



Snabbguide

Asp.Net Core MVC med Entity Framework
(DatabaseFirst)

Visual Studio 2019

Open recent

As you use Visual Studio, any projects, folders, or files that you open will show up here for quick access

You can pin anything that you open frequently so that it's always at the top of the list.

Get started



Clone a repository

Get code from an online repository like GitHub or Azure DevOps



Open a project or solution

Open a local Visual Studio project or .sln file



Open a local folder

Navigate and edit code within any folder













Create a new project

Choose a project template with code scaffolding to get started

[Continue without code →](#)

Create a new project

Recent project templates

-  ASP.NET Core Web Application C#
-  Console App (.NET Core) C#
-  Blazor App C#
-  Blank App (Universal Windows) C#
-  ASP.NET Web Application (.NET Framework) C#
-  Azure Functions C#
-  Analysis Services Multidimensional and Data Mining Project
-  Integration Services Project
-  Windows Forms App (.NET Framework) Visual Basic
-  Console App (.NET Framework) C#

Search for templates (Alt+S)



Clear all

C#

All platforms

All project types



Console App (.NET Core)

A project for creating a command-line application that can run on .NET Core on Windows, Linux and MacOS.

Console C# Linux macOS Windows



ASP.NET Core Web Application

Project templates for creating ASP.NET Core web apps and web APIs for Windows, Linux and macOS using .NET Core or .NET Framework. Create web apps with Razor Pages, MVC, or Single Page Apps (SPA) using Angular, React, or React + Redux.

Cloud C# Linux macOS Service Web Windows



Blazor App

Project templates for creating Blazor apps that run on the server in an ASP.NET Core app or in the browser on WebAssembly. These templates can be used to build web apps with rich dynamic user interfaces (UIs).

Cloud C# Linux macOS Web Windows



Class Library (.NET Standard)

A project for creating a class library that targets .NET Standard.

Android C# iOS Library Linux macOS Windows

Back

Next

Configure your new project

ASP.NET Core Web Application

Cloud

C#

Linux

macOS

Service

Web


Windows

Project name

DatabaseFirst

Location



Solution name 

DatabaseFirst

☐ Place solution and project in the same directory

Back

Create

Create a new ASP.NET Core web application

.NET Core ASP.NET Core 3.1



Empty

An empty project template for creating an ASP.NET Core application. This template does not have any content in it.



API

A project template for creating an ASP.NET Core application with an example Controller for a RESTful HTTP service. This template can also be used for ASP.NET Core MVC Views and Controllers.



Web Application

A project template for creating an ASP.NET Core application with example ASP.NET Razor Pages content.



Web Application (Model-View-Controller)

A project template for creating an ASP.NET Core application with example ASP.NET Core MVC Views and Controllers. This template can also be used for RESTful HTTP services.



Angular

A project template for creating an ASP.NET Core application with Angular



React.js

[Get additional project templates](#)

Authentication

No Authentication

[Change](#)

Advanced

☐ Configure for HTTPS

☐ Enable Docker Support

(Requires [Docker Desktop](#))

Linux

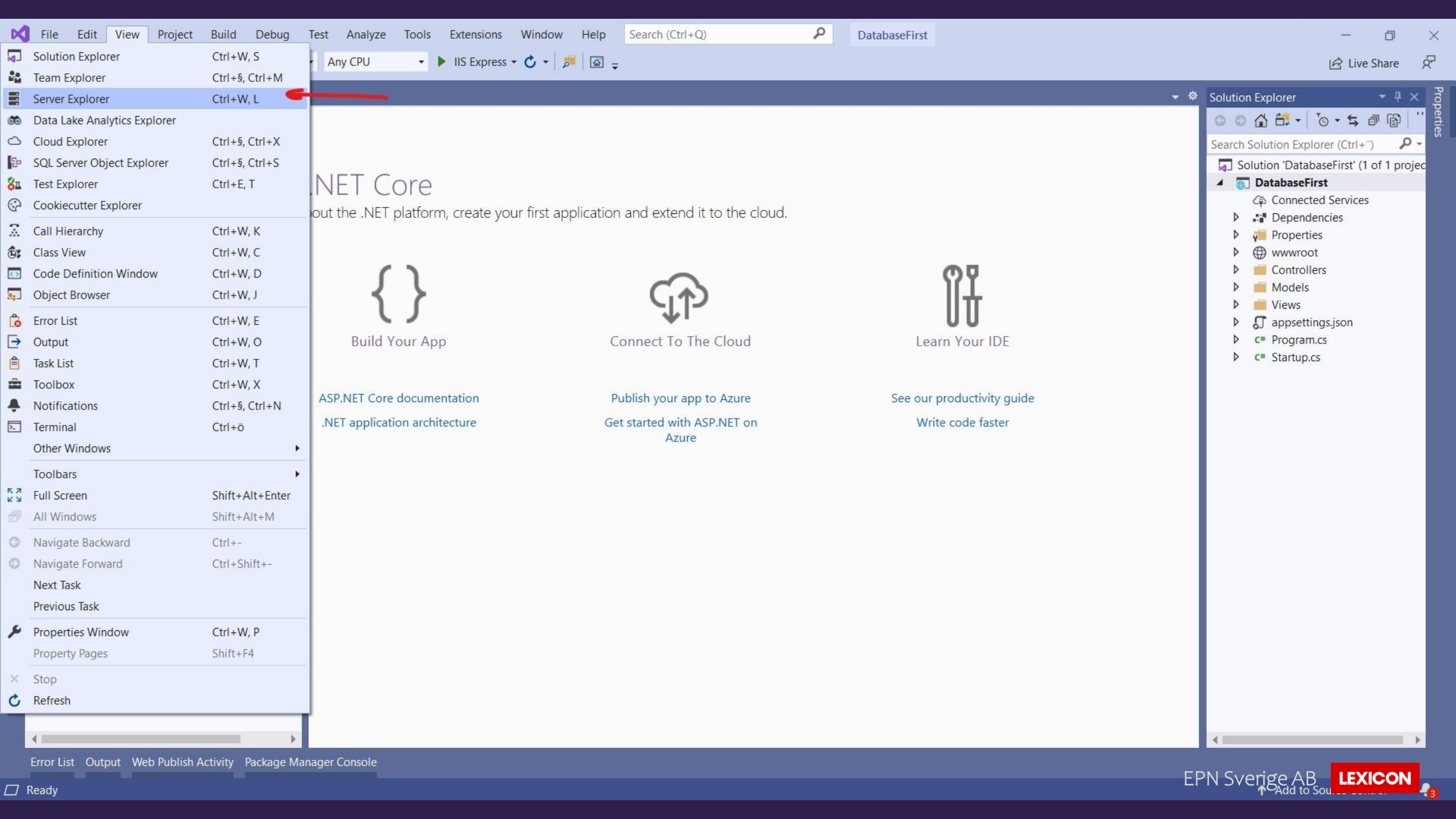
☐ Enable Razor runtime compilation

Author: Microsoft

Source: Templates 3.1.5

Back

Create



- | View | Shortcut |
|------------------------------|-----------------|
| Solution Explorer | Ctrl+W, S |
| Team Explorer | Ctrl+S, Ctrl+M |
| Server Explorer | Ctrl+W, L |
| Data Lake Analytics Explorer | |
| Cloud Explorer | Ctrl+S, Ctrl+X |
| SQL Server Object Explorer | Ctrl+S, Ctrl+S |
| Test Explorer | Ctrl+E, T |
| Cookiecutter Explorer | |
| Call Hierarchy | Ctrl+W, K |
| Class View | Ctrl+W, C |
| Code Definition Window | Ctrl+W, D |
| Object Browser | Ctrl+W, J |
| Error List | Ctrl+W, E |
| Output | Ctrl+W, O |
| Task List | Ctrl+W, T |
| Toolbox | Ctrl+W, X |
| Notifications | Ctrl+S, Ctrl+N |
| Terminal | Ctrl+ö |
| Other Windows | |
| Toolbars | |
| Full Screen | Shift+Alt+Enter |
| All Windows | Shift+Alt+M |
| Navigate Backward | Ctrl+- |
| Navigate Forward | Ctrl+Shift+- |
| Next Task | |
| Previous Task | |
| Properties Window | Ctrl+W, P |
| Property Pages | Shift+F4 |
| Stop | |
| Refresh | |

ASP.NET Core

With the .NET platform, create your first application and extend it to the cloud.



Build Your App

[ASP.NET Core documentation](#)

[.NET application architecture](#)



Connect To The Cloud

[Publish your app to Azure](#)

[Get started with ASP.NET on Azure](#)

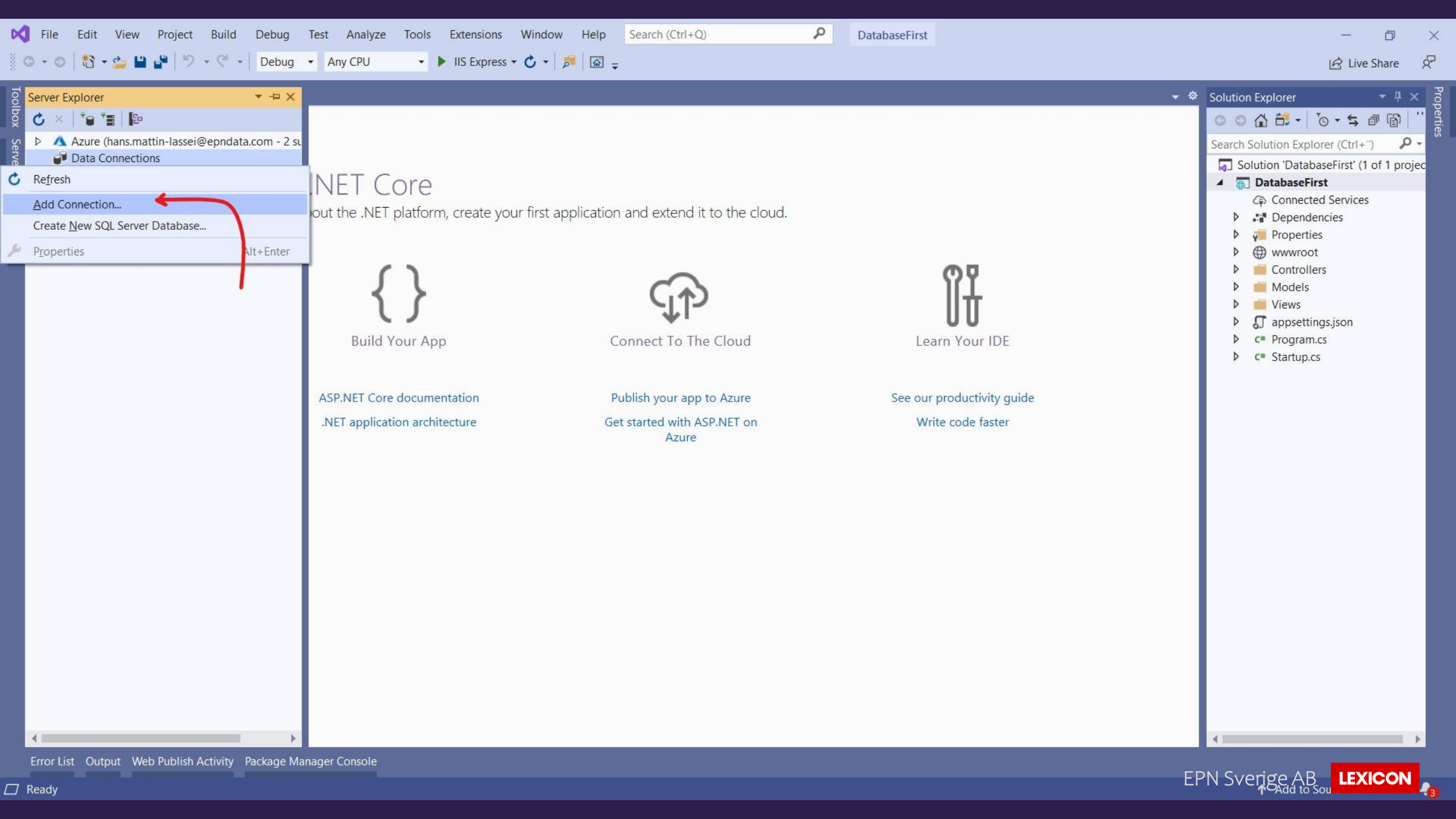


Learn Your IDE

[See our productivity guide](#)

[Write code faster](#)

- Solution Explorer
- Search Solution Explorer (Ctrl+')
- Solution 'DatabaseFirst' (1 of 1 project)
- DatabaseFirst
 - Connected Services
 - Dependencies
 - Properties
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 - appsettings.json
 - Program.cs
 - Startup.cs



ASP.NET Core

About the .NET platform, create your first application and extend it to the cloud.



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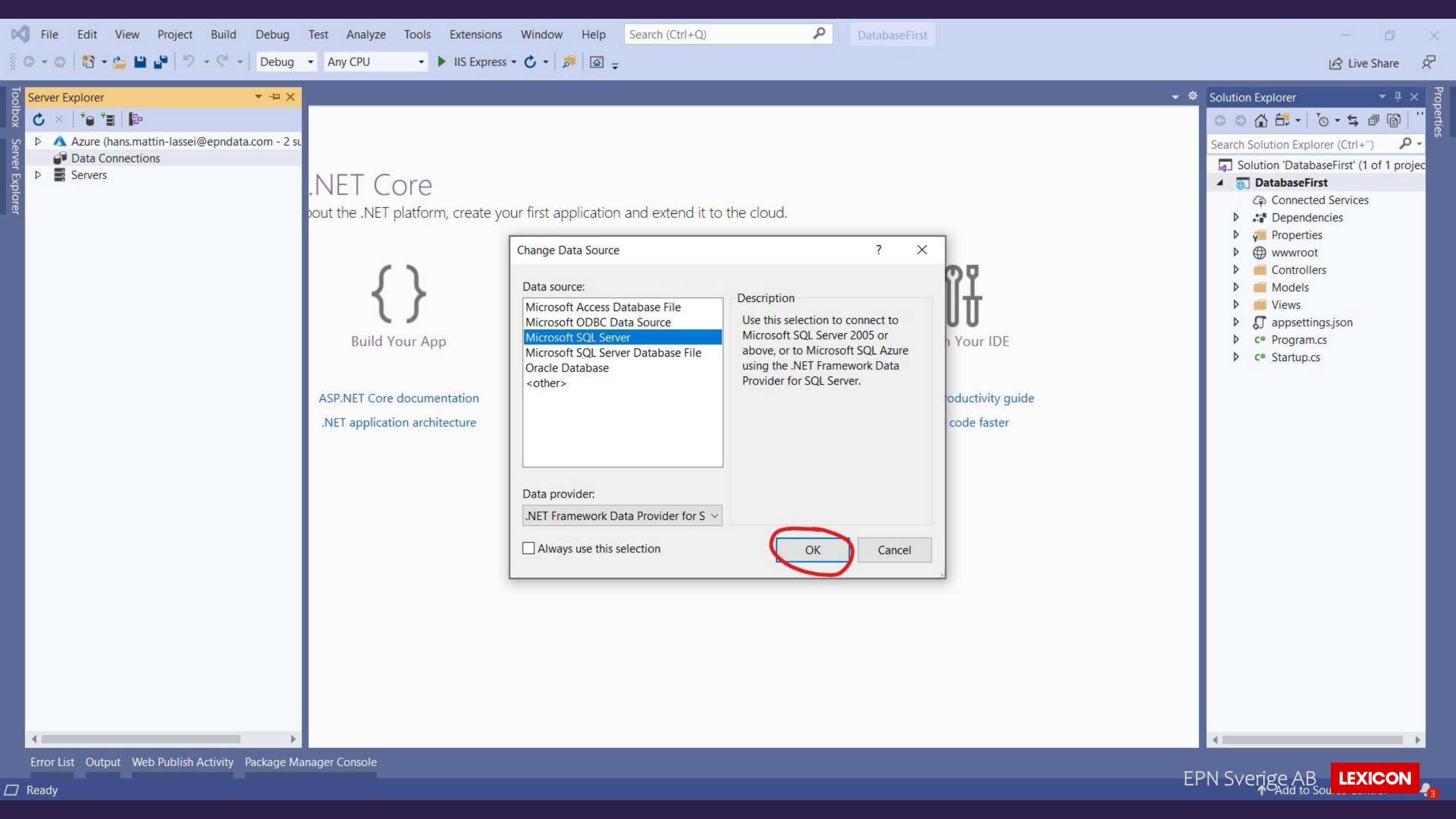
Solution Explorer

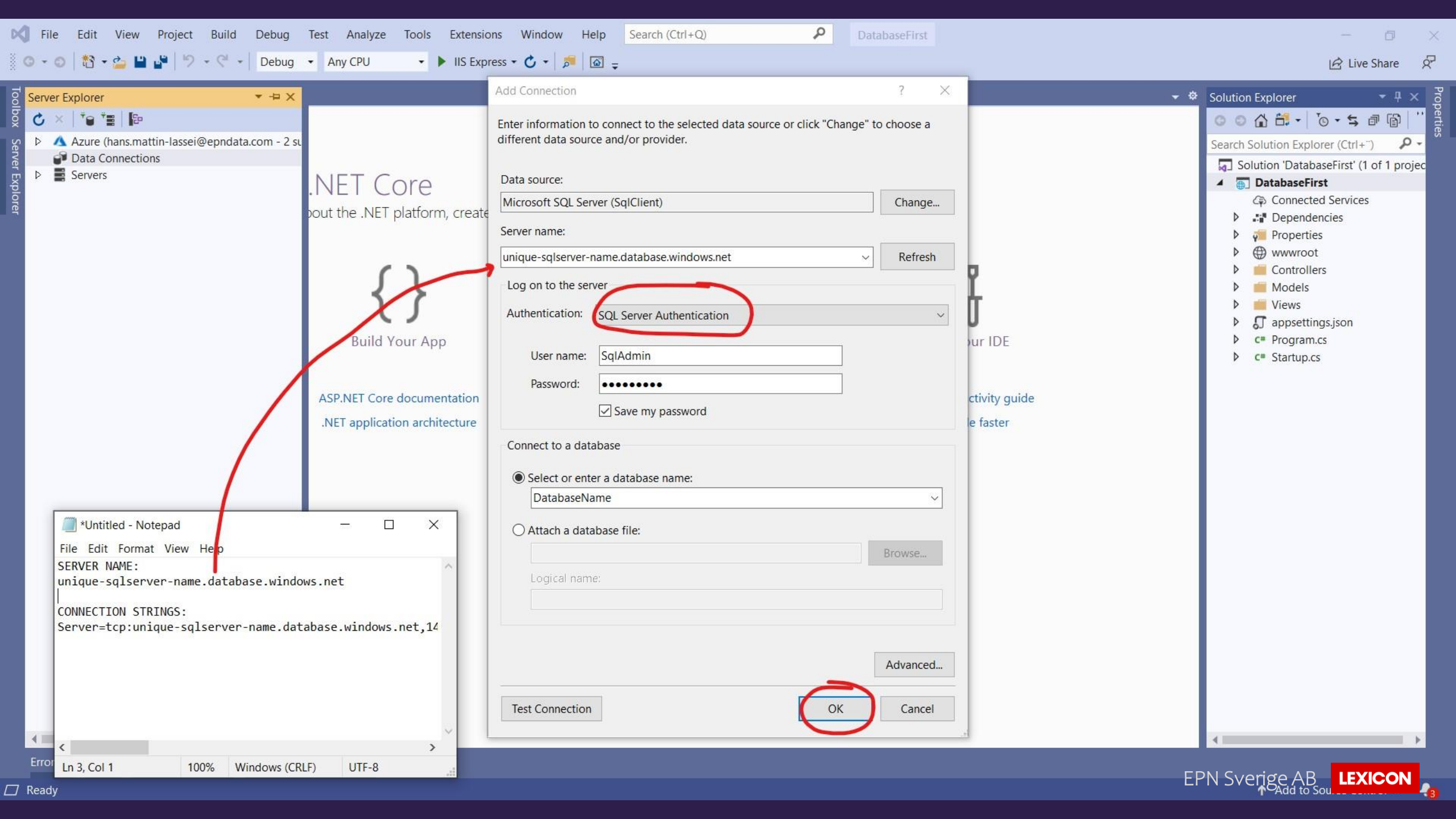
Search Solution Explorer (Ctrl+)

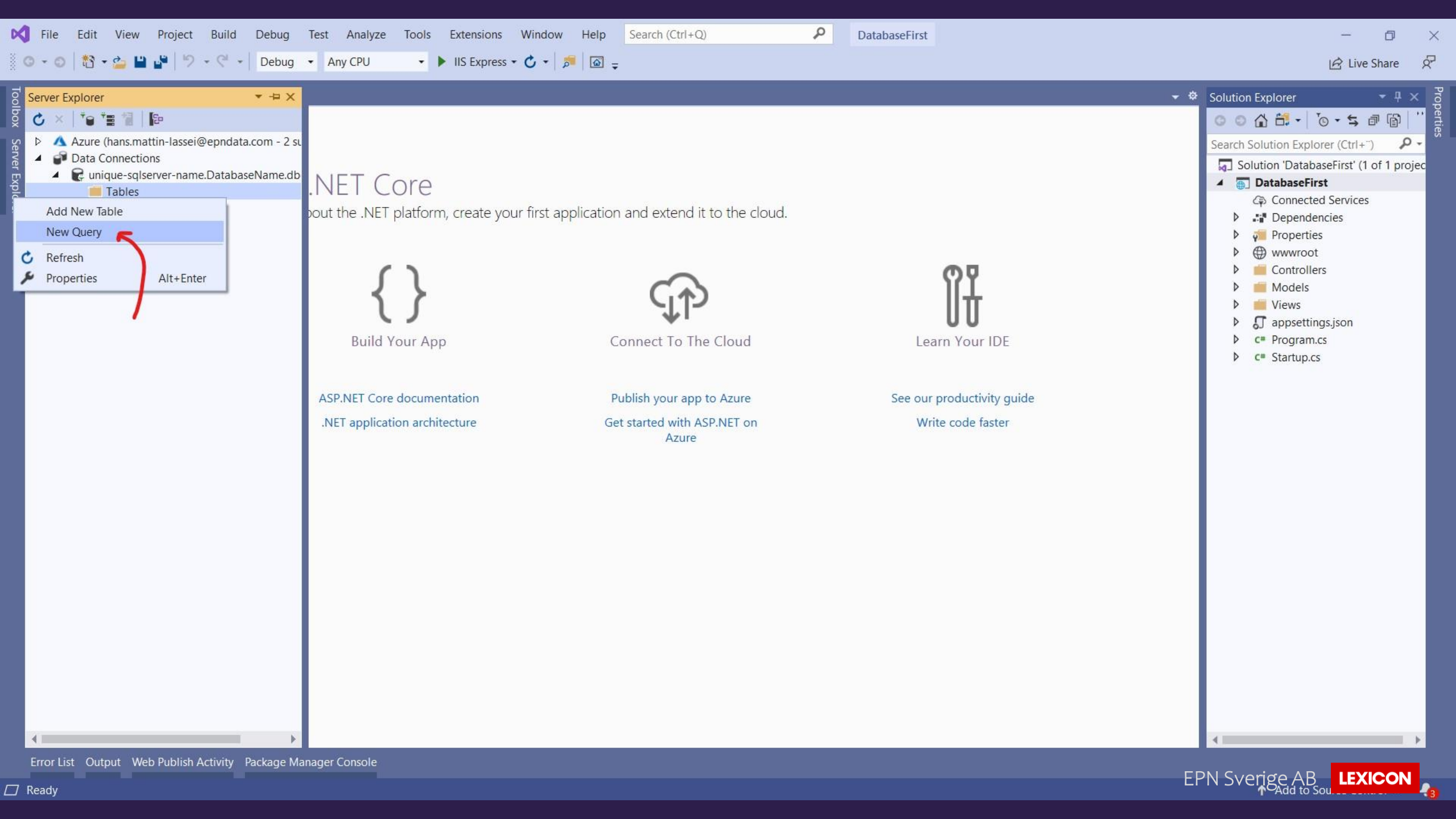
Solution 'DatabaseFirst' (1 of 1 project)

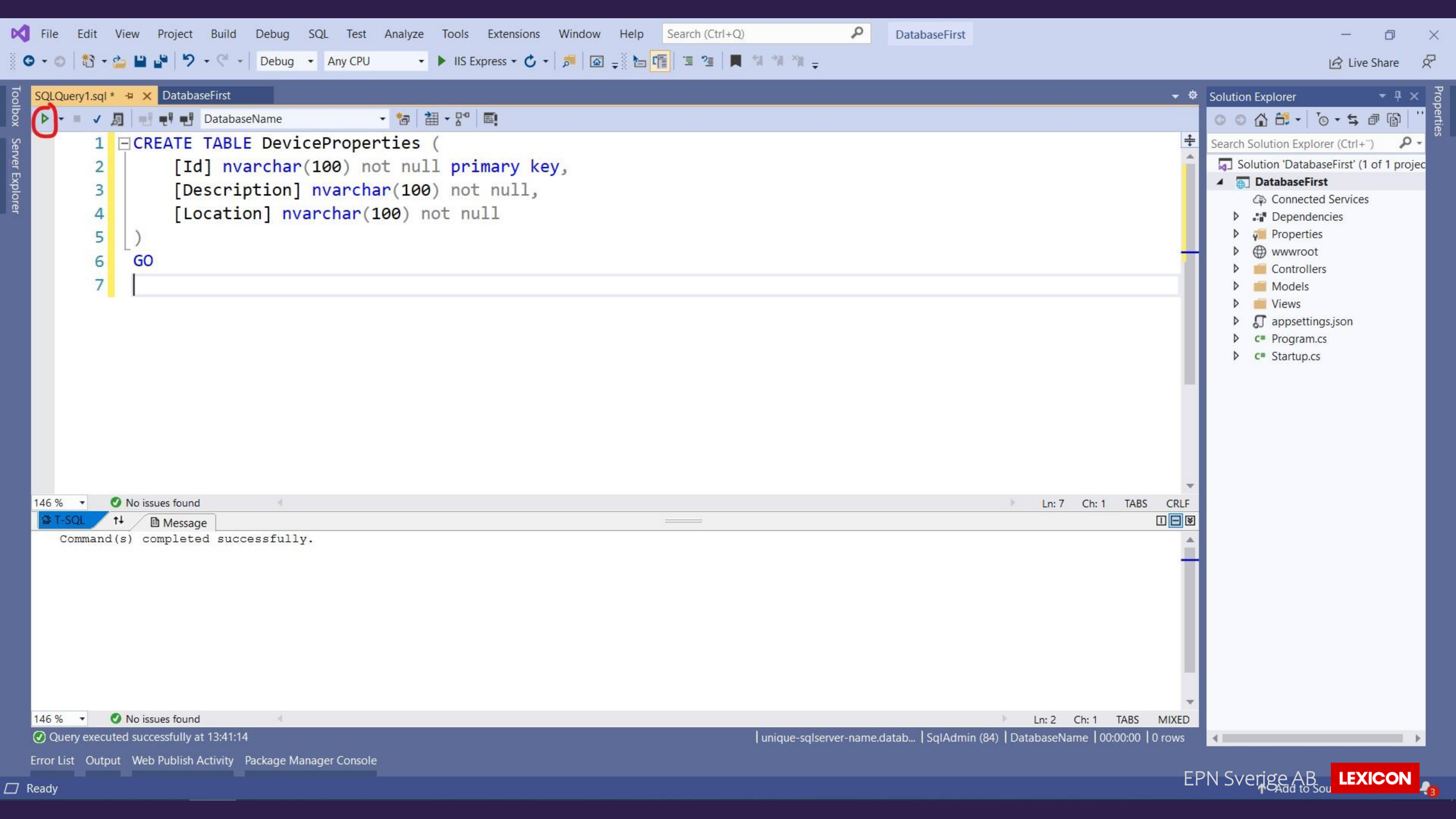
DatabaseFirst

- Connected Services
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```
1 CREATE TABLE DeviceProperties (  
2     [Id] nvarchar(100) not null primary key,  
3     [Description] nvarchar(100) not null,  
4     [Location] nvarchar(100) not null  
5 )  
6 GO  
7
```

- Solution Explorer
- Search Solution Explorer (Ctrl+Q)
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146 % No issues found Ln: 7 Ch: 1 TABS CRLF

T-SQL Message

Command(s) completed successfully.

146 % No issues found Ln: 2 Ch: 1 TABS MIXED

Query executed successfully at 13:41:14 | unique-sqlserver-name.datab... | SqlAdmin (84) | DatabaseName | 00:00:00 | 0 rows

FileEditViewProjectBuildDebugTestAnalyzeToolsExtensionsWindowHelpSearch (Ctrl+Q)

DatabaseFirst

Live Share

appsettings.json*

Schema: https://json.schemastore.org/appsettings

1{

2 "Logging": {

3 "LogLevel": {

4 "Default": "Information",

5 "Microsoft": "Warning",

6 "Microsoft.Hosting.Lifetime": "Information"

7 }

8 },

9 "AllowedHosts": "*",

10 "ConnectionStrings": {

11 "SqlConnection": "Server=tcp:unique-sqlserver-name.database.windows.net,1433;Initial Catalog=Databa

12 }

13 }

14

Solution Explorer

Search Solution Explorer (Ctrl+)

Solution 'DatabaseFirst' (1 of 1 project)

DatabaseFirst

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*Untitled - Notepad

FileEditFormatViewHelp

SERVER NAME:
unique-sqlserver-name.database.windows.net

CONNECTION STRINGS:
Server=tcp:unique-sqlserver-name.database.windows.net,1433;Initial Catalog=DatabaseName;Persist Security Info=False;User ID=SqlAdmin;Password=BytMig123;MultipleActiveResultSets=False;

146

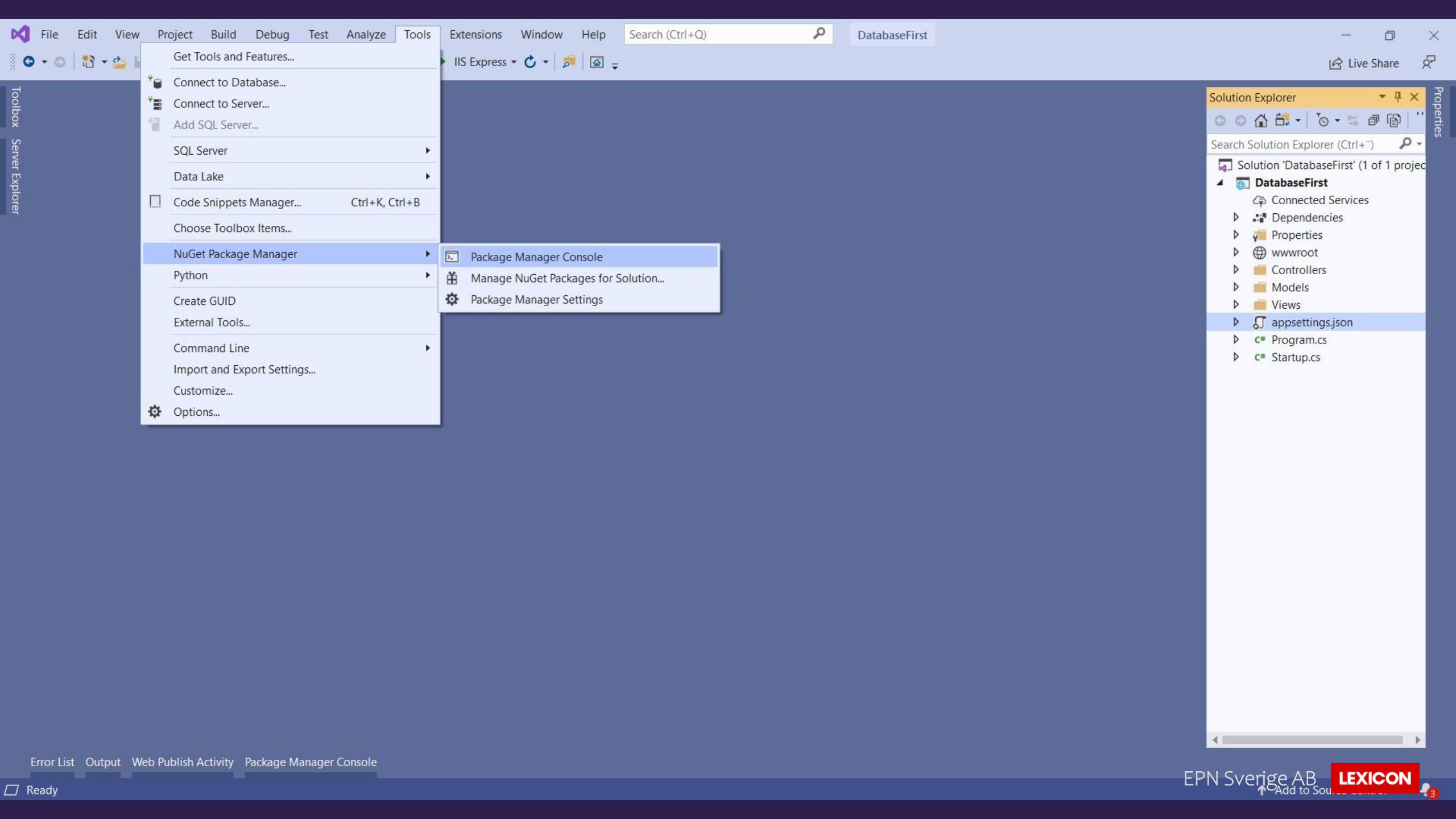
Error

Ln 5, Col 34100%Windows (CRLF)UTF-8

Ready

EPN Sverige AB

LEXICON



Get Tools and Features...

Connect to Database...

Connect to Server...

Add SQL Server...

SQL Server

Data Lake

Code Snippets Manager... Ctrl+K, Ctrl+B

Choose Toolbox Items...

NuGet Package Manager

Python

Create GUID

External Tools...

Command Line

Import and Export Settings...

Customize...

Options...

Package Manager Console

Manage NuGet Packages for Solution...

Package Manager Settings

Solution Explorer

Search Solution Explorer (Ctrl+Q)

Solution 'DatabaseFirst' (1 of 1 projects)

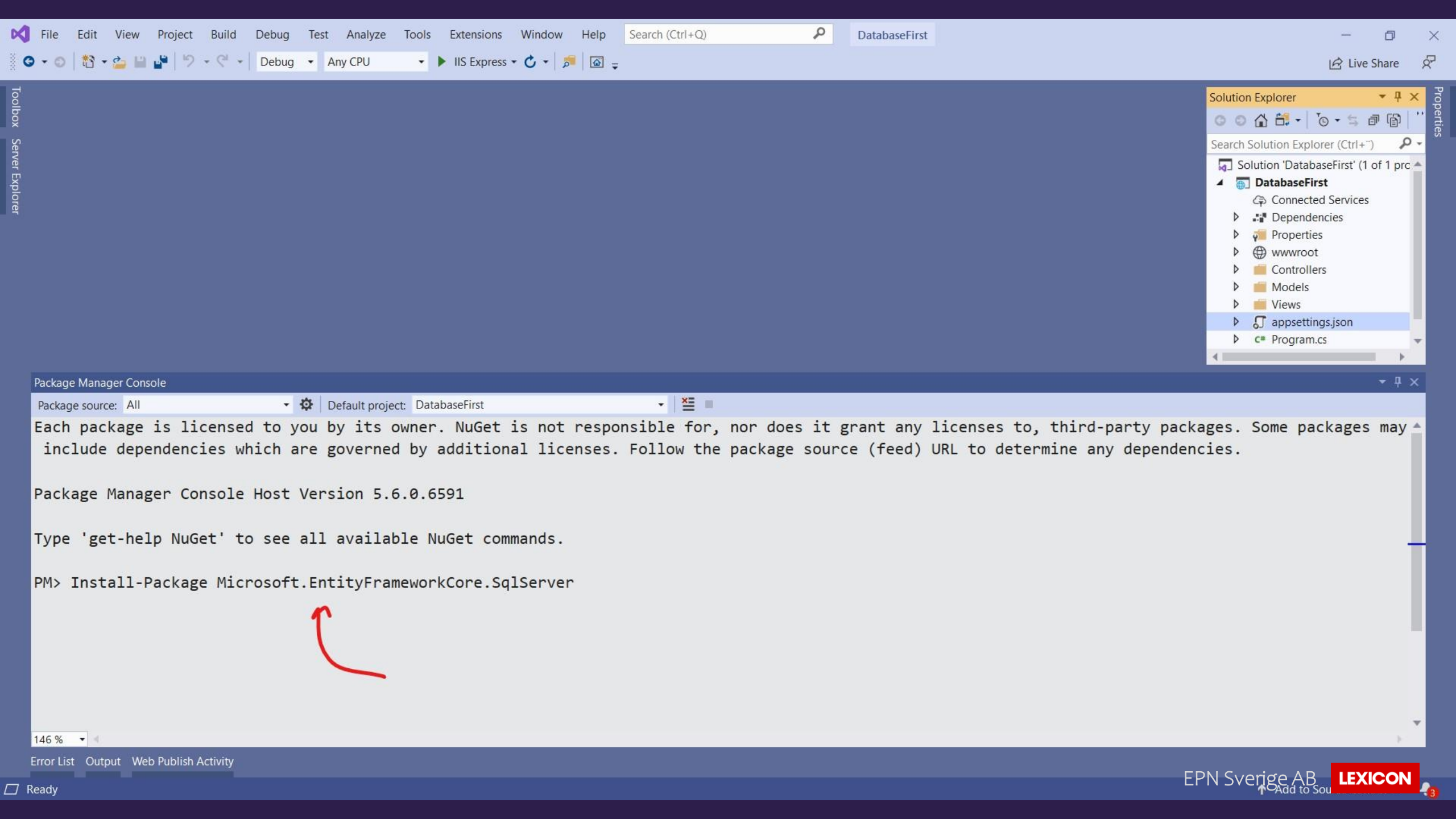
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Error List Output Web Publish Activity Package Manager Console

Ready

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Package Manager Console

Package source: All Default project: DatabaseFirst

Each package is licensed to you by its owner. NuGet is not responsible for, nor does it grant any licenses to, third-party packages. Some packages may include dependencies which are governed by additional licenses. Follow the package source (feed) URL to determine any dependencies.

Package Manager Console Host Version 5.6.0.6591

Type 'get-help NuGet' to see all available NuGet commands.

PM> Install-Package Microsoft.EntityFrameworkCore.SqlServer



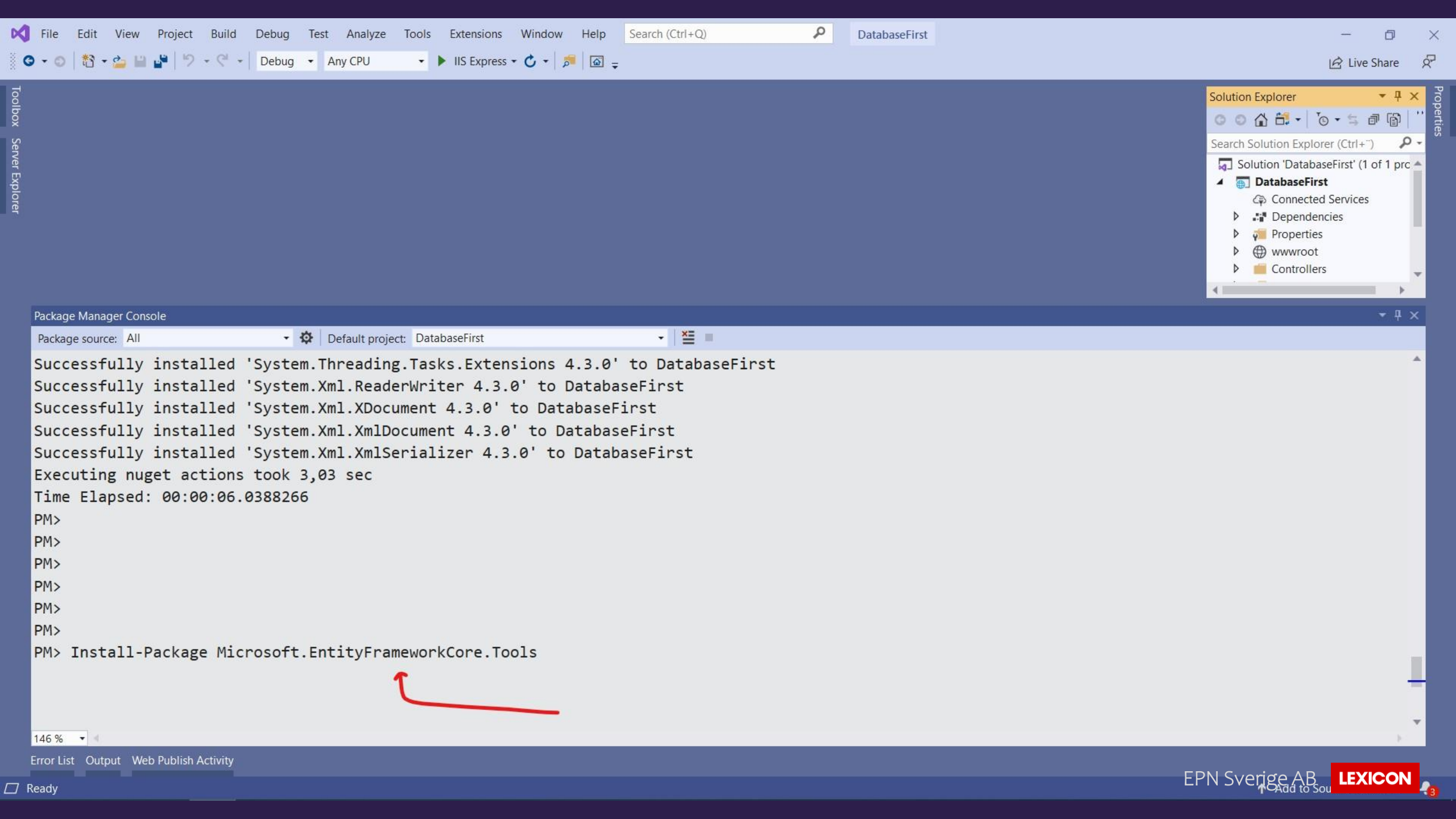
146 %

Error List Output Web Publish Activity

Ready

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Package Manager Console

Package source: All Default project: DatabaseFirst

```
Successfully installed 'System.Threading.Tasks.Extensions 4.3.0' to DatabaseFirst
Successfully installed 'System.Xml.ReaderWriter 4.3.0' to DatabaseFirst
Successfully installed 'System.Xml.XDocument 4.3.0' to DatabaseFirst
Successfully installed 'System.Xml.XmlDocument 4.3.0' to DatabaseFirst
Successfully installed 'System.Xml.XmlSerializer 4.3.0' to DatabaseFirst
Executing nuget actions took 3,03 sec
Time Elapsed: 00:00:06.0388266
PM>
PM>
PM>
PM>
PM>
PM>
PM>
PM> Install-Package Microsoft.EntityFrameworkCore.Tools
```

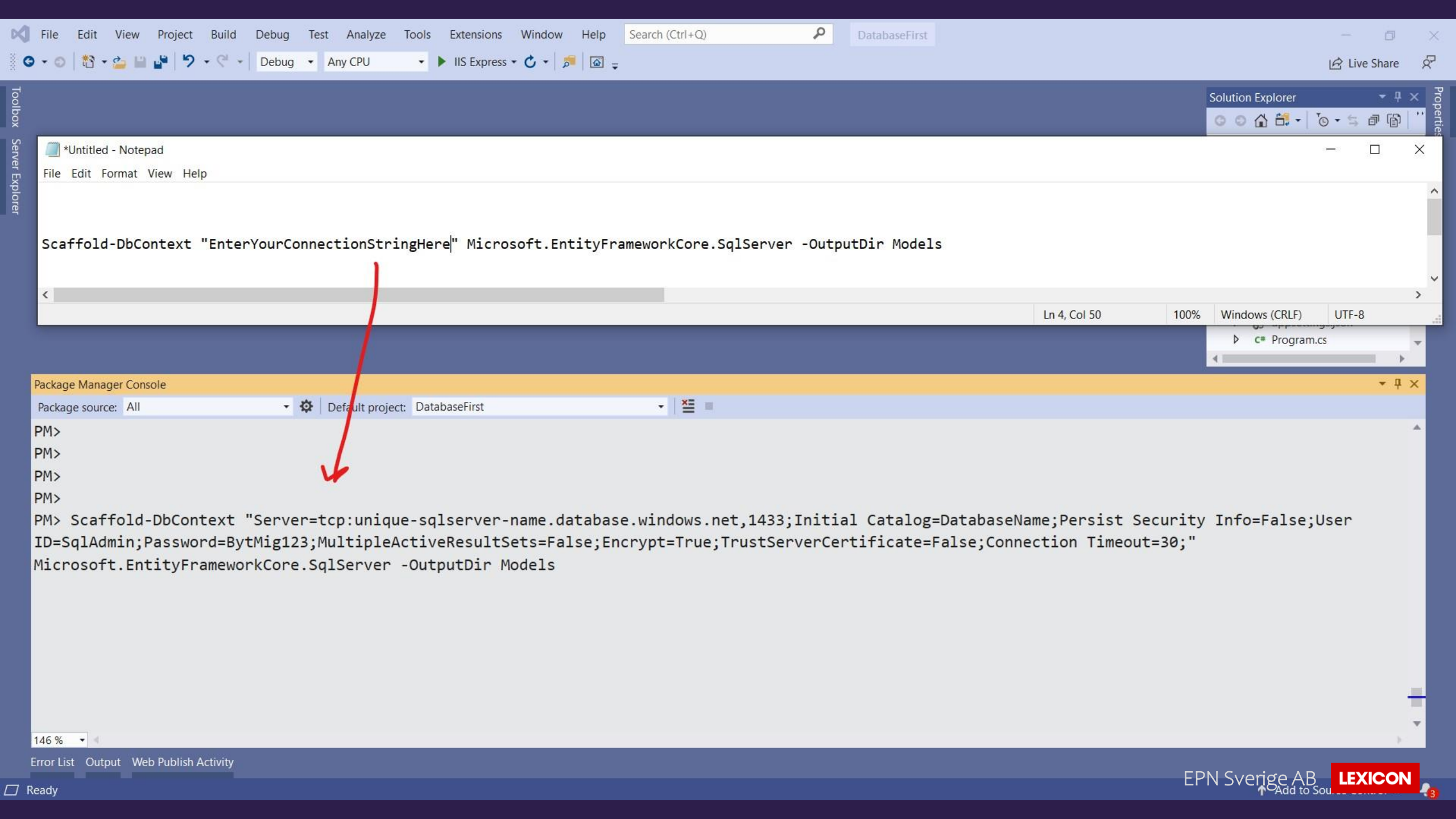
146 %

Error List Output Web Publish Activity

Ready

EPN Sverige AB

LEXICON



Visual Studio interface showing the code for `Startup.cs` in the `DatabaseFirst` project. The code is for the `Startup(IConfiguration configuration)` method.

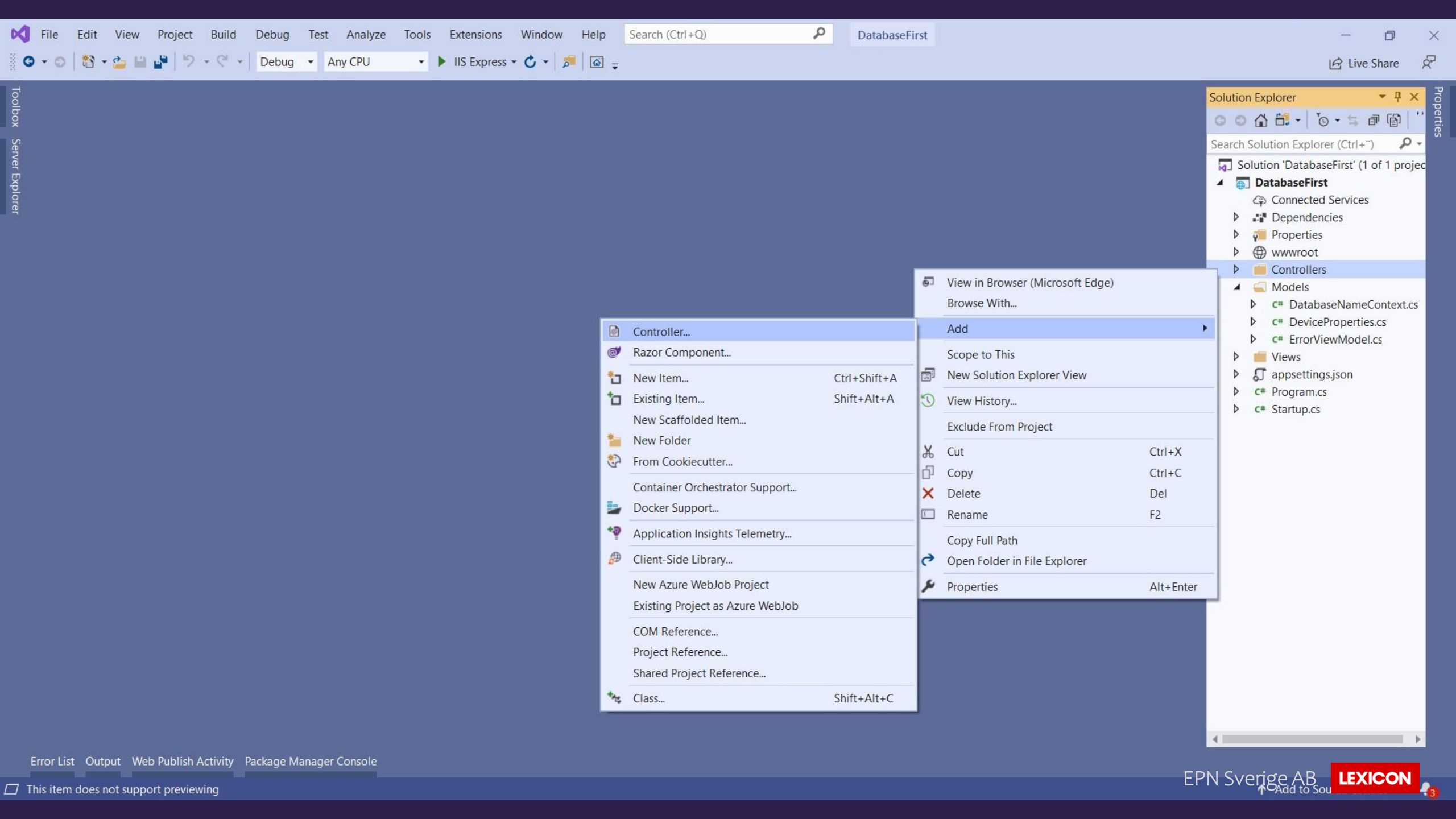
```
7 using Microsoft.Extensions.Configuration;
8 using Microsoft.Extensions.DependencyInjection;
9 using Microsoft.Extensions.Hosting;
10
11 using DatabaseFirst.Models;
12 using Microsoft.EntityFrameworkCore;
13
14 namespace DatabaseFirst
15 {
16     2 references
17     public class Startup
18     {
19         0 references
20         public Startup(IConfiguration configuration)
21         {
22             Configuration = configuration;
23         }
24
25         2 references
26         public IConfiguration Configuration { get; }
27
28         // This method gets called by the runtime. Use this method to add services to the container.
29         0 references
30         public void ConfigureServices(IServiceCollection services)
31         {
32             services.AddDbContext<DatabaseNameContext>(opt => opt.UseSqlServer(Configuration.GetConnectionString("SqlConnection")));
33             services.AddControllersWithViews();
34         }
35
36         // This method gets called by the runtime. Use this method to configure the HTTP request pipeline.
37         0 references
38         public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
39         {
40             // ...
41         }
42     }
43 }
```

The code is annotated with red markings:

- A red arrow points to the `using DatabaseFirst.Models;` line (line 11).
- A red circle highlights the `services.AddDbContext<DatabaseNameContext>(opt => opt.UseSqlServer(Configuration.GetConnectionString("SqlConnection")));` line (line 32).

The Solution Explorer on the right shows the project structure:

- Solution 'DatabaseFirst' (1 of 1 project)
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- Controller...
- Razor Component...
- New Item... Ctrl+Shift+A
- Existing Item... Shift+Alt+A
- New Scaffolded Item...
- New Folder
- From Cookiecutter...
- Container Orchestrator Support...
- Docker Support...
- Application Insights Telemetry...
- Client-Side Library...
- New Azure WebJob Project
- Existing Project as Azure WebJob
- COM Reference...
- Project Reference...
- Shared Project Reference...
- Class... Shift+Alt+C

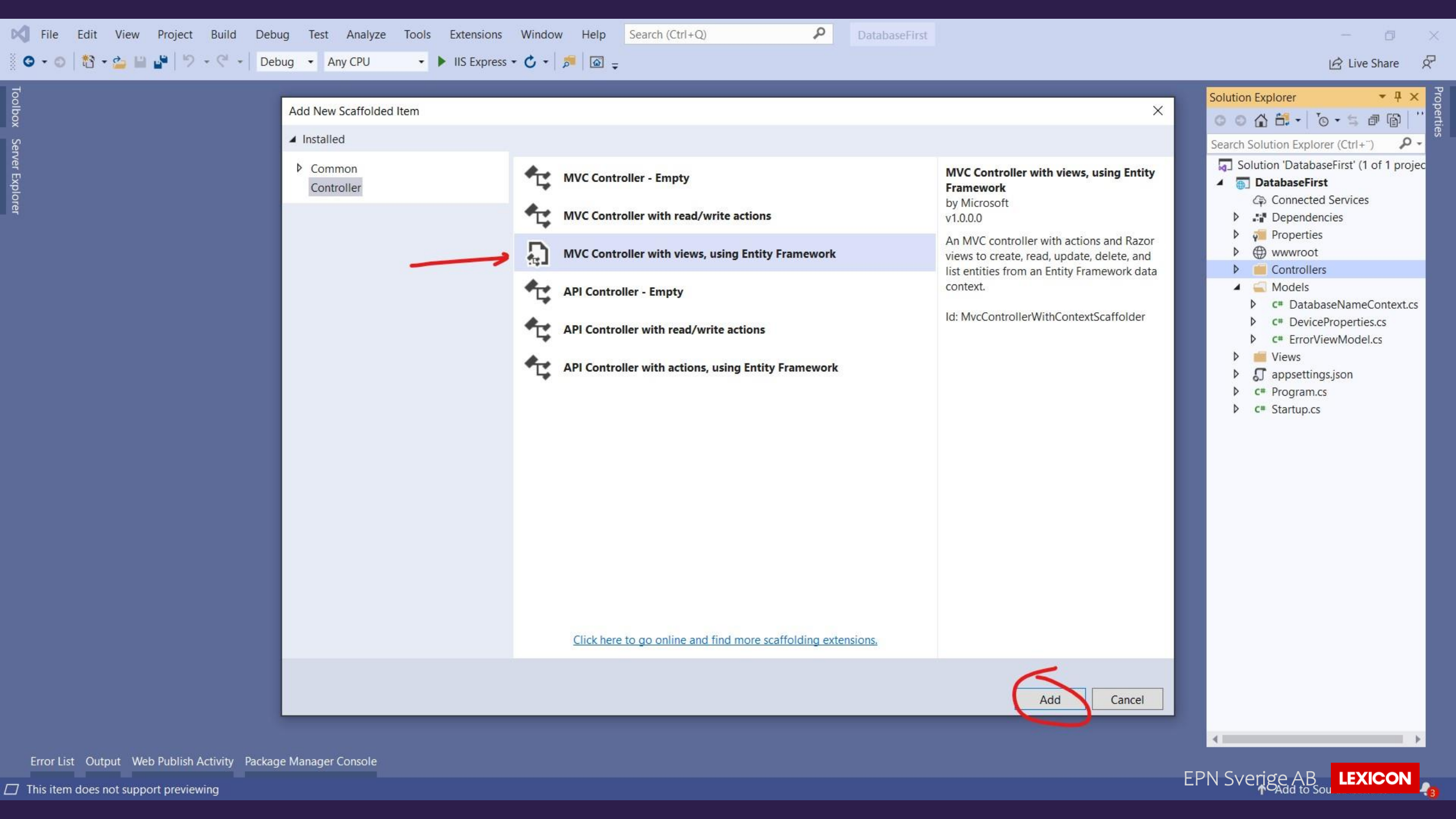
- View in Browser (Microsoft Edge)
- Browse With...
- Add
- Scope to This
- New Solution Explorer View
- View History...
- Exclude From Project
- Cut Ctrl+X
- Copy Ctrl+C
- Delete Del
- Rename F2
- Copy Full Path
- Open Folder in File Explorer
- Properties Alt+Enter

Solution Explorer

Search Solution Explorer (Ctrl+)

Solution 'DatabaseFirst' (1 of 1 project)

- DatabaseFirst
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Add New Scaffolded Item

Installed

CommonController

MVC Controller - Empty

MVC Controller with read/write actions

MVC Controller with views, using Entity Framework

API Controller - Empty

API Controller with read/write actions

API Controller with actions, using Entity Framework

MVC Controller with views, using Entity Framework

by Microsoft
v1.0.0.0

An MVC controller with actions and Razor views to create, read, update, delete, and list entities from an Entity Framework data context.

Id: MvcControllerWithContextScaffolder

[Click here to go online and find more scaffolding extensions.](#)

Add

Cancel

Solution Explorer

Search Solution Explorer (Ctrl+Q)

Solution 'DatabaseFirst' (1 of 1 projects)

DatabaseFirst

Connected Services

Dependencies

Properties

wwwroot

Controllers

Models

DatabaseNameContext.cs

DeviceProperties.cs

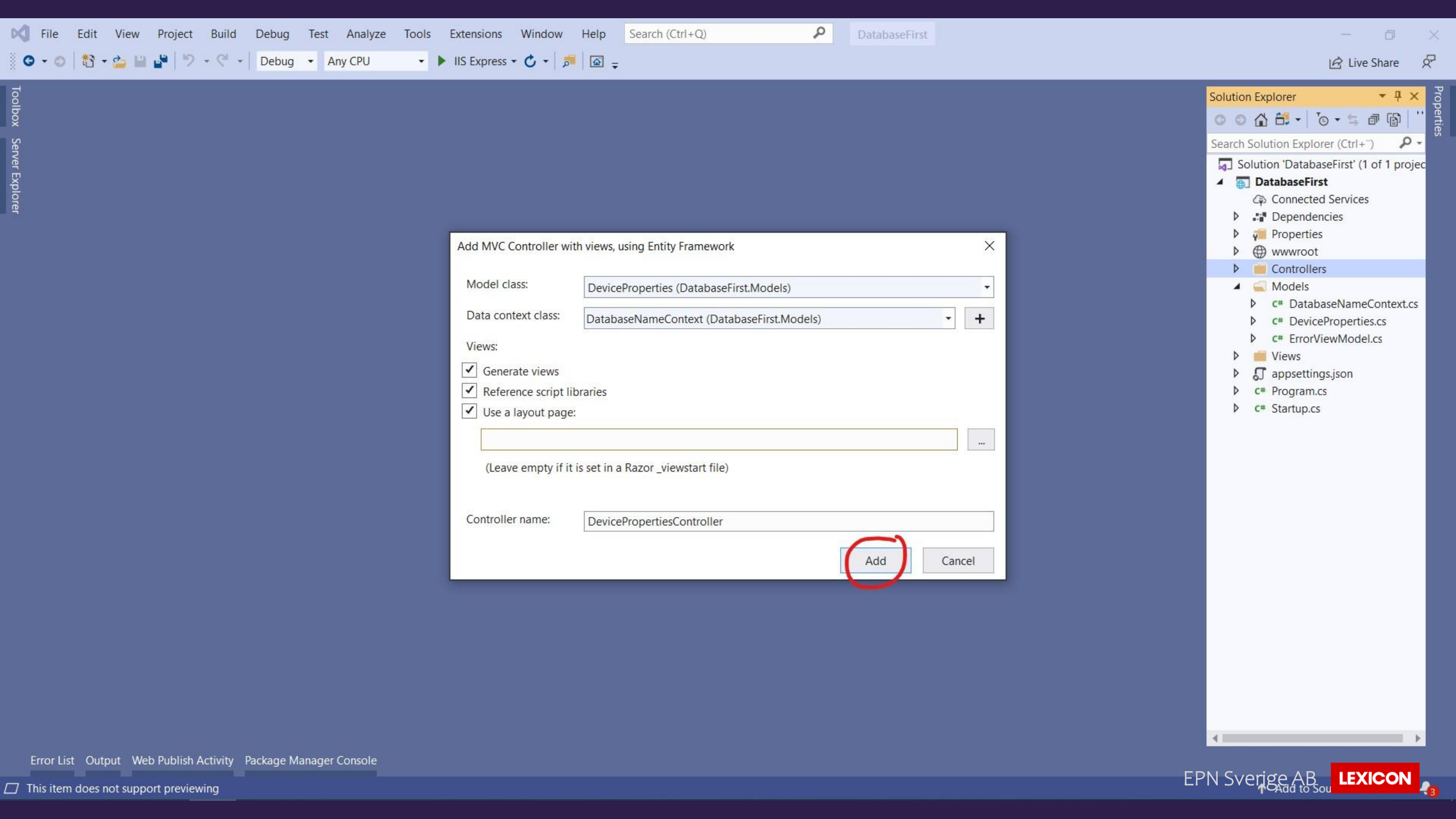
ErrorViewModel.cs

Views

appsettings.json

Program.cs

Startup.cs



Add MVC Controller with views, using Entity Framework

Model class: DeviceProperties (DatabaseFirst.Models)

Data context class: DatabaseNameContext (DatabaseFirst.Models) +

Views:

☒ Generate views

☒ Reference script libraries

☒ Use a layout page:

...

(Leave empty if it is set in a Razor _viewstart file)

Controller name: DevicePropertiesController

Add Cancel

Solution Explorer

Search Solution Explorer (Ctrl+)

Solution 'DatabaseFirst' (1 of 1 project)

- DatabaseFirst
 - Connected Services
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 - Models
 - DatabaseNameContext.cs
 - DeviceProperties.cs
 - ErrorViewModel.cs
 - Views
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 - Program.cs
 - Startup.cs

Visual Studio interface showing the code for `DevicePropertiesController.cs` in the `DatabaseFirst` project.

Code Snippet:

```
1 using System;
2 using System.Collections.Generic;
3 using System.Linq;
4 using System.Threading.Tasks;
5 using Microsoft.AspNetCore.Mvc;
6 using Microsoft.AspNetCore.Mvc.Rendering;
7 using Microsoft.EntityFrameworkCore;
8 using DatabaseFirst.Models;
9
10 namespace DatabaseFirst.Controllers
11 {
12     1 reference
13     public class DevicePropertiesController : Controller
14     {
15         private readonly DatabaseNameContext _context;
16
17         0 references
18         public DevicePropertiesController(DatabaseNameContext context)
19         {
20             _context = context;
21         }
22
23         // GET: DeviceProperties
24         3 references
25         public async Task<IActionResult> Index()
26         {
27             return View(await _context.DeviceProperties.ToListAsync());
28         }
29
30         // GET: DeviceProperties/Details/5
31         0 references
32         public async Task<IActionResult> Details(string id)
33         {
34             if (id == null)
35             {
36                 // ...
37             }
38         }
39     }
40 }
```