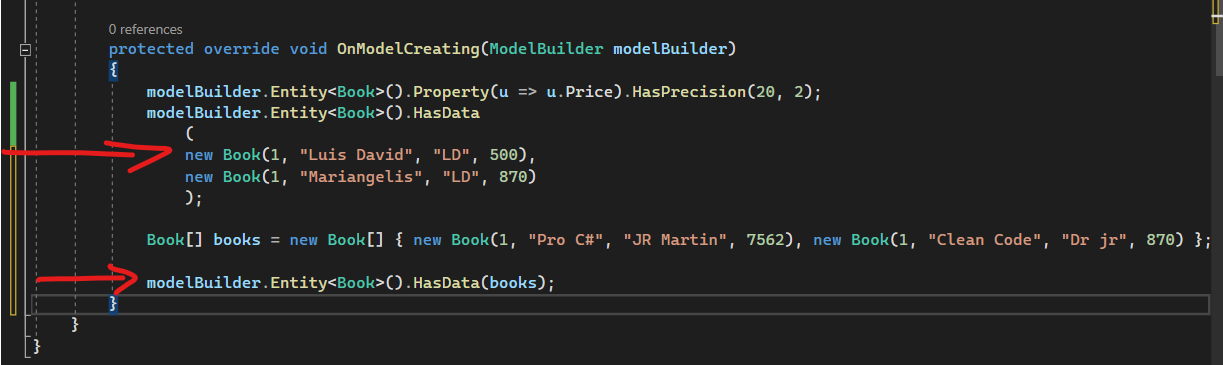
Then Just type “**Update-Database**” to applicate all migrations to database

# More Commands

1. **Get-migration** show up all migrations in console
2. **Drop-database** drop the database that is in connection string

# Seed Data

Create data and attach it to .HasData(), then add-migration

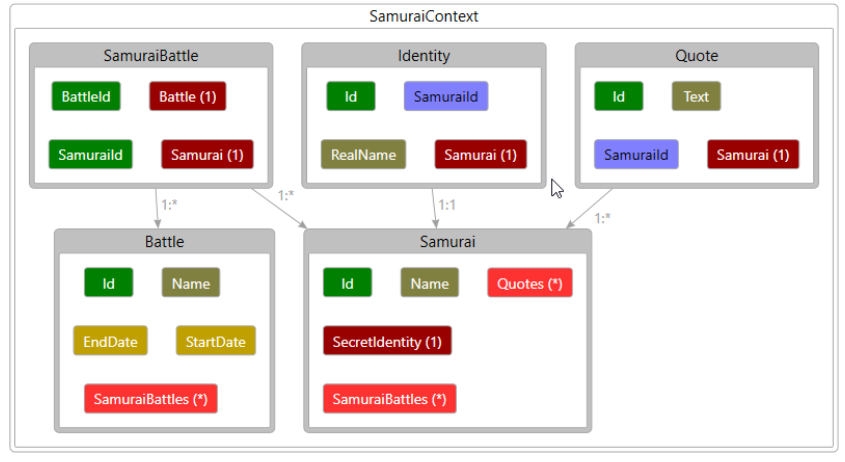


# Data annotations

1. Table name **[Table(“tb\_Category”)]**
2. Column name **[Column(“tb\_Category”)]**
3. **[Required]** put some column required.
4. **[Key]** put primary key.
5. **[MaxLength(50)]** varchar(50)
6. **[NotMapped]** It property is not added as new column
7. **[ForeignKey(“PropertyName from base foreign key table”)]**

# EF Core Power Tools

To create Table diagram in visual studio

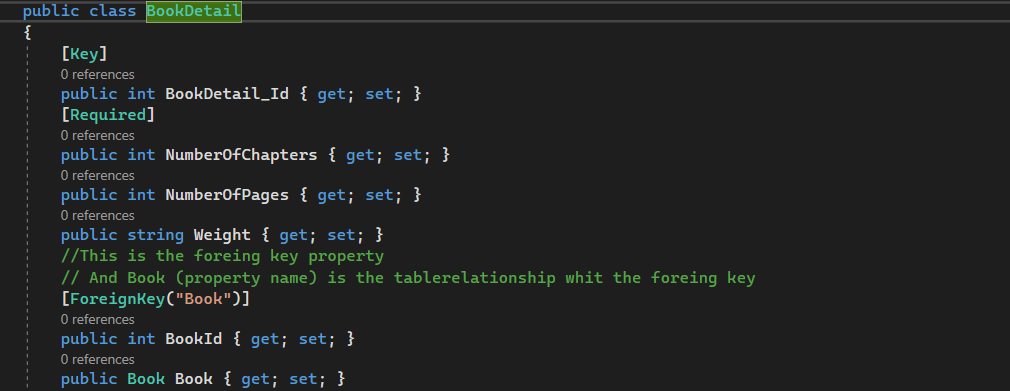


# Relations in EF Core

## One to One

Example BookDetail has a foreign key to Book.

1. Create a [ForeignKey(“Book”)] Book is the property name from the base table
2. Create property foreign key
3. Create property table base of foreign key
4. Create BookDetail property in Book



A screen shot of a computer

Description automatically generated

## One To Many