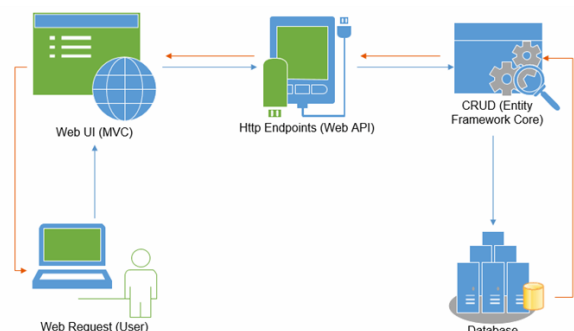# [What is Entity Framework in NET Framework?](#)

When you save all the changes in your ORM to the database, the ORM will automatically generate insert/update/delete statements, based on what you did with the objects. In this scenario, the same context class is used to retrieve and save entities. It keeps track of all databases during the whole lifecycle. EF Core supports two development approaches 1) Code-First 2) Database-First. EF Core mainly targets the code-first approach and provides little support for the database-first approach because the visual designer or wizard for DB model is not supported as of EF Core.

If you're working on an existing project that already using EF6 or one that is linked to the .NET Framework, it's still a good option to use EF 6. However, if you are developing new projects, particularly projects targeting .NET Core or .NET 5/6+, EF Core is the best choice. EF Core's flexibility, performance improvements, and cross-platform capabilities make it the perfect selection for modern application development. The Entity Framework Core is an updated and enhanced version of the Entity Framework designed for .NET Core applications. While the EF Core is relatively new and not as fully developed as the EF 6, it still supports its predecessor's features and concepts.

Entity Framework Core

The implementation is very simple as like a LINQ statement. For any WRITE operation with DB, SaveChanges() shall be called. This is optional if you can create seed data via SSMS(SQL Server Management Studio). The latter is used to develop applications of any kind, the former makes it easy to build data-oriented applications. Entity Framework Core uses a provider model to access many different databases.
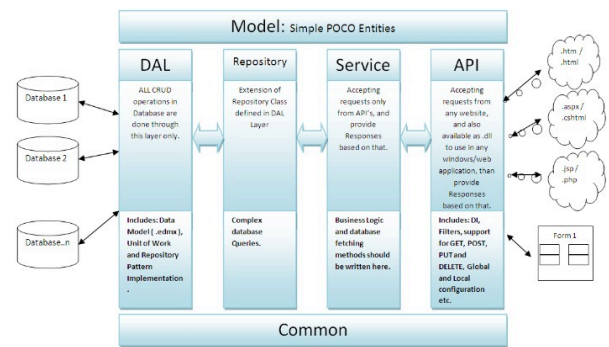

Let us understand why we need to use the ORM Framework with an example. Suppose we want to develop an application to manage the students of a college. To do this, we may need to create classes such as Student, Department, Address, etc.

Native SQL

It supports many operations like update, create, and delete that are generated by the entity data model. Now your object directly works with the database to retrieve or make changes. Again, when we want to read the data from the database into our application, we also have to write some custom code to map the data to our model classes like Student, Department, Address, etc. This is a very common task as a developer for us that we do almost in every application. The above diagram shows that the Entity Framework fits between the Data Layer and the database. It saves the data in the

database which are stored in the properties of the business entities (domain classes) and also retrieves the data from the database and converts it to business entities objects automatically.

The C# Entity Framework is a set of ADO.NET technologies that aid in developing data-driven software. C# Entity framework is an Object Relational Mapping (ORM) framework that gives developers an automated way to store and access databases. The Entity Framework entity framework meaning allows developers to work with data at a higher level of abstraction. Entity Framework allows you to develop and maintain data-oriented apps with less code than traditional applications. The C# Entity framework will be explained in this article.

Part C – API Testing with POSTMAN Tool

EF Core includes providers as NuGet packages which you need to install. The following figure illustrates the supported application types, .NET Frameworks and OSs. Entity Framework is an Object/Relational Mapping (O/RM) framework. It is an enhancement to ADO.NET that gives developers an automated mechanism for accessing & storing the data in the database. Run the application and notice that Departments and Employees data are displayed as expected as shown in the below image. We have achieved all this without writing a single line of ADO.NET code.

A refresh of version 4.1, named Entity Framework 4.1 Update 1, was released on July 25, 2011. Entity Framework Core is the new version of Entity Framework after EF 6.x. It is open-source, lightweight, extensible and a cross-platform version of Entity Framework data access technology.

Types of Entities in Entity Framework

Then paste the following code in the Index,cshtml file. Here I am going to use Entity Framework 6.x, so I am selecting the Entity Framework 6.x radio button and click on the Next button as shown in the below image. Let us understand how to use Entity Framework in ASP.NET MVC Application step by step. Although they're different things entirely they are compatible.

And then we create DataSet or DataTables to store the data in memory to perform different types of Operations on the Data as per the business requirements. Actually, this is a Time-Consuming, and Error-Prone Process. It is an entity class that does not depend on any framework-specific base class. It is the normal .NET CLR class that's why it is named "Plain Old CLR Objects".

EF Core Database Providers

Once you click on the Next button, It will open choose your data connection wizard as shown below. From this window click on the New Connection button as shown in the below image. Learn Entity Framework using simple yet practical examples on EntityFrameworkTutorial.net for free. Learn Entity Framework DB-First, Code-First and EF Core step by step.

Here, I am naming the connection string as EmployeeDBContext and then click on the Next button as shown in the below image. Provide the necessary details to communicate with the database such as Server name, select the Authentication Type, select the Database and click on the Ok button as shown below. This Entity Framework Course is designed for Students, Beginners, Intermediates, and Professionals Developers who want to learn Entity Frameworks step by step, from the basics to the advanced concepts.

Change the Model Namespace to "EmployeeModel" and click on the "Finish" button as shown in the below image. Once you click on the OK button, you will be back on to the "Choose Your Data Connection" window as shown below. Once you click on the Add button, it will open the Choose Data Model wizard as shown below.

• From the below window, select the "Departments" and "Employees" tables.
• It eliminates the need for most of the data-access code which is used to interact with the

database that developers usually need to write.

- E-SQL queries are converted to datastore-specific query languages like T-SQL via the Entity Framework (Transact SQL).
- Entity Framework Core is the new and improved version of Entity Framework for .NET Core applications.
- We can avoid all these ADO.NET Related things if we use Entity Framework.