

Step 1 - Terminal

```
dotnet tool install --global dotnet-ef
```

You will only ever need to run this once as it is a global install not project specific

```
dotnet new mvc --no-https -o Projec tDi rec tor yN ame
```

Creates new dotnet MVC Project for development

Step 2 - Terminal (Inside Project Directory)

```
dotnet add package Pomelo.En tit yFr ame wor kCo re.M ySql --version 3.1.1
```

Entity Framework Core provider for MySQL DB's

```
dotnet add package Micros oft.En tit yFr ame wor kCo re.D esign --versi on 3.1.5
```

EF Core tools for DB creation/migration

These two commands must be run in your project folder every time you set up a new MVC project!

Step 3 - appsettings.json && Startup.cs

```
" DBI nfo ":
{
  " Nam e": " MyS QLc onn ect ",
  " Con nec tio nSt rin g": " ser ver =lo cal hos t;u ser id= roo t;p ass wor d=r oot ;po rt= 330 6;d
=SchemaName;SslMode=None"
}

using Micros oft.En tit yFr ame wor kCore;

servic es.A dd DbC ont ext <My Con tex t>( options => option s.U seMySql (Confi gur ati on[ " DBI nfo :Co nr
S tri ng"]));

servic es.A dd Ses sion();

app.U s eSe ssi on();
```



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Step 4 - Context File

```
using Microsoft.EntityFrameworkCore;
namespace ProjDi rNameModels
{
    public class DBCont ext Cla ssNameDbContext
    {
        DBCont ext Cla ssNameDbContext (options) : base(options) { }
        public ModelName> TableName { get; set; }
        Add more tables here
    }
}
```

Sample code for context model file

Step 5 - Model Example

```
using System;
using System.ComponentModel.DataAnnotations;
namespace ProjDi rNameModels
{
    public class ModelName
    {
        [Key]
        public ModelNameId { get; set; }
        Set all properties here
        public DateTime CreatedAt { get; set; } = DateTime.Now;
        public DateTime UpdatedAt { get; set; } = DateTime.Now;
        Set Navigation Properties
    }
}
```

Class model for database table



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Step 6 - Context Dependency Injection

```
using System;
using System.Collections.Generic;
using System.Linq;
using Microsoft.EntityFrameworkCore;
using ProjDi rNameModels;

public HomeController(Context tCl assName context)
{
    _context = context;

    [HttpGet( " ")]
    public IActionResult Index()
    {
        ModelName> tVariableName= _context. TableName.ToList();

        return View();
    }
}
```

Sample of the code required to make DB Context available in controllers

Step 7 - Terminal - Migration

dotnet ef migrations add MigrationName	Creates a migration in preparation for Creating/Updating your DB Schema
dotnet ef database update	Updates Database schema with most recent migration

This step to be done after all previous steps are complete and, preferably, after all models and relationships are in place.



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