Entity Framework – Code First Approach – Part 5

In this tutorial we'll learn Code First approach (but this time database doesn't exist already). We'll create our conceptual model (classes) first and then we'll create database from it using EF.

This tutorial is prepared with Visual Studio 2013 + SQL Server.

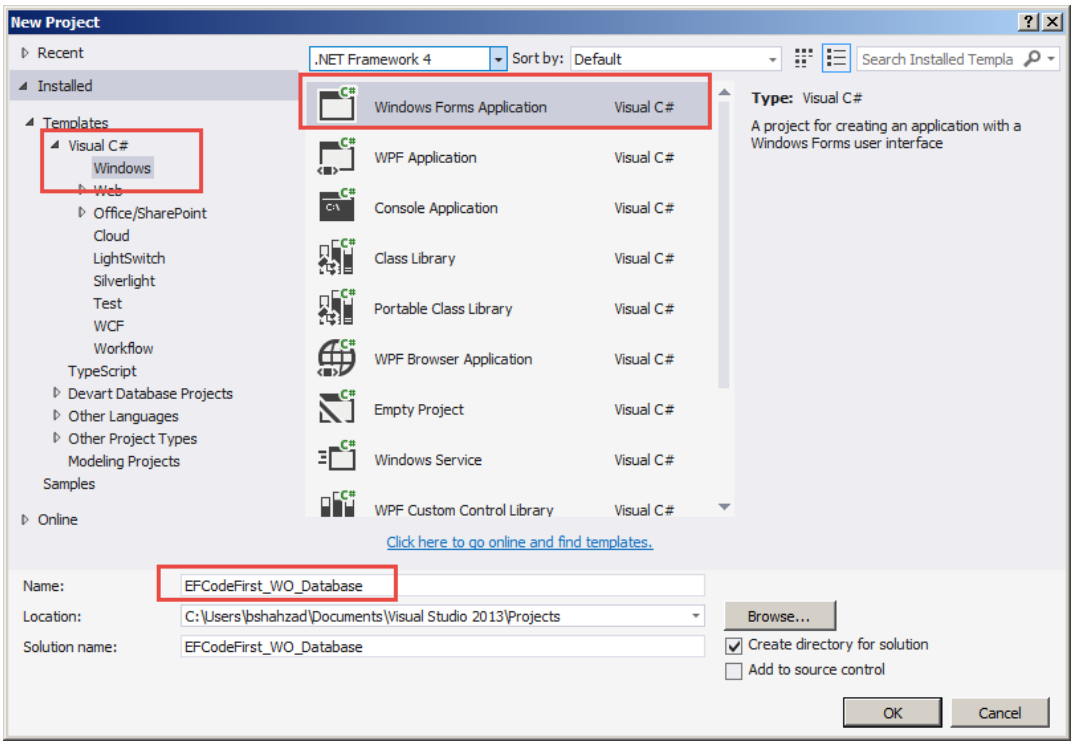
Version	Last updated	Comments	Modified By
V1.0	02-05-2016		Bilal Shahzad

Introduction

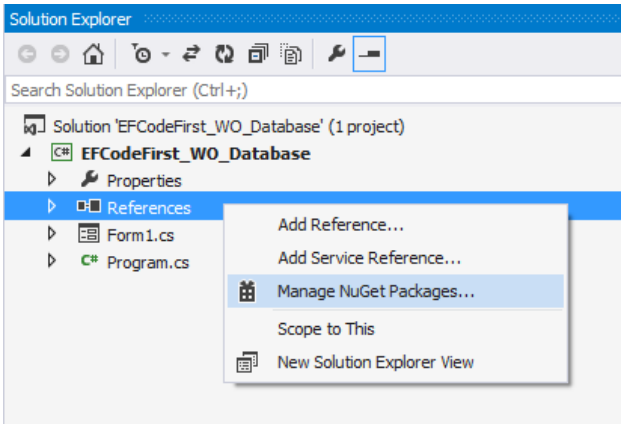
1- Here are quick steps to complete this exercise (all steps are same as are in Part 1, only last step is different)
   a. Create a new Windows Application.
   b. Adding reference of "Entity Framework" reference using "NuGet".
   c. Creating our Entities (e.g. DTOs)
   d. Creating our Context class and DbSet inside context class.
   e. Creating Connection String in configuration file (app.config or web.config)
   f. Call "ctx.Database.CreateIfNotExists();" method in your code where you want to create database.

Step by Step Walkthrough

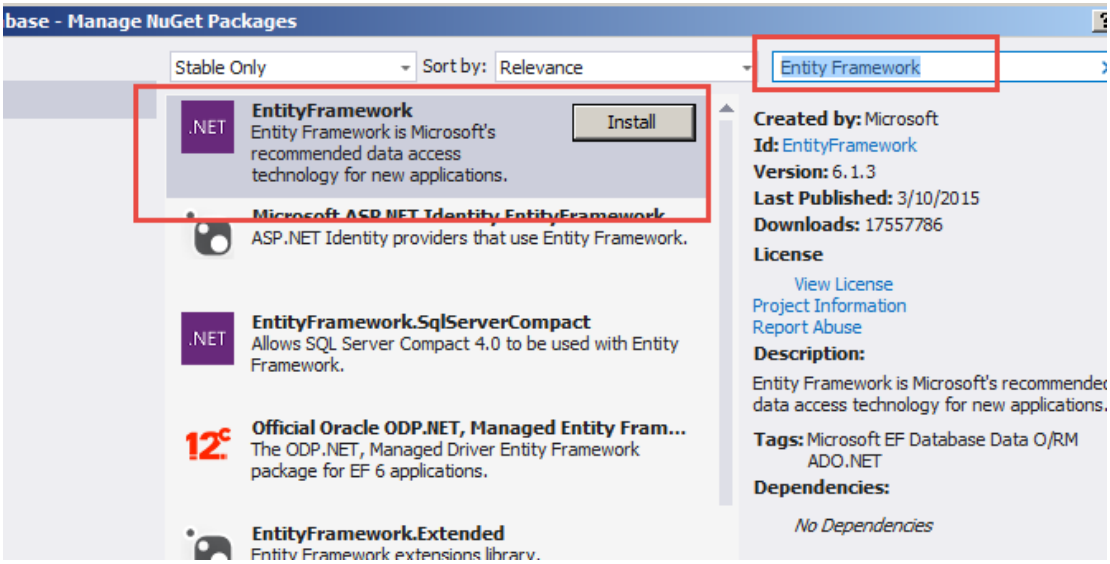
1- Create a New Windows Application in Visual Studio



2- Right click on "References" and select "Manage NuGet Packages"

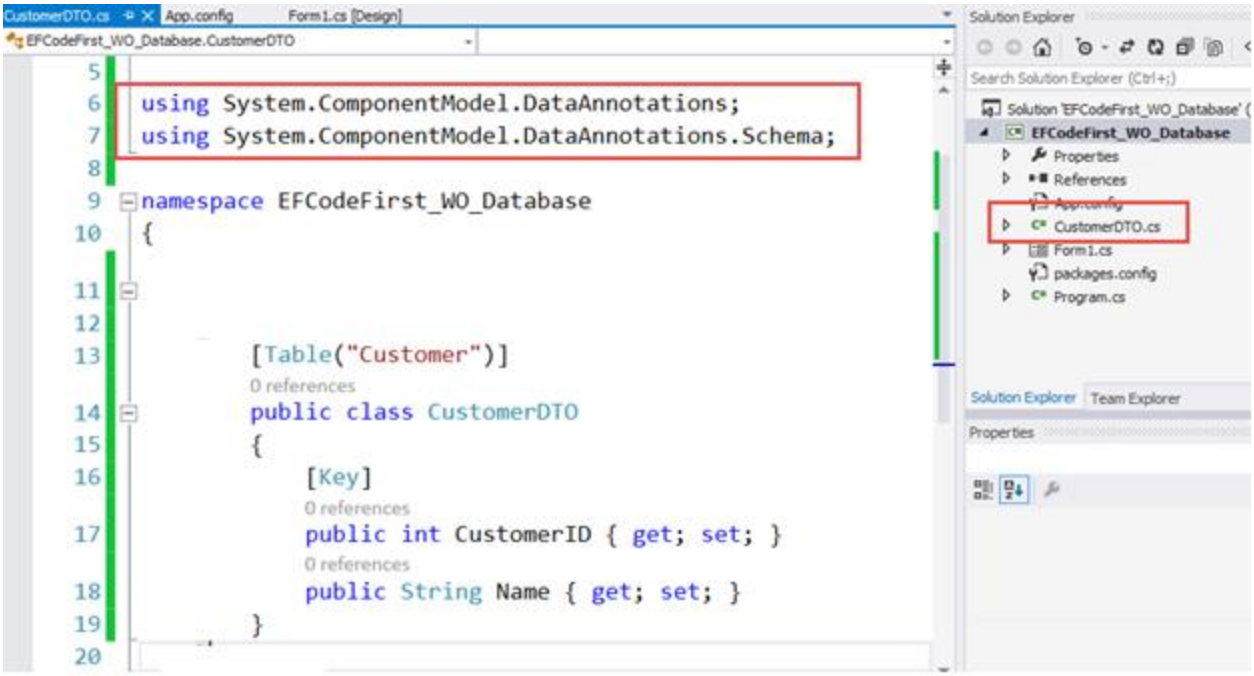


3- Find “Entity Framework” and “Install” it.

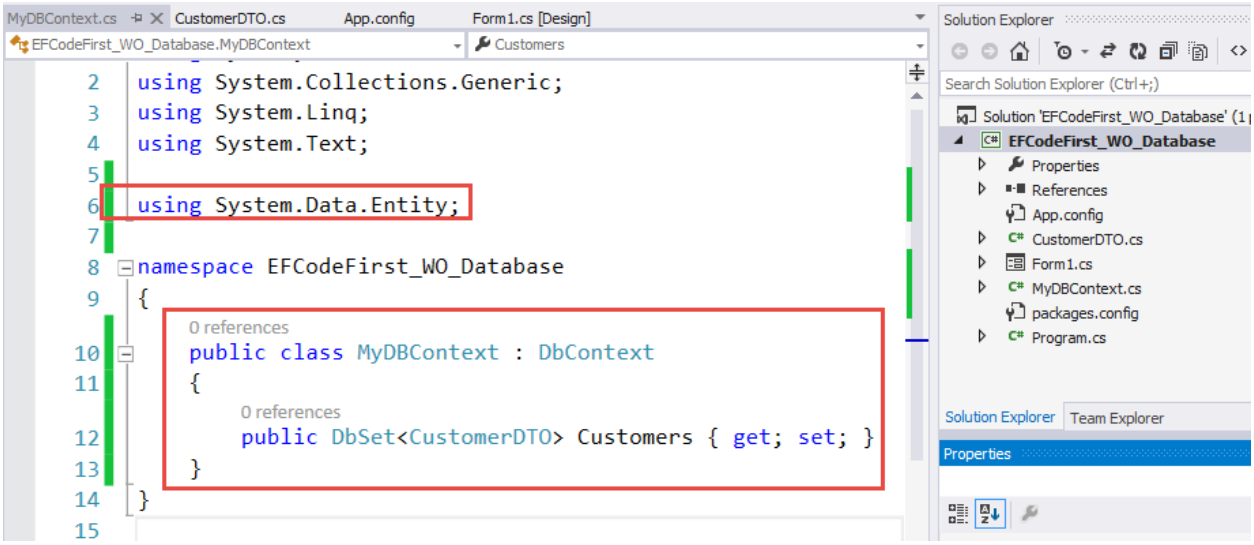


4- Add your connection string in “app.config” file. Note: Here we don’t have any database of “MyTestDB” yet but we want to create this database.

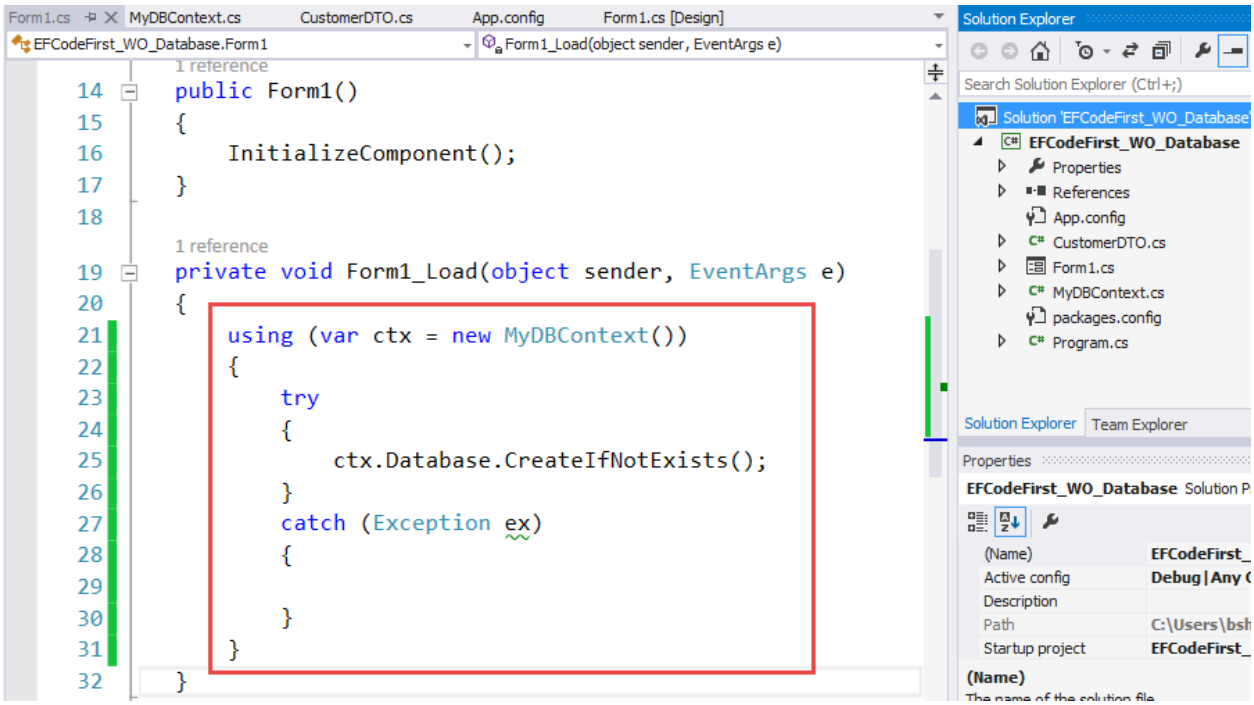
5- Now add a class for your entity (or entities). Here we've created a CustomerDTO class which is going to be mapped with "dbo.Customer" table (dbo is default schema if not mentioned).



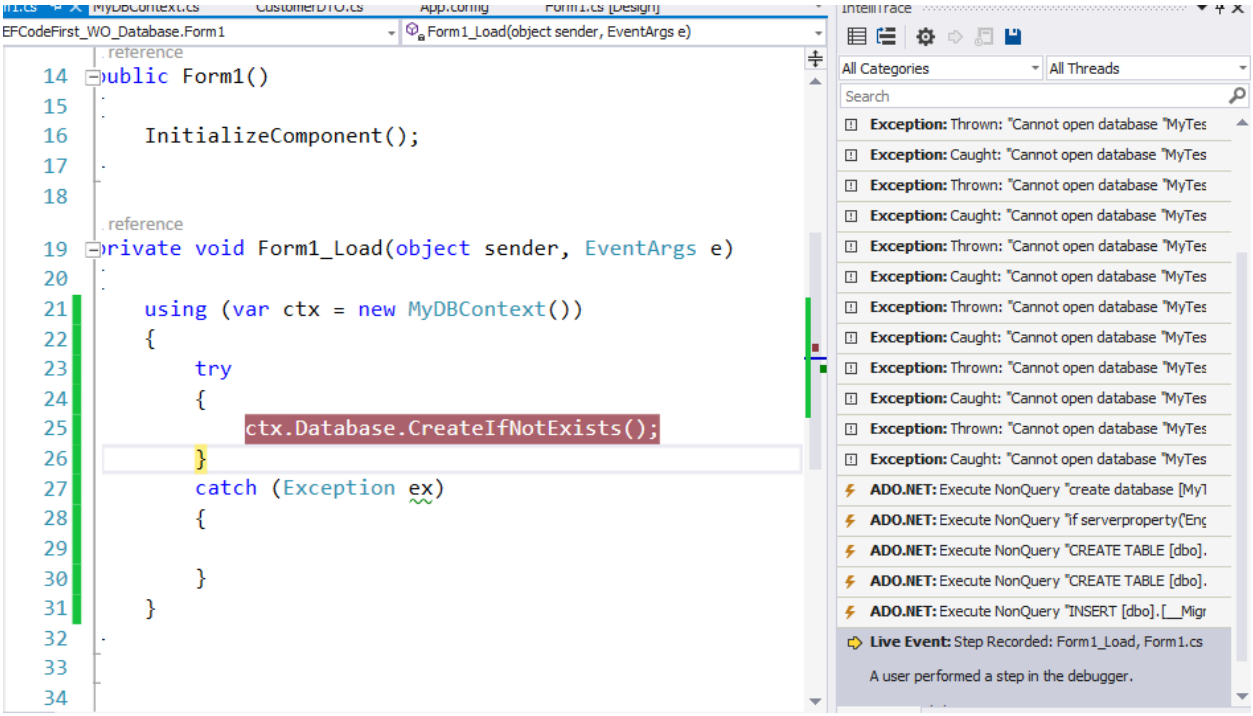
6- Now add a class "MyDBContext" as shown below.



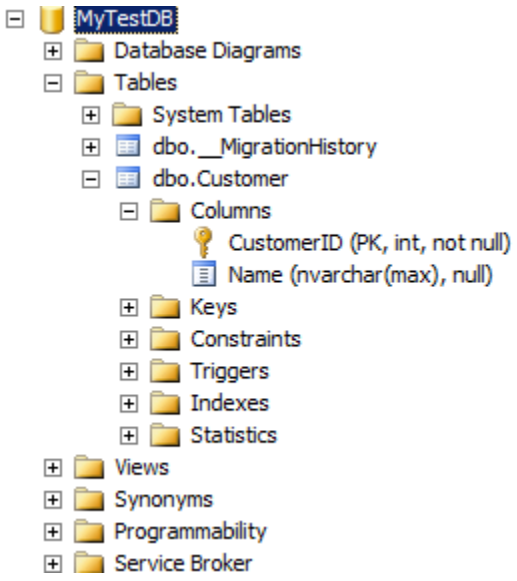
7- Now uou can write this code in constructor of your context class, on click event handler of some specific button. Here we've added this code (for learning purposes) at form load event. We are creating object of our context class and then call "**ctx.Database.CreateIfNotExists();**" method. It will check if database (& related DB objects) exist in server or not. If they don't exist, they will be created.



8- Run your project and see if above code is executed successfully. If it throws any exception, verify all steps again. Here you can see on right side the events happening in this call.



9- If you check on your database server, you will see that database + tables are created. One extra table "__MigrationHistory" is also created which maintains the "MigrationHistory" information.



10- Now what you've learnt in EF tutorials (e.g. LINQ to entities, Data Annotations) is same for remaining activities.