

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 ProjectDirectoryName
```

Creates new dotnet MVC Project for development

Step 2 - Terminal (Inside Project Directory)

```
dotnet add package Pomelo.EntityFrameworkCore.MySql --version 3.1.1
```

Entity Framework Core provider for MySQL DB's

```
dotnet add package Microsoft.EntityFrameworkCore --version 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

```
"DBInfo": {
  "Name": "MySQLConnection",
  "ConnectionString": "server=localhost;userid=root;password=root;port=3306;database=SchemaName;SslMode=None"
}
```

```
using Microsoft.EntityFrameworkCore;
```

```
services.AddDbContext<MyContext>(options => options.UseMySQL(Configuration["DBInfo:ConnectionString"]));
```

```
services.AddSession();
```

```
app.UseSession();
```



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 ProjDirectoryModels;
public HomeController(Context class name context)
{
    _context = context;
}

[HttpGet("")]
public IActionResult Index()
{
    modelName > variableName = _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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