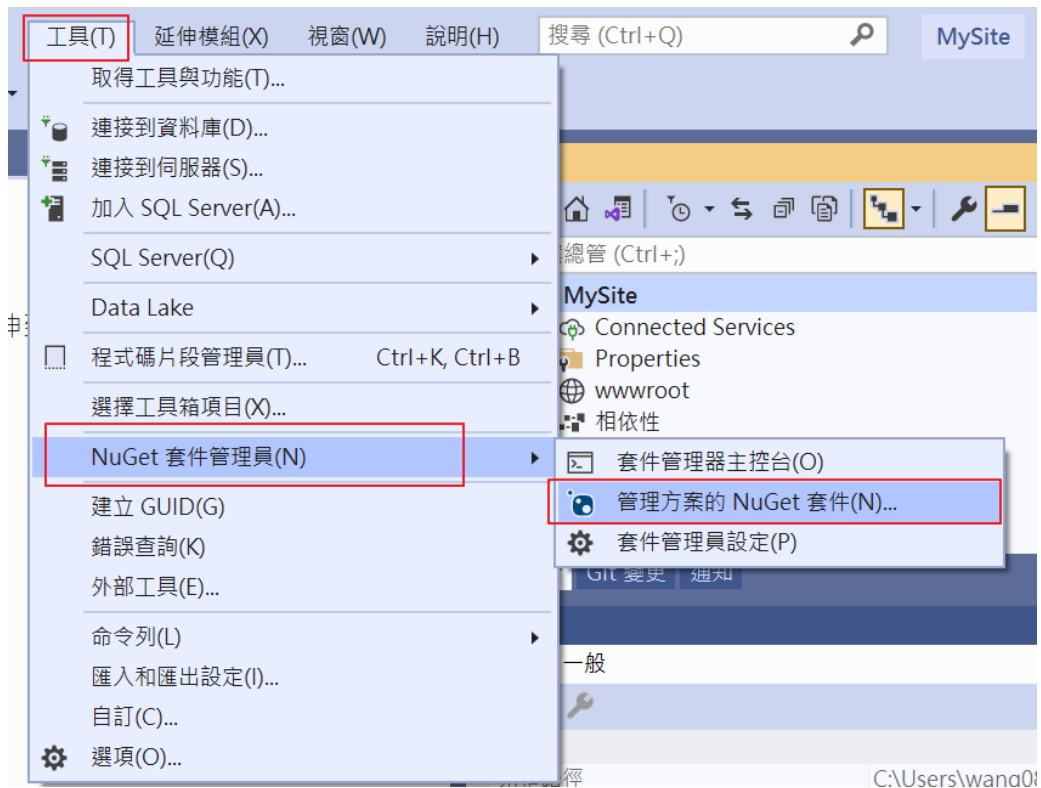


ASP.NET MVC Core6 的 Entity Framework 使用方式

1. 透過 NuGet 安裝下列套件

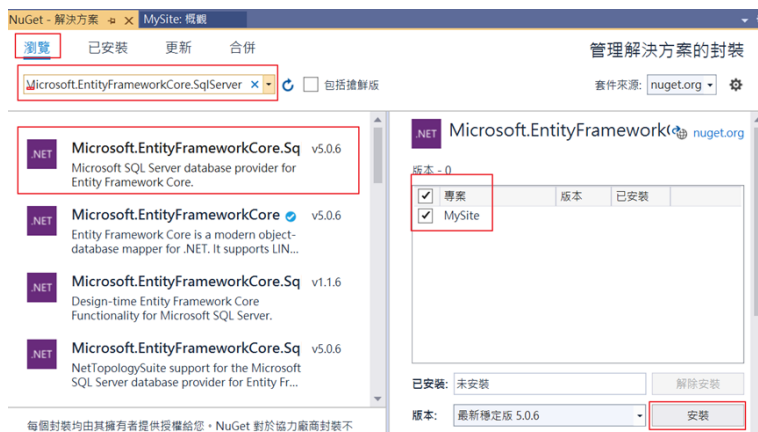
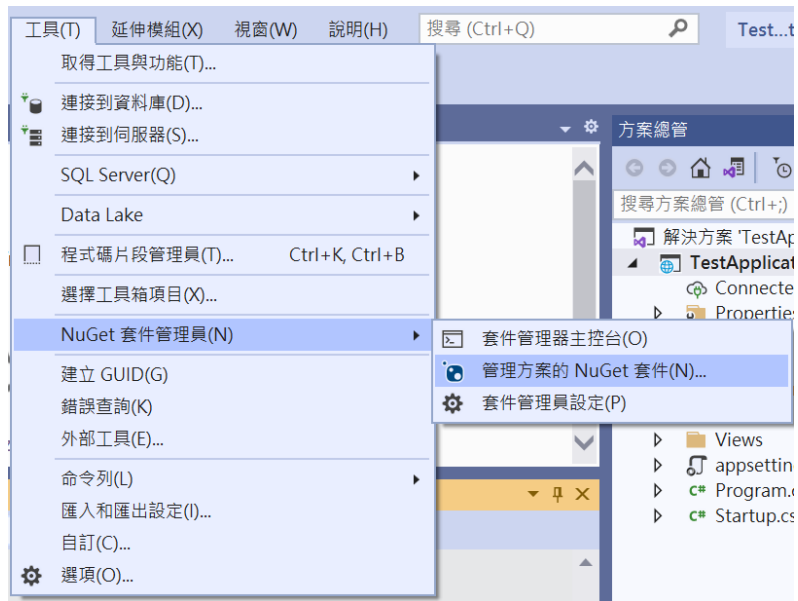


2. 要安裝下列二個套件

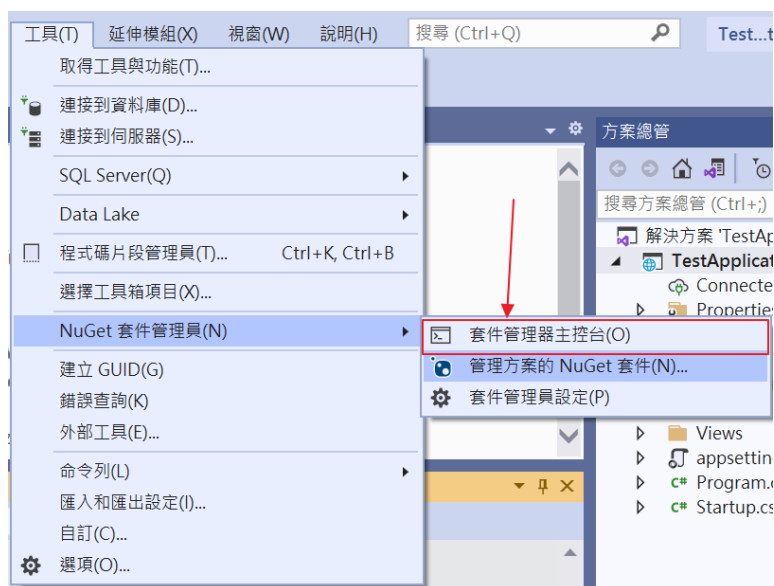
Microsoft.EntityFrameworkCore.Tools

Microsoft.EntityFrameworkCore.SqlServer

3.1 可以透過視覺化的介面安裝



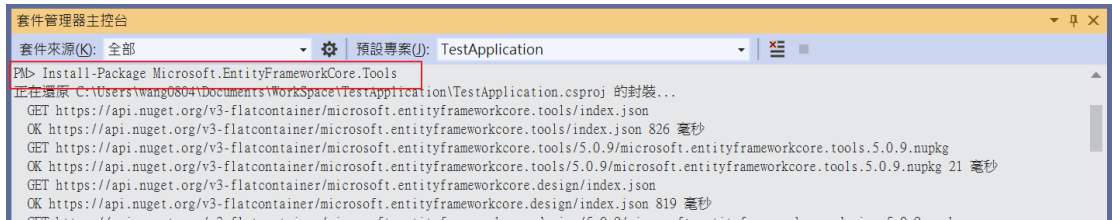
3.2 透過下指令的方式安裝



安裝

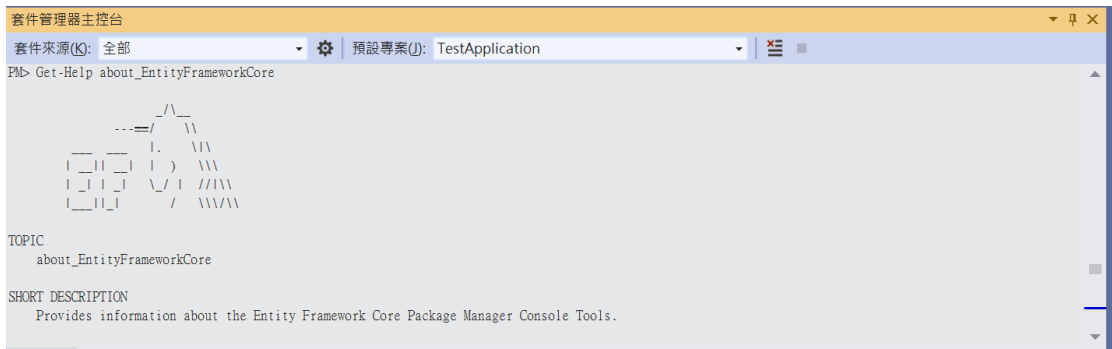
Install-Package Microsoft.EntityFrameworkCore.Tools

Install-Package Microsoft.EntityFrameworkCore.SqlServer

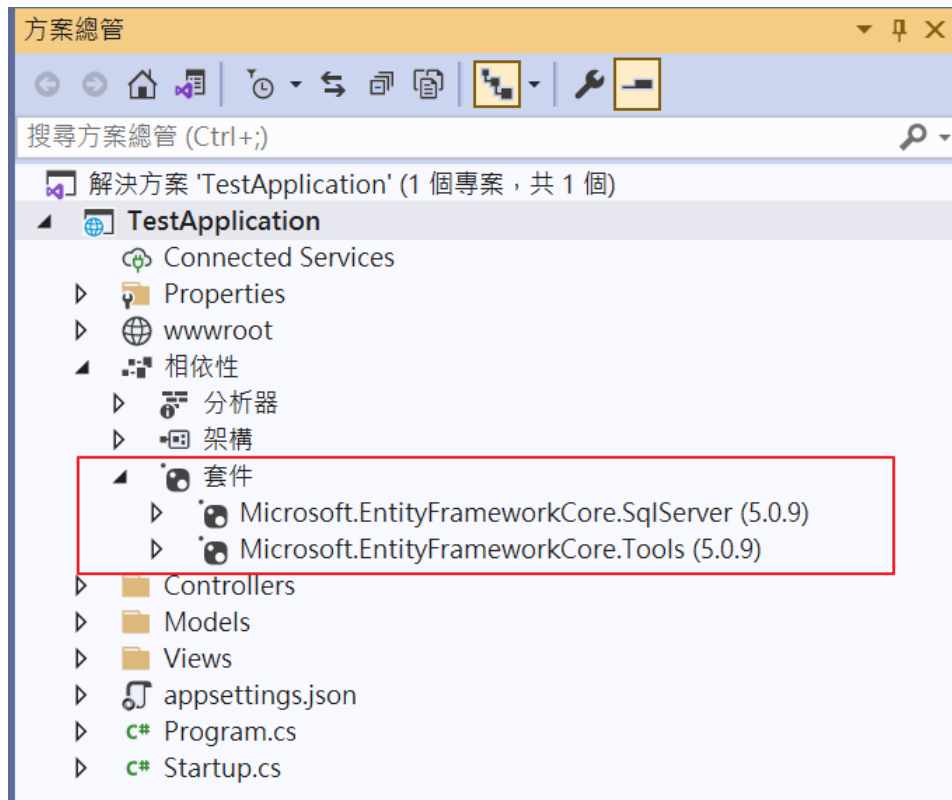


確認安裝是否成功

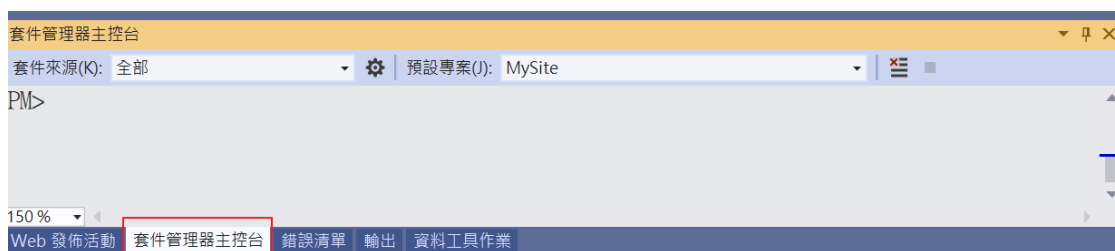
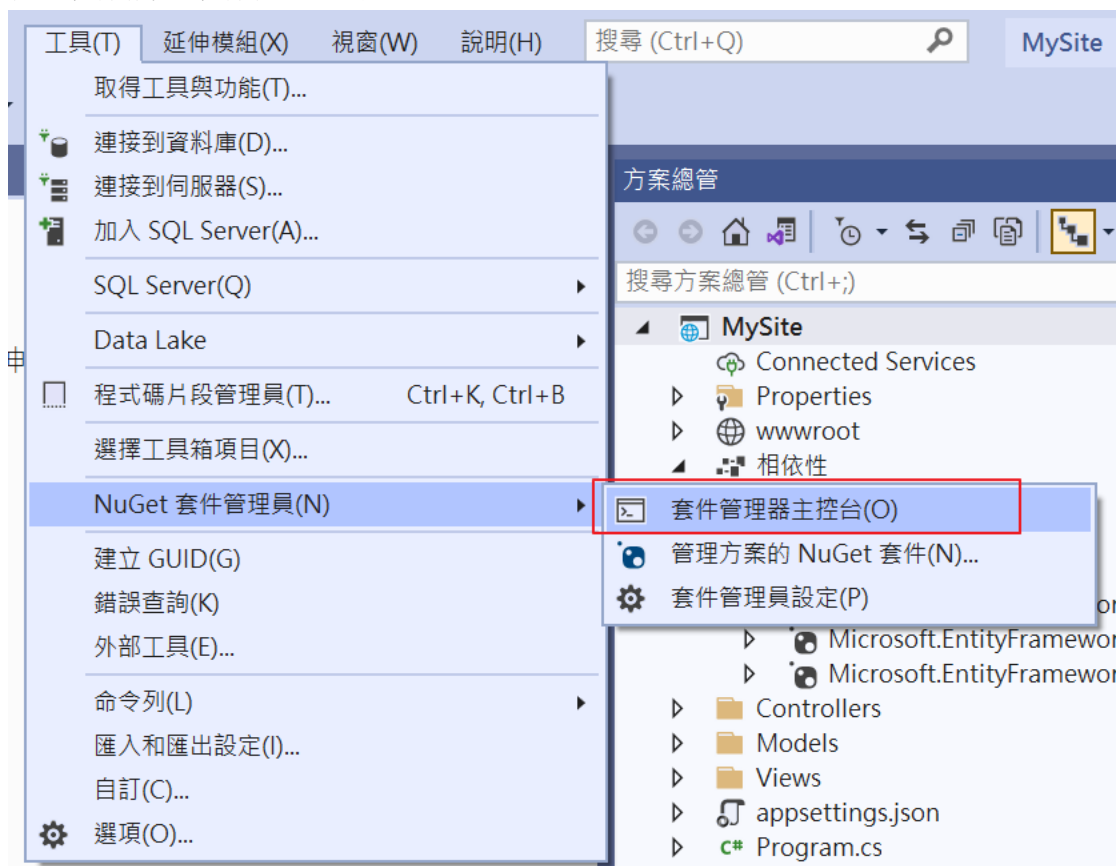
Get-Help about_EntityFrameworkCore



安裝完成後會在專案中看到



3. 根據資料庫的資料表產生對應的 DbContext、DbSet 類別



4. 在套件管理器主控台輸入下列指令

```
Scaffold-DbContext "Data Source=.;Initial
```

```
Catalog=Northwind;Integrated Security=True"
```

```
Microsoft.EntityFrameworkCore.SqlServer -OutputDir Models -Tables
```

```
Categories,Products,Shippers,Employees
```

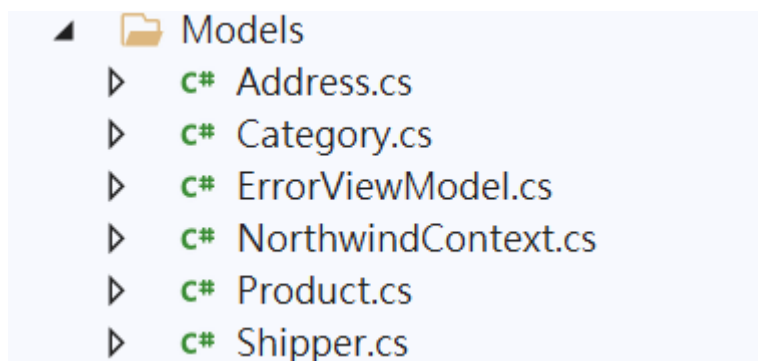
如果執行發生錯誤要重新輸入上列指令可以在指令的最後加上 -Force 參數，表示要覆寫之前已經產生過的檔案

```

PM> Scaffold-DbContext "Data Source=(localdb)\MSSQLLocalDB;Initial Catalog=Northwind;Integrated Security=True"
Microsoft.EntityFrameworkCore.SqlServer -OutputDir Models
Build started...
Build succeeded.
To protect potentially sensitive information in your connection string, you should move it out of source code. You
can avoid scaffolding the connection string by using the Name= syntax to read it from configuration - see https://
go.microsoft.com/fwlink/?linkid=2131148. For more guidance on storing connection strings, see http://
go.microsoft.com/fwlink/?LinkId=723263.
PM>

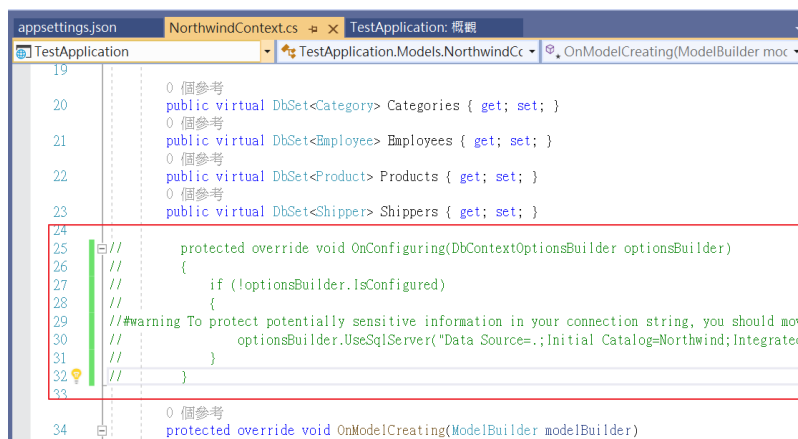
```

執行完成後在 **Models** 資料夾中，產生資料表對應的類別



5. 搬移連線字串

在 **NorthwindContext.cs** 中有連線字串，註解這段程式



在 **appsettings.json** 中設定連線字串

```

"ConnectionStrings": {
    "NorthwindConnection": "Data Source=.;Initial Catalog=Northwind;Integrated
Security=True;TrustServerCertificate=true"
}

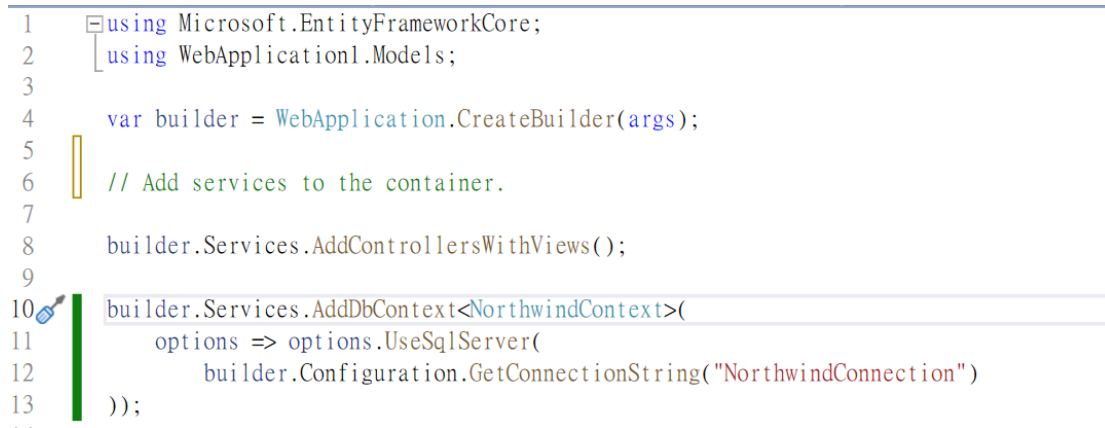
```



```
1 {
2   "Logging": {
3     "LogLevel": {
4       "Default": "Information",
5       "Microsoft": "Warning",
6       "Microsoft.Hosting.Lifetime": "Information"
7     }
8   },
9   "ConnectionStrings": {
10    "NorthwindConnection": "Data Source=.;Initial Catalog=Northwind;Integrated Security=True"
11  },
12  "AllowedHosts": "*"
13 }
14
```

6. 在 Program.cs 檔案中使用相依性注入的設定

```
builder.Services.AddDbContext<NorthwindContext>(  
    options => options.UseSqlServer(  
        builder.Configuration.GetConnectionString("NorthwindConnection")  
    ));
```



```
1 using Microsoft.EntityFrameworkCore;  
2 using WebApplication1.Models;  
3  
4 var builder = WebApplication.CreateBuilder(args);  
5  
6 // Add services to the container.  
7  
8 builder.Services.AddControllersWithViews();  
9  
10 builder.Services.AddDbContext<NorthwindContext>(  
11     options => options.UseSqlServer(  
12         builder.Configuration.GetConnectionString("NorthwindConnection")  
13     ));
```

7. 測試看看 Entity Framework Core 是否設定完成

在 Controller 的建構函式中注入在 Program.cs 註冊過的 NorthwindContext 物件

```
private readonly NorthwindContext _conetxt;  
public HomeController ILogger<NorthwindContext conetxt)  
{  
    _conetxt = conetxt;  
}  
public IActionResult Index()  
{  
    var products = _conetxt.Products.Where(p => p.CategoryId == 1);  
    return View(products);  
}
```

```

public class HomeController : Controller
{
    private readonly ILogger<HomeController> _logger;
    private readonly NorthwindContext _conetxt;

    0 個參考
    public HomeController(ILogger<HomeController> logger, NorthwindContext conetxt)
    {
        _logger = logger;
        _conetxt = conetxt;
    }
    0 個參考
    public IActionResult Index()
    {
        var products = _conetxt.Products.Where(p => p.CategoryId == 1);
        return View(products);
    }
}

```

在 **View** 中使用 **Controller** 傳過來的資料

```
@model IEnumerable<WebApplication1.Models.Product>
```

```
<ul>
```

```
    @foreach(var product in Model)
```

```
    {
```

```
        <li>@product.ProductName</li>
```

```
    }
```

```
</ul>
```

```
@model IEnumerable<WebApplication1.Models.Product>
```

```
@{
```

```
    ViewData["Title"] = "Home Page";
```

```
}
```

```
<ul>
```

```
    @foreach(var product in Model)
```

```
    {
```

```
        <li>@product.ProductName</li>
```

```
    }
```

```
</ul>
```

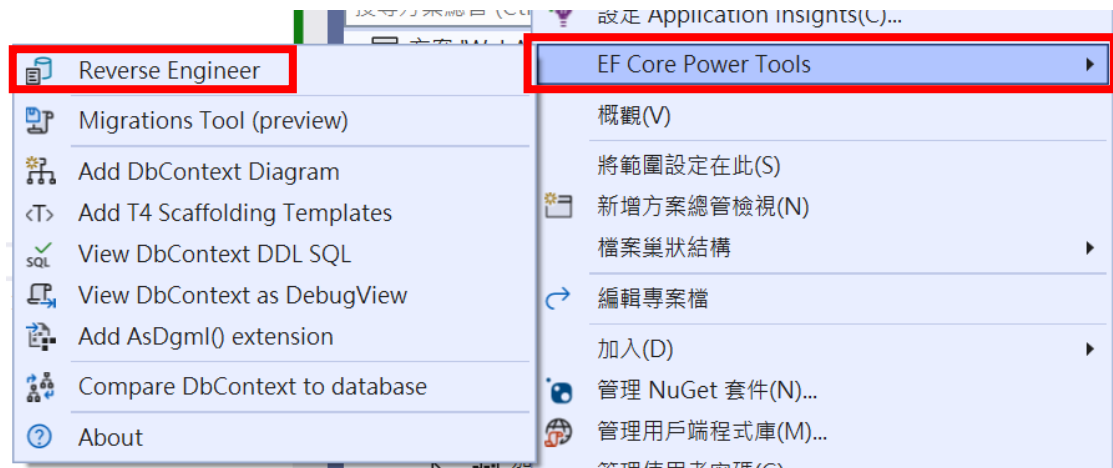
- Chai
- Chang
- Guaraná Fantástica
- Sasquatch Ale
- Steeleye Stout
- Côte de Blaye
- Chartreuse verte
- Ipoh Coffee
- Laughing Lumberjack Lager
- Outback Lager
- Rhönbräu Klosterbier
- Lakkalikööri

安裝 Visual Studio 延伸模組 - EF Core Power Tools

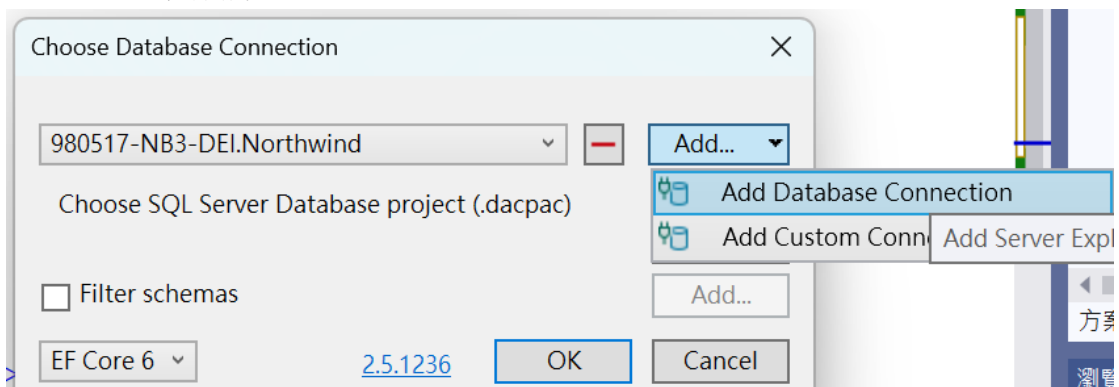
<https://marketplace.visualstudio.com/items?itemName=ErikEJ.EFCorePowerTools>

安裝前先關掉 Visual Studio

安裝完成後，開啟 Visual Studio，在專案上點選滑鼠右鍵會看到 [EF Core Power Tools] 的選單，接下來再選擇 [Reverse Engineer]



選擇或新增資料庫的連線



挑選你要用的 Tables、Views 或 Stored procedures

