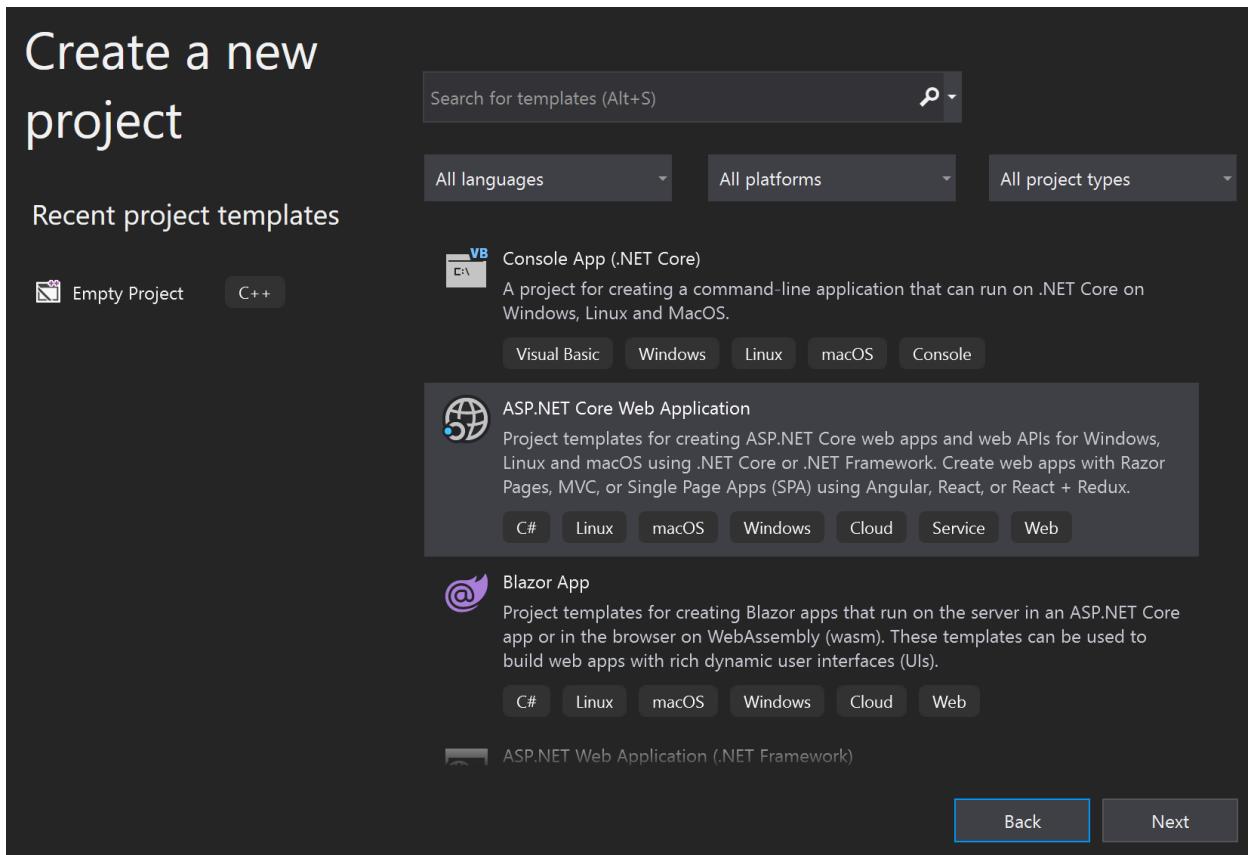


HƯỚNG DẪN XÂY DỰNG WEBSITE THƯƠNG MẠI ĐIỆN TỬ ĐƠN GIẢN

(Từ Empty Project)

Bước 1. Tạo project



Configure your new project

ASP.NET Core Web Application

C#

Linux

macOS

Windows

Cloud

Service

Web

Project name

WebApp

Location

D:\aspnetcore\ecommerce\



Solution name

WebApp

Place solution and project in the same directory

Back

Create

Create a new ASP.NET Core web application

.NET Core

ASP.NET Core 5.0



ASP.NET Core Empty

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



ASP.NET Core Web 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.



ASP.NET Core Web App

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



ASP.NET Core Web App (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.



ASP.NET Core with Angular

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



ASP.NET Core with React.js

Authentication

No Authentication

Change

Advanced

Configure for HTTPS

Enable Docker Support
(Requires [Docker Desktop](#))

Linux

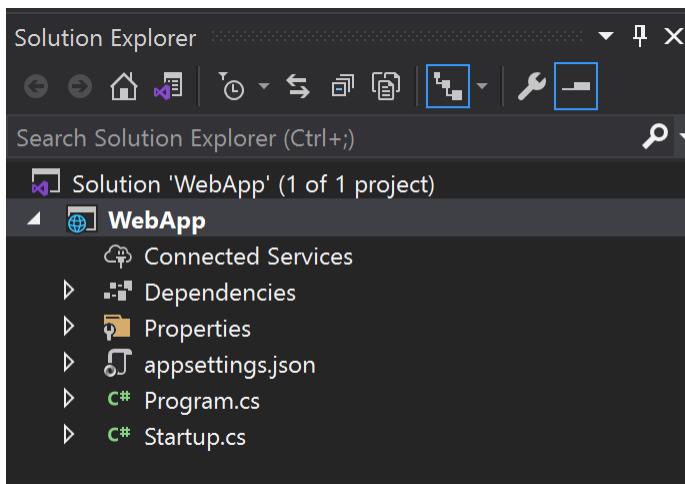
Author: Microsoft

Source: Templates 5.0.0

[Get additional project templates](#)

Back

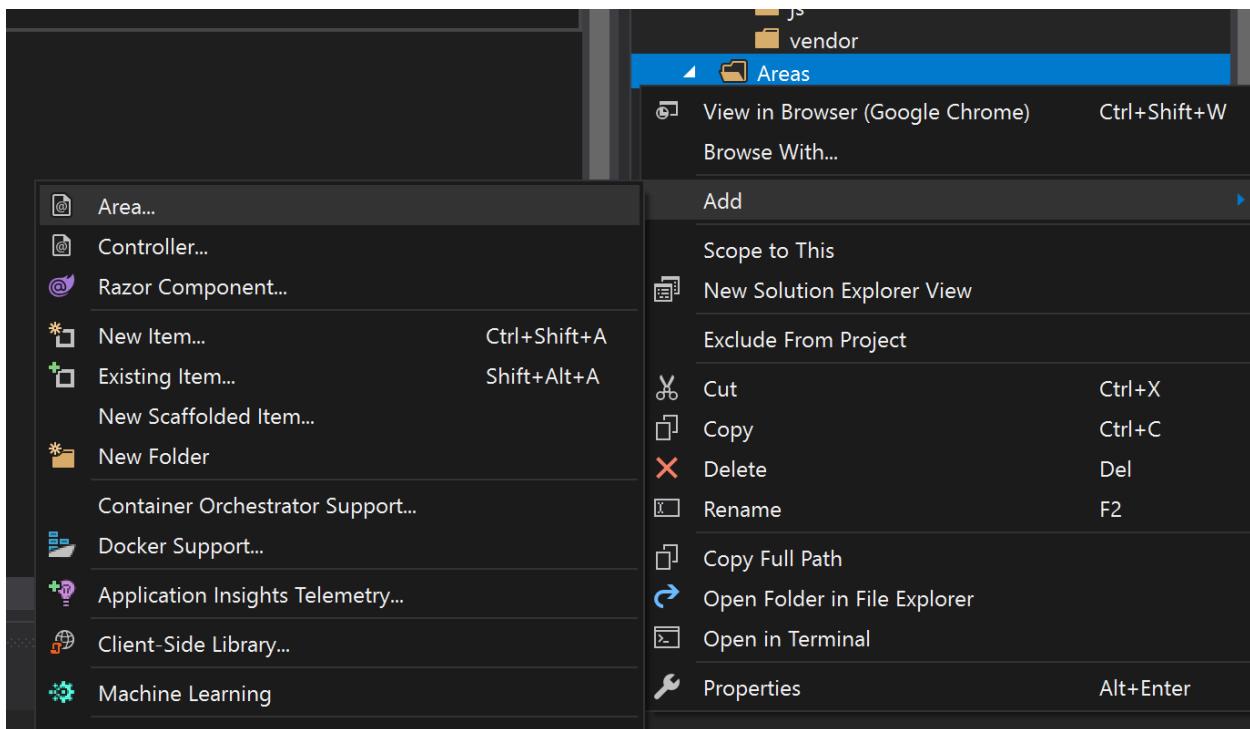
Create



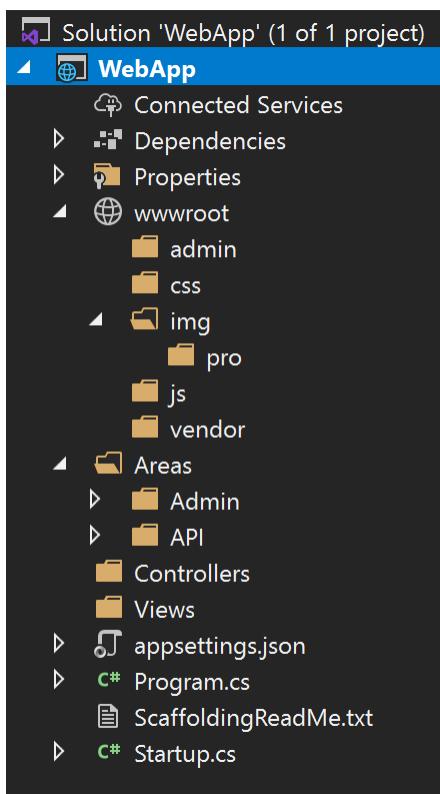
Bước 2. Tạo các thư mục cần thiết

STT	Tên thư mục	Ý nghĩa
1	wwwroot	Chứa các thư mục và tập tin hình ảnh, css, js của website
2	Controllers	Chứa các Controller phân hệ người dùng
3	Views	Chứa các Views phân hệ người dùng
4	wwwroot\vendor	Chứa thư viện front-end như bootstrap, jquery, awesome, aos, ...
5	wwwroot\css	Chứa tập tin css các trang web người dùng như layout.css (css cho layout), index.css (css riêng cho trang index), list.css (css riêng cho trang danh sách), ...
6	wwwroot\js	Chứa tập tin js các trang web người dùng như script.js (js chung cho các trang), index.js (js riêng cho trang index), ...
7	wwwroot\admin\	Chứa css và js của trang Admin

8	wwwroot\img	Chứa các thư mục hình ảnh website và các hình ảnh sử dụng chung trong website như logo, favicon, ...
9	wwwroot\pro	Chứa hình các sản phẩm
10	Areas	Chứa các Area của website
11	Areas\Admin	Chứa các Controllers, Views, Models của phân hệ quản trị và các lớp tương tác CSDL
12	Areas\Admin\Data	Chứa các lớp kế thừa DbContext để tương tác CSDL
13	Areas\Admin\Controller	Chứa các controllers xử lý trong phân hệ quản trị
14	Areas\Admin\Views	Chứa các giao diện trong phân hệ quản trị
15	Areas\Admin\Models	Chứa các lớp Models tương tác với CSDL
16	Areas\API	Chứa các API của ứng dụng (Gọi Ajax/API cho các hệ thống khác hay trên thiết bị khác)
17	Areas\API\Controllers	Chứa các controllers xử lý yêu cầu tương ứng với các action khác nhau



Thêm Area



Bước 3. Tạo các lớp model: SanPham, LoaiSP sử dụng kiểm tra dữ liệu dựa trên namespace DataAnnotation

```
public class LoaiSP
{
    [Key]
    0 references
    public int MaLoai { get; set; }
    [Display(Name = "Tên loại sản phẩm")]
    [StringLength(50, MinimumLength = 3)]
    [Required]
    0 references
    public string TenLoai { get; set; }
    0 references
    public bool TrangThai { get; set; }
}
```

```
public class SanPham
{
    [Key]
    0 references
    public int MaSP { get; set; }

    [RegularExpression(@"^([0-9]{3}-[0-9]{3}-[0-9]{3})$")]
    [Display(Name = "Số Serial Number")]
    [Required]
    [StringLength(20)]
    [Column(TypeName = "varchar(20)")]
    0 references
    public string SN { get; set; }

    [StringLength(100, MinimumLength = 5)]
    [Required]
    [Column(TypeName = "nvarchar(100)")]
    0 references
    public string TenSP { get; set; }

    [DataType(DataType.Date)]
    [DisplayFormat(DataFormatString = "{0:dd-MM-yyyy}", ApplyFormatInEditMode = true)]
    0 references
    public DateTime NgaySX { get; set; }
}
```

```
[StringLength(255)]
[Column(TypeName = "nvarchar(255)")]
0 references
public string Hinh { get; set; }

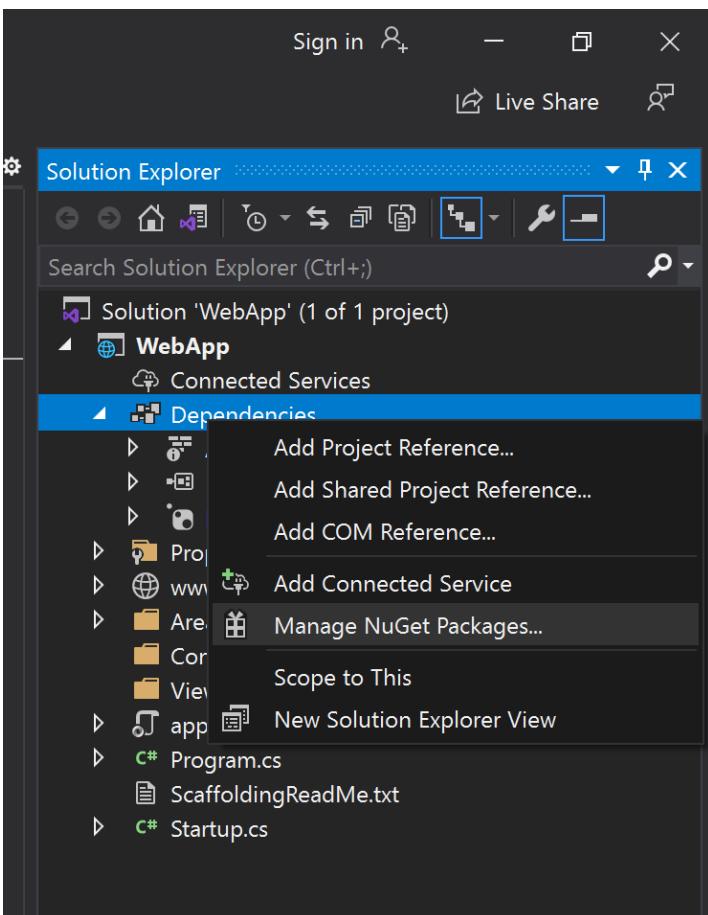
0 references
public string MoTa { get; set; }

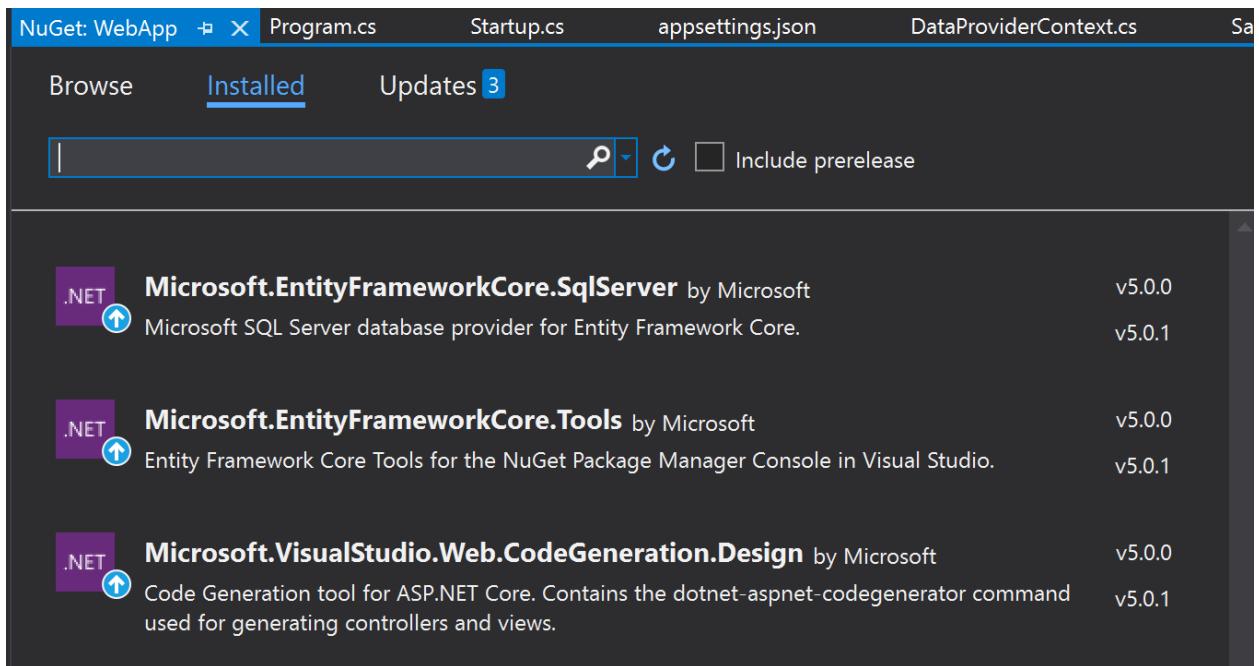
[Range(1000,1000000)]
[DataType(DataType.Currency)]
[Column(TypeName = "decimal(18, 2)")]
0 references
public decimal Gia { get; set; }

0 references
public int TrangThai { get; set; }
[ForeignKey("LoaiSP")]
0 references
public LoaiSP LSP { get; set; }

}
```

Bước 4. Cài đặt các thư viện cần thiết



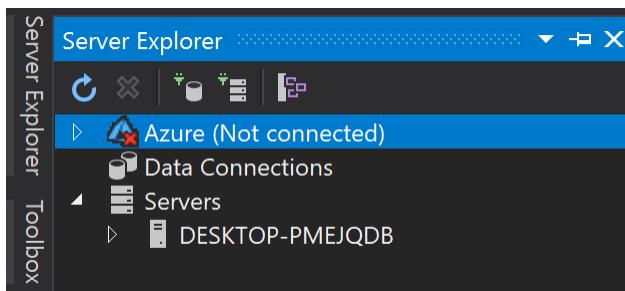


Bước 5. Tạo class DataProviderContext kế thừa từ DbContext (đặt trong thư mục Data thuộc Area Admin)

The screenshot shows the Visual Studio code editor with the tab bar at the top containing 'DataProviderContext.cs*', 'HomeController.cs', and 'Startup.cs'. The main area displays the 'DataProviderContext.cs' file. The code defines a class 'DataProviderContext' that inherits from 'DbContext'. It includes properties for 'SanPham' and 'LoaiSP' using Entity Framework's DbSet<T>.

```
1  using Microsoft.EntityFrameworkCore;
2  using System;
3  using System.Collections.Generic;
4  using System.Linq;
5  using System.Threading.Tasks;
6  using WebApp.Areas.Admin.Models;
7
8  namespace WebApp.Areas.Admin.Data
9  {
10    public class DataProviderContext : DbContext
11    {
12      public DataProviderContext(
13        DbContextOptions<DataProviderContext> options)
14        : base(options)
15      {
16      }
17      public DbSet<SanPham> SanPham { get; set; }
18      public DbSet<LoaiSP> LoaiSP { get; set; }
19    }
20  }
```

- Tạo chuỗi kết nối CSDL: Sử dụng Server Explorer trong Visual Studio để connect và copy chuỗi kết nối



Choose Data Source

[?](#) [X](#)

Data source:

- Microsoft Access Database File
- Microsoft ODBC Data Source
- Microsoft SQL Server**
- Microsoft SQL Server Database File
- Oracle Database
- <other>

Description

Use this selection to connect to Microsoft SQL Server 2005 or above, or to Microsoft SQL Azure using the .NET Framework Data Provider for SQL Server.

Data provider:

- .NET Framework Data Provider for SQL Server

 Always use this selection[Continue](#)[Cancel](#)

Add Connection

[?](#)

Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source:

Microsoft SQL Server (SqlClient)

[Change...](#)

Server name:

.

[Refresh](#)

Log on to the server

Authentication: Windows Authentication

User name:

Password:

 Save my password

Connect to a database

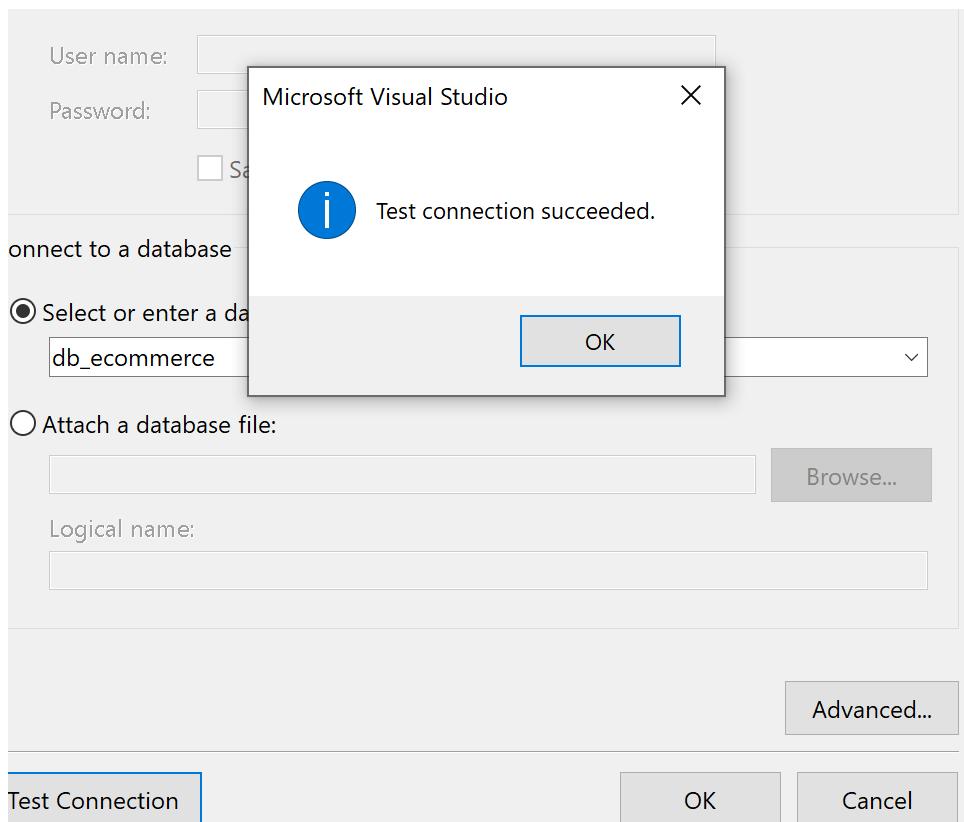
 Select or enter a database name:

db_ecommerce

 Attach a database file:[Browse...](#)

Logical name:

[Advanced...](#)[Test Connection](#)[OK](#)[Cancel](#)



Add Connection

?



Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source:

Microsoft SQL Server (SqlClient)

Server name:

.

Log on to the s

Authentication

User name

Password:

Connect to a d

 Select or e

db_ecom

 Attach a d

Logical na

Advanced Properties



Change...

Refresh

Browse...

Persist Security Info	False
TrustServerCertificate	False
User ID	
Source	
AttachDbFilename	
Context Connection	False
Data Source	.
Failover Partner	
Initial Catalog	db_ecommerce
MultiSubnetFailover	False
TransparentNetworkIF	True
User Instance	False

Data Source

Indicates the name of the data source to connect to.

initial Catalog=db_ecommerce;Integrated Security=True

OK

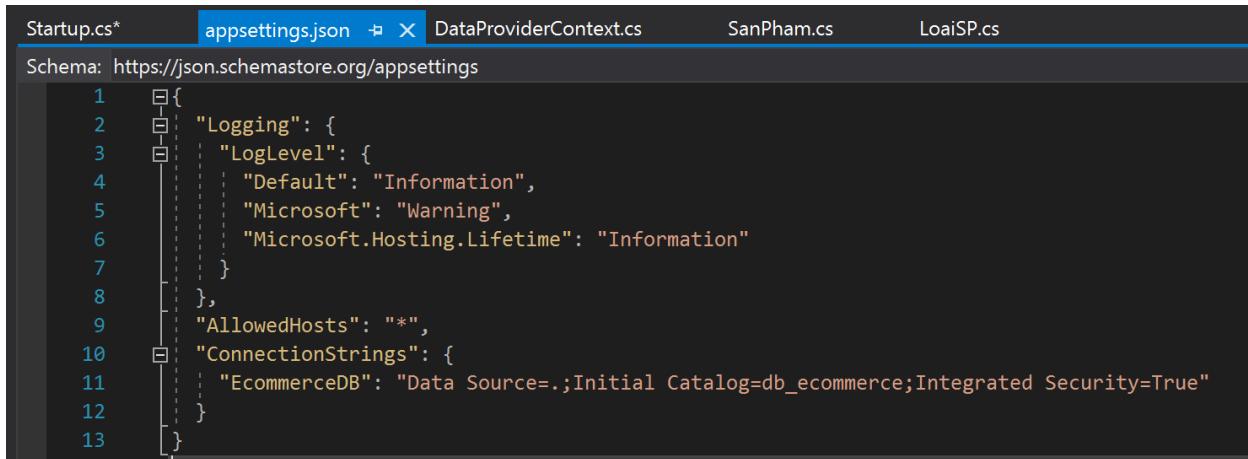
Cancel

Advanced...

Test Connection

OK

Cancel

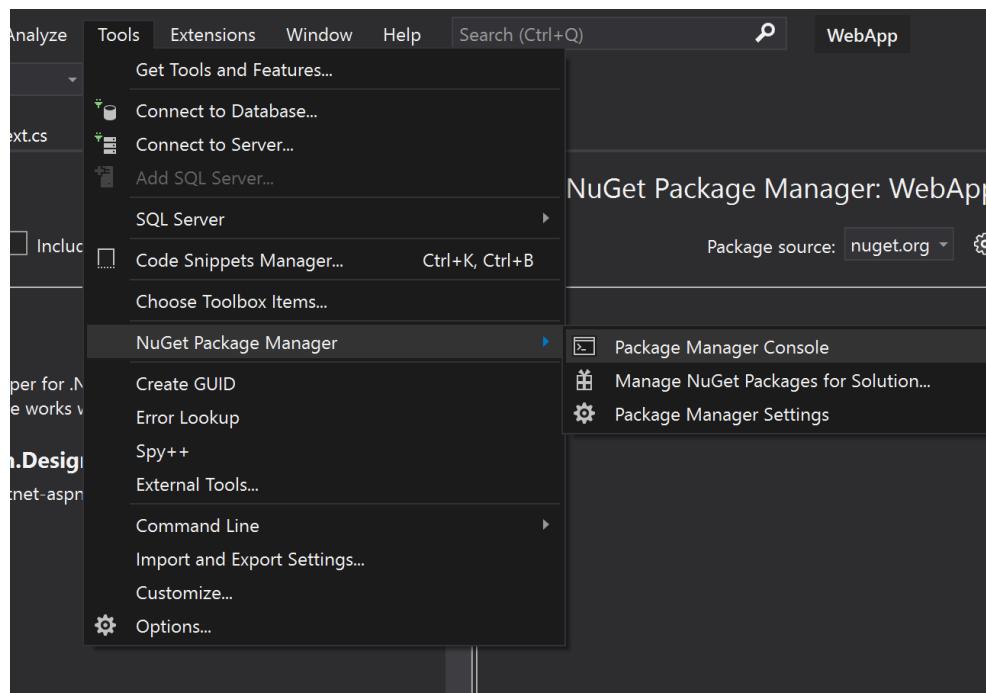


```
Schema: https://json.schemastore.org/appsettings
1  {
2    "Logging": {
3      "LogLevel": {
4        "Default": "Information",
5        "Microsoft": "Warning",
6        "Microsoft.Hosting.Lifetime": "Information"
7      }
8    },
9    "AllowedHosts": "*",
10   "ConnectionStrings": {
11     "EcommerceDB": "Data Source=.;Initial Catalog=db_ecommerce;Integrated Security=True"
12   }
13 }
```

- Xây dựng lớp Startup để sử dụng các service dựa trên cơ chế Dependency Injection (DI).
 - o Thêm phương thức khởi tạo với DI configuration để có thể truy xuất đến tập tin appSetting lấy câu kết nối dữ liệu

```
2 references
public IConfiguration Configuration { get; }
0 references
public Startup(IConfiguration configuration)
{
    Configuration = configuration;
}
// This method gets called by the runtime. Use this method to add services to the container.
// For more information on how to configure your application, visit https://go.microsoft.com/fwlink/?LinkID=398940
0 references
public void ConfigureServices(IServiceCollection services)
{
    services.AddDbContext<DataProviderContext>(options => options.UseSqlServer(Configuration.GetConnectionString
        ("EcommerceDB")));
}
```

- o Tạo CSDL, cập nhật CSDL với cơ chế Migration (Code First)



```
Package Manager Console
Package source: All | Default project: WebApp
include dependencies which are governed by additional licenses. Follow the package source (feed) URL to determine any dependencies.

Package Manager Console Host Version 5.8.0.6930

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

PM> add-migration create|
```

```
PM> add-migration create
Build started...
Build succeeded.
To undo this action, use Remove-Migration.
PM> |
```

```
▲ Migrations
  ▲ C# 20201211063458_create.cs
    ▷ C# 20201211063458_create.Designer.cs
    ▷ C# DataProviderContextModelSnapshot.cs
```

```
PM> update-database
Build started...
Build succeeded.
Done.
```

The screenshot shows the SQL Server Object Explorer interface. On the left, the database structure is outlined:

- db_ecommerce** (selected)
 - Database Diagrams
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo._EFMigrationsHistory**
 - dbo.LoaiSP**
 - dbo.SanPham**

On the right, the details for the **dbo.LoaiSP** table are expanded, showing its columns:

- dbo.LoaiSP**
 - Columns
 - MaLoai (PK, int, not null)
 - TenLoai (nvarchar(50), not null)
 - TrangThai (bit, not null)

Below, the **dbo.SanPham** table is shown with its columns:

- dbo.SanPham**
 - Columns
 - MaSP (PK, int, not null)
 - SN (varchar(20), not null)
 - TenSP (nvarchar(100), not null)
 - NgaySX (datetime2(7), not null)
 - Hinh (nvarchar(255), null)
 - MoTa (nvarchar(max), null)
 - Gia (decimal(18,2), not null)
 - TrangThai (int, not null)
 - LoaiSP (FK, int, null)

Lưu ý:

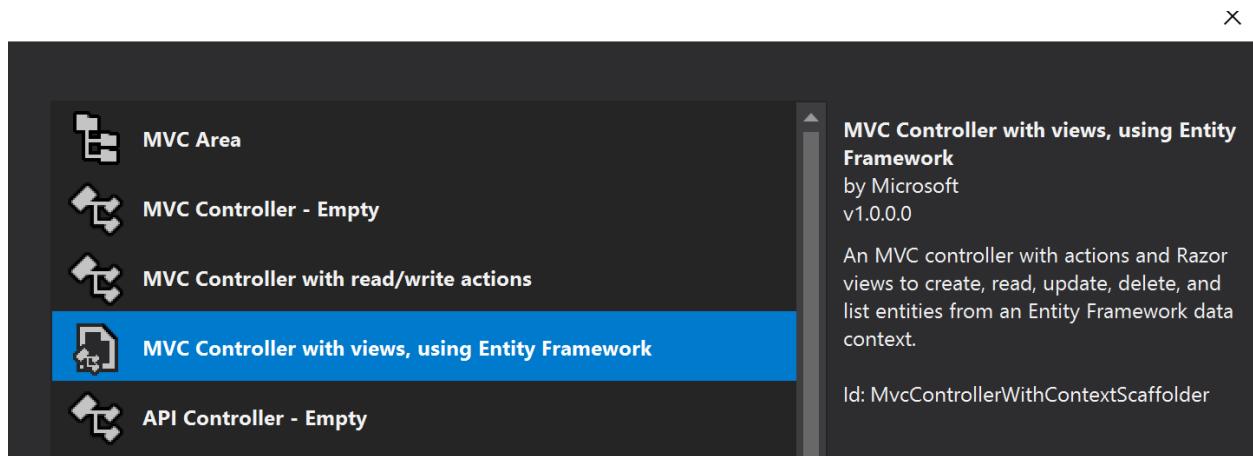
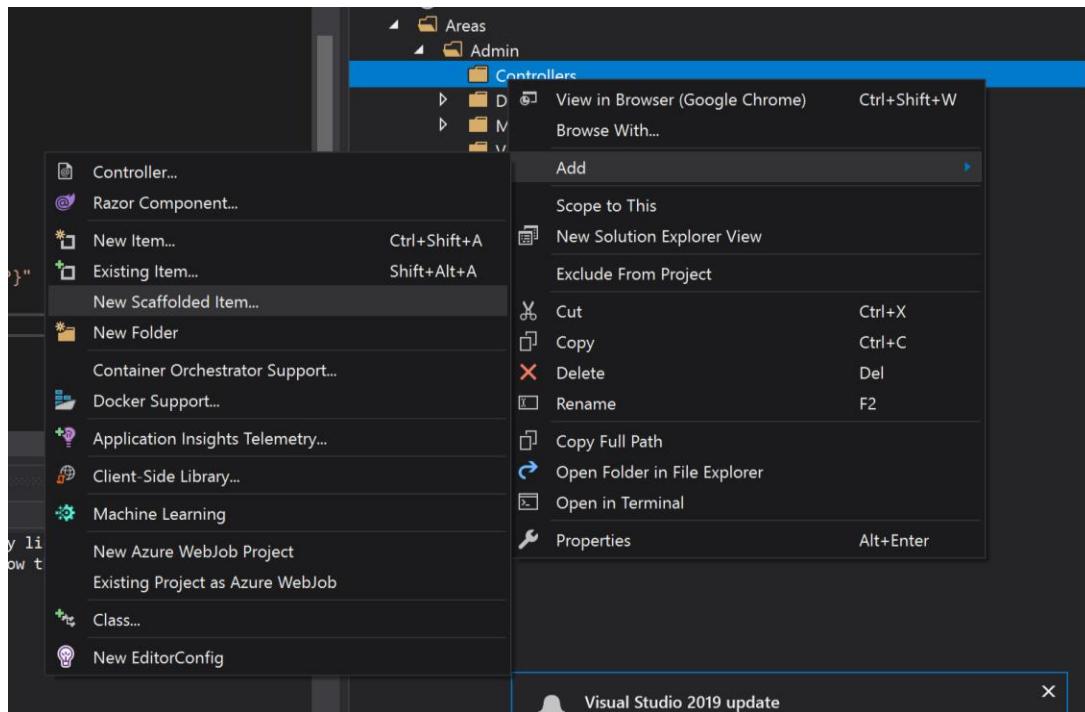
Nếu chưa cài đặt gói `Microsoft.EntityFrameworkCore.Tools` có thể xảy ra lỗi sau

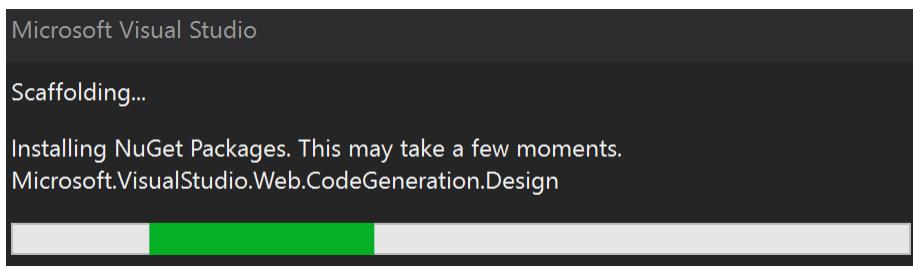
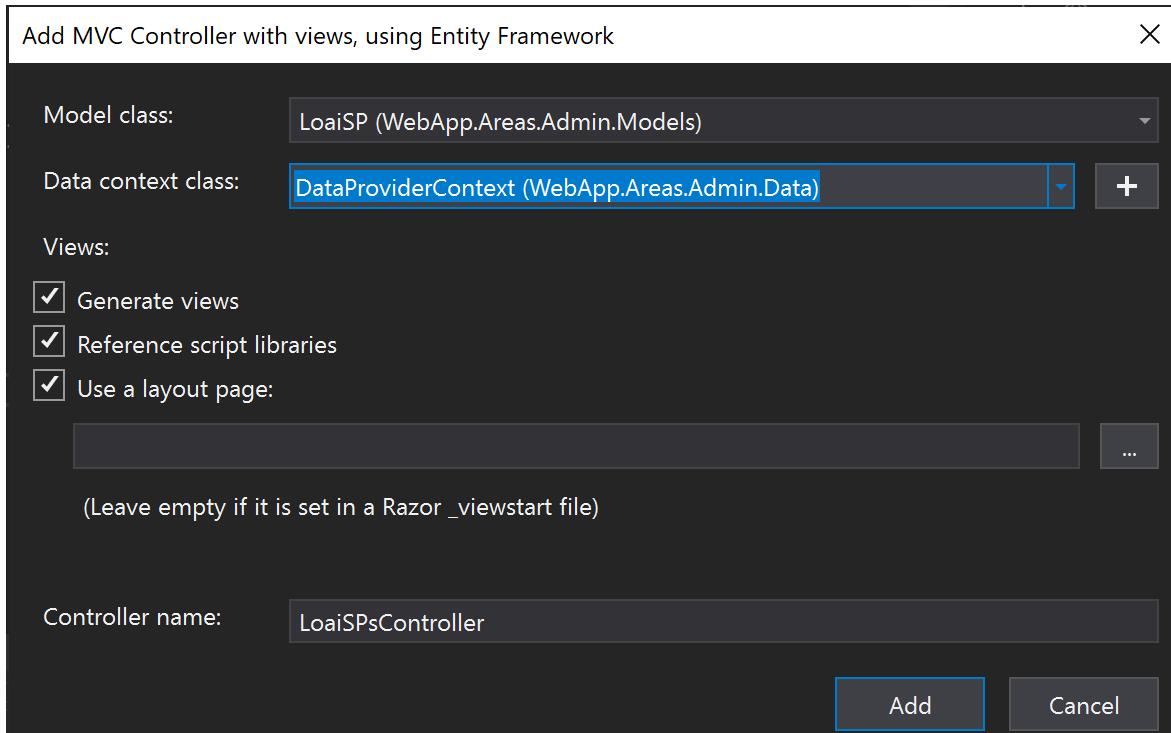
```
Package Manager Console
Package source: All | Default project: WebApp
PM> add-migration create
add-migration : The term 'add-migration' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ add-migration create
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (add-migration:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException
PM>
```

Nếu bảng chưa có khóa (chưa có thuộc tính khóa trong class model hoặc quên để tách vực thuộc tính là public thì có thể xảy ra lỗi sau

```
Package Manager Console
Package source: All | Default project: WebApp
at Microsoft.EntityFrameworkCore.Design.OperationExecutor.OperationBase.<>c__DisplayClass3_0`1.<Execute>b__0()
at Microsoft.EntityFrameworkCore.Design.OperationExecutor.OperationBase.Execute(Action action)
The entity type 'LoaiSP' requires a primary key to be defined. If you intended to use a keyless entity type, call
'HasNoKey' in 'OnModelCreating'. For more information on keyless entity types, see https://go.microsoft.com/fwlink/?linkid=2141943.
PM>
```

Bước 6. Sử dụng Scaffolded để tạo ra các Controllers với các Views tương ứng (trong Admin area)





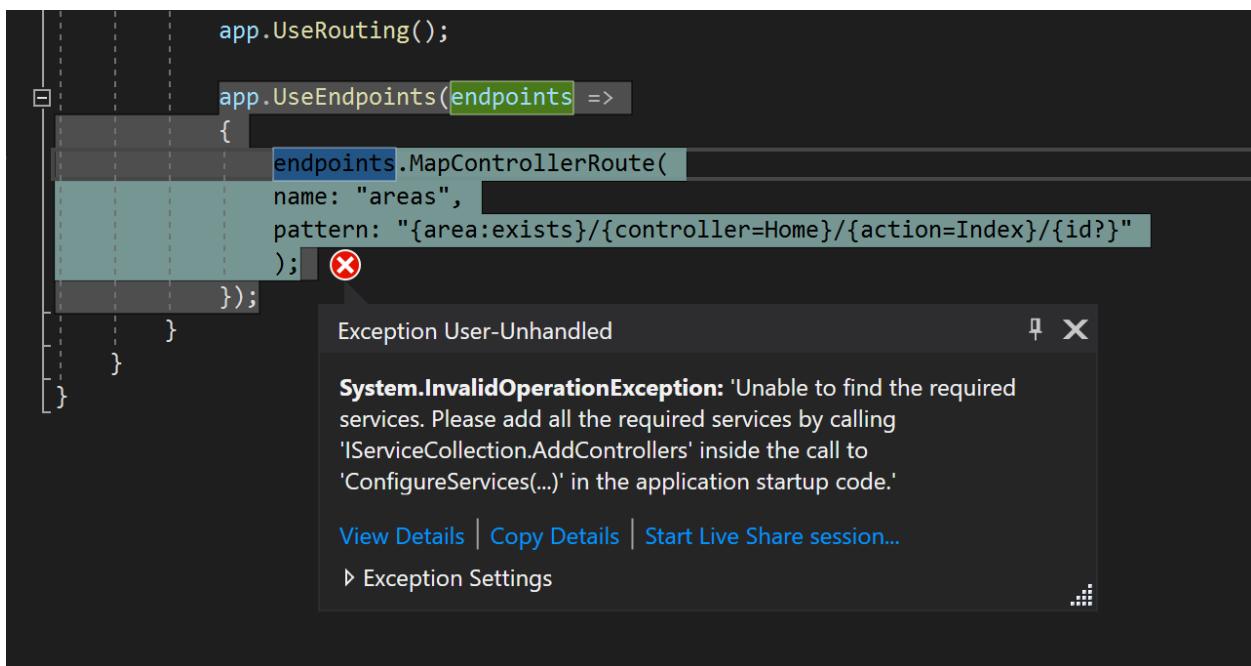
Bước 7. Routing chạy thử ứng dụng

The screenshot shows a code editor with the tab 'ScaffoldingReadMe.txt' selected. The content of the file is as follows:

```
1 Scaffolding has generated all the files and added the required dependencies.
2
3 However the Application's Startup code may require additional changes for things
4 Add the following code to the Configure method in your Application's Startup clas
5
6     app.UseEndpoints(endpoints =>
7     {
8         endpoints.MapControllerRoute(
9             name : "areas",
10            pattern : "{area:exists}/{controller=Home}/{action=Index}/{id?}"
11        );
12    });
13
```

```
34     app.UseDeveloperExceptionPage();
35 }
36 
37 app.UseRouting();
38 
39 app.UseEndpoints(endpoints =>
40 {
41     endpoints.MapControllerRoute(
42         name: "areas",
43         pattern: "{area:exists}/{controller=Home}/{action=Index}/{id?}");
44 });
45 
46 );
47 }
48 }
49 }
```

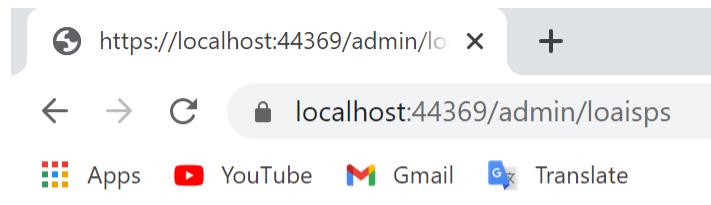
Lỗi khi chưa thêm dịch vụ MVC (service được cung cấp thông qua cơ chế DI)



Thêm dịch vụ MVC

```
public void ConfigureServices(IServiceCollection services)
{
    services.AddControllersWithViews();
    services.AddDbContext<DataProviderContext>(options => options.UseSqlServer
        (Configuration.GetConnectionString("EcommerceDB")));
}
```

Chạy với liên kết sau



Index

Create New

Tên loại sản phẩm TrangThai

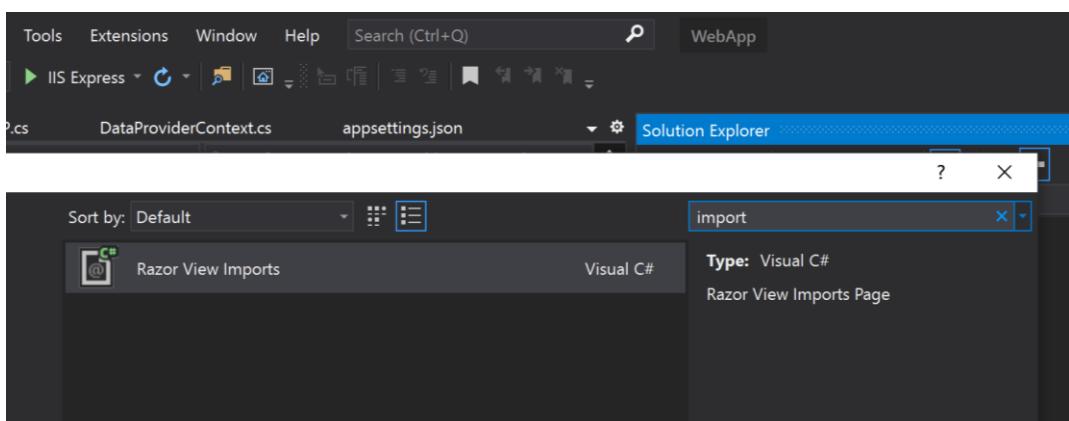
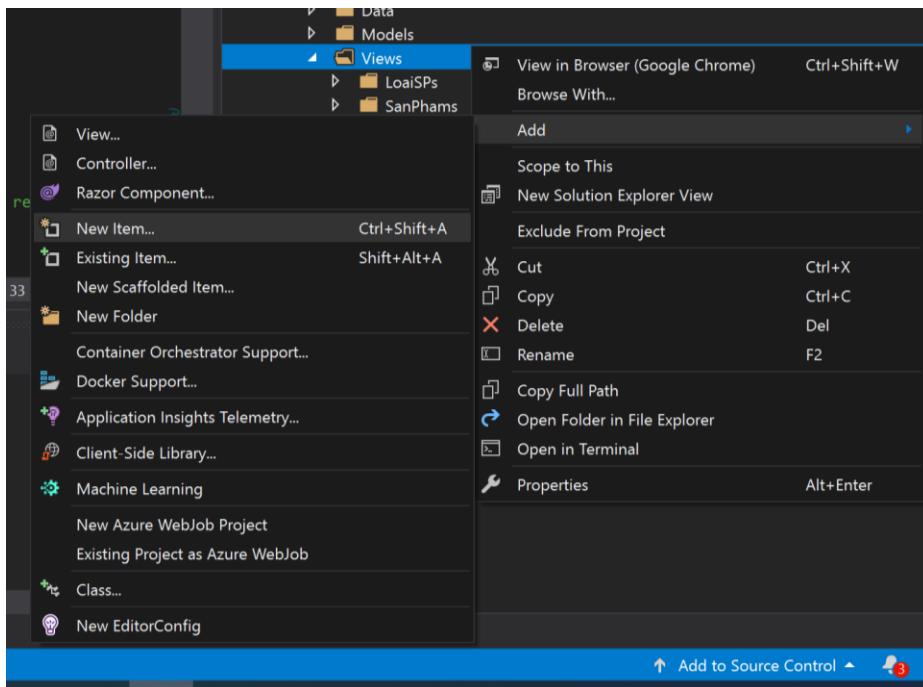
Có thể chỉnh sửa để chạy mặc định là area Admin và controller LoaiSPs

```
app.UseEndpoints(endpoints =>
{
    endpoints.MapControllerRoute(
        name: "areas",
        pattern: "{area:exists}/{controller=Home}/{action=Index}/{id?}")
    );
    endpoints.MapControllerRoute(
        name: "areaAdminRoute",
        pattern: "{area=Admin}/{controller=LoaiSPs}/{action=Index}/{id?}");
});
```

Ở bước này các liên kết tạo Loại sản phẩm hay sản phẩm đều chưa được kích hoạt vì chưa sử dụng TagHelper

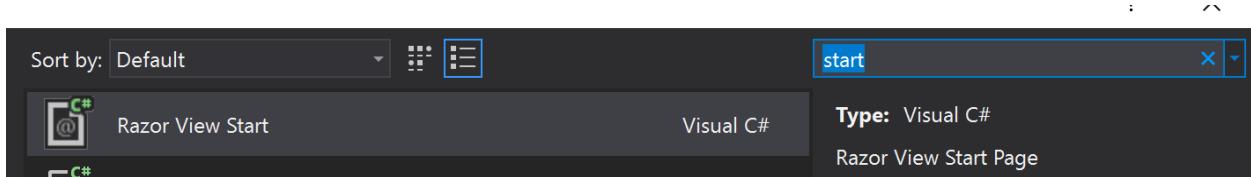
Bước 8. Tạo layout cho phân hệ Admin của Website

- Tạo thư mục Shared chứa các thành phần của Layout
- Tạo tập tin ViewImport để khai báo các thư viện cần xài chung cho Views,
ViewStart là tập tin sẽ chạy đầu tiên trước khi tạo các Views

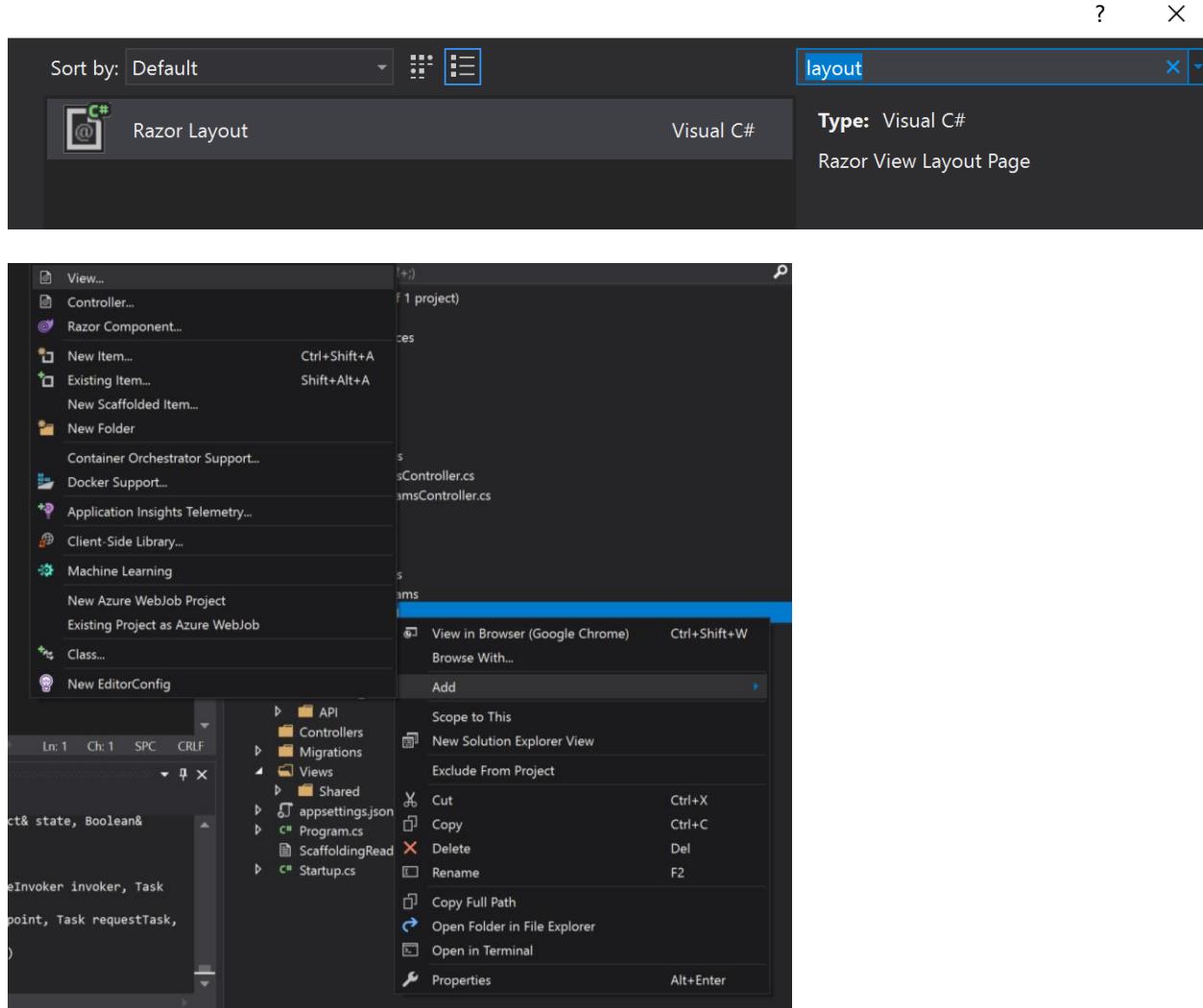


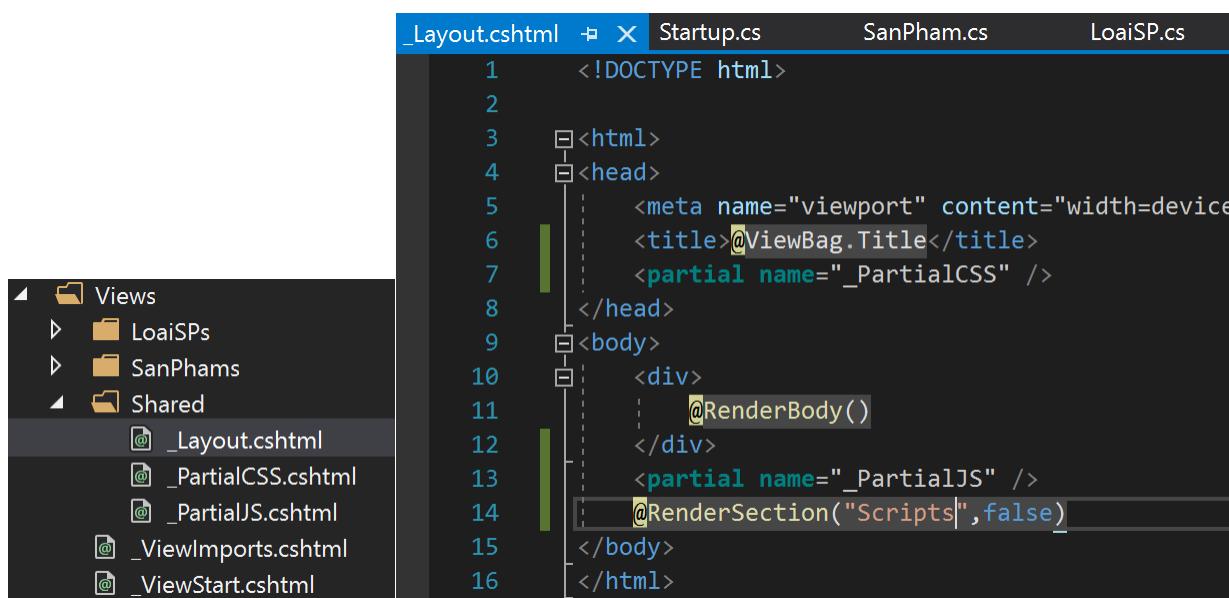
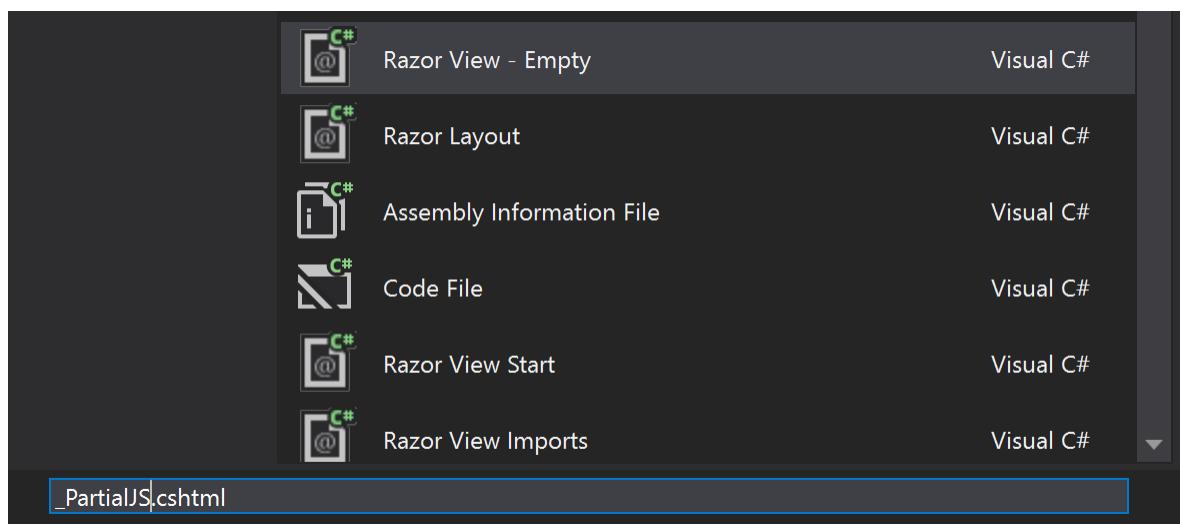
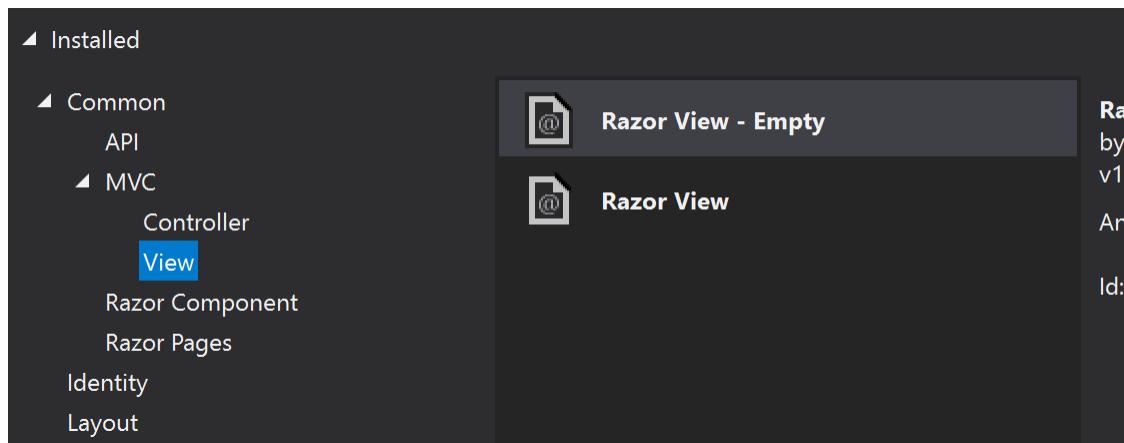
A screenshot of the Visual Studio code editor. The file '_ViewImports.cshtml' is open. The code editor shows the following line:

```
1  @addTagHelper *, Microsoft.AspNetCore.Mvc.TagHelpers
```



- Có thể sử dụng Layout, Partial View (trong thư mục Shared) cho các trang, thêm các thư viện css, js để sử dụng (bootstrap, jquery). Để sử dụng các tập tin trong wwwroot cần cấu hình trong lớp Startup.





The screenshot shows the Visual Studio interface with the wwwroot folder structure on the left. The _PartialCSS.cshtml file is open in the editor, displaying the following code:

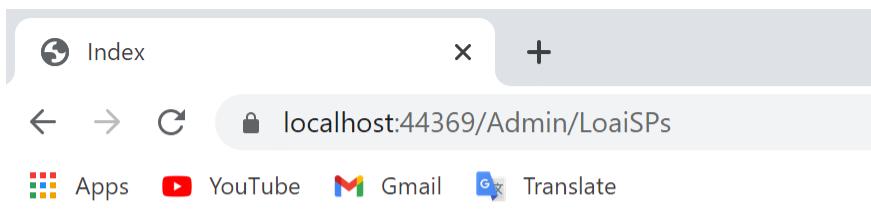
```
@*  
For more information on enabling MVC for empty projects, visit https:  
LinkID=397860  
*@  
@{  
}  
<link href="~/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet" />
```

The screenshot shows the _PartialJS.cshtml file open in the editor, displaying the following code:

```
1  @*  
2      For more information on enabling MVC for empty projects, visit  
3      https://go.microsoft.com/fwlink/?LinkID=397860  
4  *@  
5  @{  
6  }  
7  <script src="~/vendor/jquery/jquery.min.js"></script>  
8  <script src="~/vendor/bootstrap/js/bootstrap.min.js"></script>
```

The screenshot shows the Startup.cs file open in the editor, displaying the following code:

```
32     public void Configure(IApplicationBuilder app)  
33     {  
34         if (env.IsDevelopment())  
35         {  
36             app.UseDeveloperExceptionPage();  
37         }  
38         app.UseStaticFiles();  
39         app.UseRouting();
```



Index

[Create New](#)

Tên loại sản phẩm

TrangThai

Create

localhost:44369/Admin/LoaiSPs/Create

Apps YouTube Gmail Translate

Create

LoaiSP

Tên loại sản phẩm

TrangThai

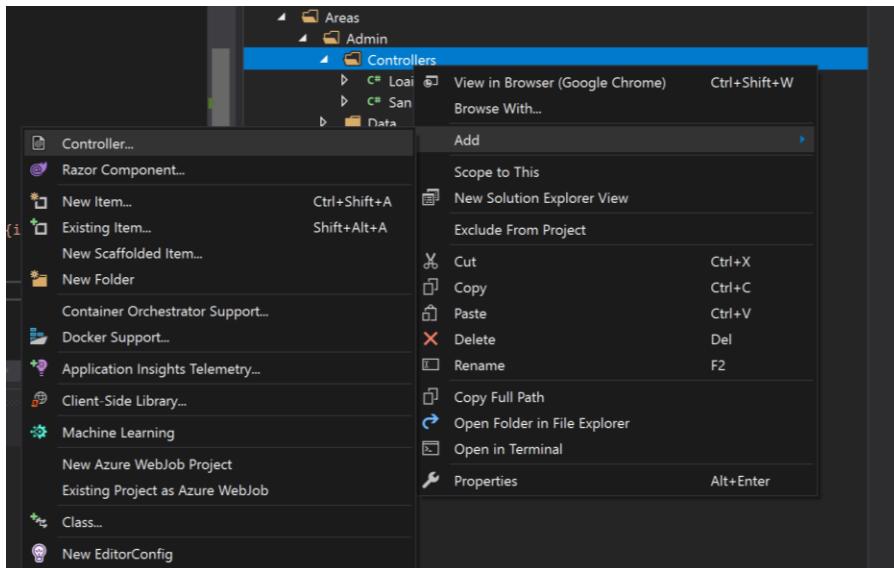
Create

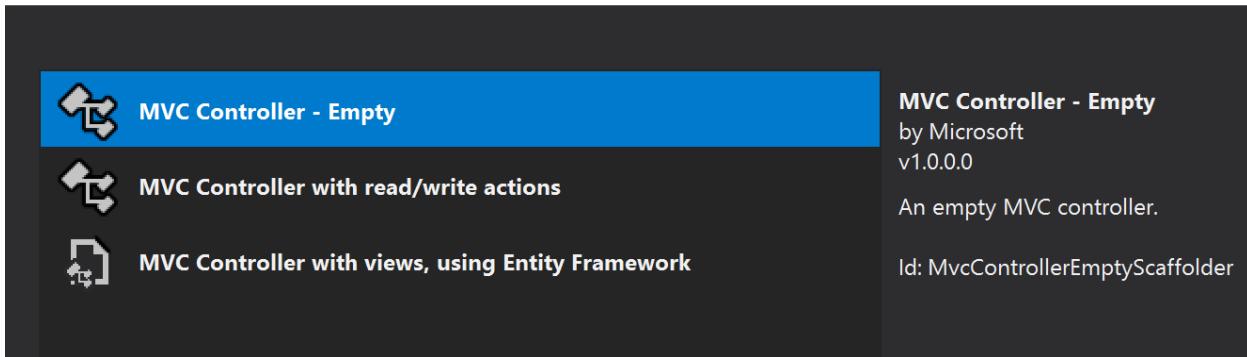
[Back to List](#)

Lưu ý: Nếu thiết kế giao diện trước thì bước này có thể tách biệt các tập tin.

Bước 9. Tạo trang chủ admin

Tạo Empty Controller và đặt tên HomeController, lưu ý thêm từ khoá [Area("Admin")] ở trên Controller.





```

Admin
└ Controllers
    └ HomeController.cs
    └ LoaiSPsController.cs
    └ SanPhamsController.cs
└ Data
└ Models
└ Views
    └ Home
        └ Index.cshtml
    └ LoaiSPs
    └ SanPhams
    └ Shared
        └ _ViewImports.cshtml
        └ _ViewStart.cshtml
}
app.UseEndpoints(endpoints =>
{
    endpoints.MapControllerRoute(
        name: "areas",
        pattern: "{area:exists}/{controller=Home}/{action=Index}/{id?}");
    endpoints.MapControllerRoute(
        name: "areaAdminRoute",
        pattern: "{area=Admin}/{controller=Home}/{action=Index}/{id?}");
});

```

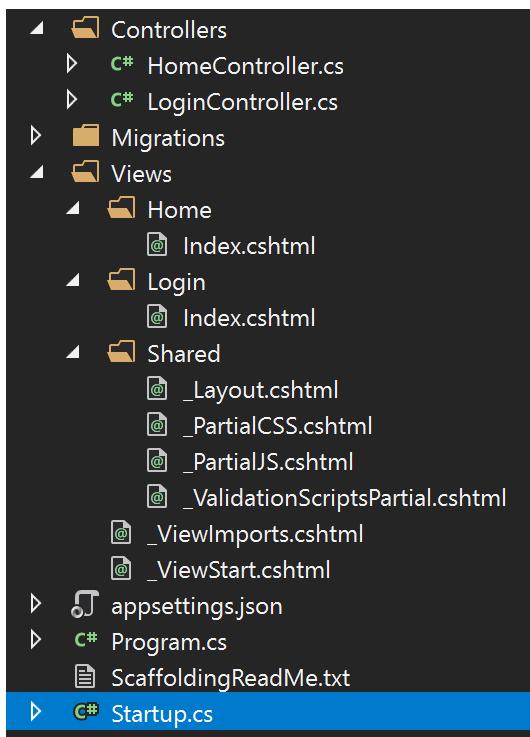
```

namespace WebApp.Areas.Admin.Controllers
{
    [Area("Admin")]
    public class HomeController : Controller
    {
        public IActionResult Index()
        {
            return View();
        }
    }
}
```

Index.cshtml	HomeController.cs
1 @*	For more information LinkID=397860
2	
3 *@	
4 @{	
5 }	
6 <h1> Trang chủ Amin</h1>	

Bước 10. Tạo trang chủ người dùng

Tạo cấu trúc tập tin, lưu ý trang Layout có thêm Section CSS và JS để các trang có thể định nghĩa thêm phần CSS của riêng trang và phần JS của riêng trang. Chính sửa Route trong lớp StartUp



```
_Layout.cshtml  ✎ X  Index.cshtml
1      <!DOCTYPE html>
2
3      <html>
4          <head>
5              <meta name="viewport" content="width=device-width" />
6              <title>@ViewBag.Title</title>
7              <partial name="_PartialCSS" />
8              @RenderSection("CSS", false)
9          </head>
10         <body>
11             <div>
12                 @RenderBody()
13             </div>
14             <partial name="_PartialJS" />
15             @RenderSection("Scripts", false)
16             @RenderSection("JS", false)
17         </body>
18     </html>
```

The screenshot shows a code editor with two tabs: 'Index.cshtml' and 'LoginController.cs'. The 'Index.cshtml' tab is active, displaying the following code:

```
1  @*
2      For more information on enabling I
3          LinkID=397860
4  @{
5  }
6  <h1>Trang chủ Website</h1>
```

```
app.UseEndpoints(endpoints =>
{
    endpoints.MapControllerRoute(
        name: "default",
        pattern: "{controller=Home}/{action=Index}/{id?}");
    endpoints.MapControllerRoute(
        name: "areas",
        pattern: "{area:exists}/{controller=Home}/{action=Index}/{id?}")
    //endpoints.MapControllerRoute(
    //    name: "areaAdminRoute",
    //    pattern: "{area=Admin}/{controller=Home}/{action=Index}/{id?}");

});
```

Tạo View Index cho Controller Login

The screenshot shows a code editor with the 'Index.cshtml' tab active, displaying the following code:

```
1  @*
2      For more information on enabling I
3          LinkID=397860
4  @{
5  }
286
287  <div class="wrapper fadeInDown">
288  <div id="formContent">...</div>
308  </div>
```

```
@section CSS{
    <style>
        html {
            background-color: #56baed;
        }
        body {
            font-family: "Poppins", sans-serif;
            height: 100vh;
        }
    </style>
}
```

```
a {
  color: #92badd;
  display: inline-block;
  text-decoration: none;
  font-weight: 400;
}

h2 {
  text-align: center;
  font-size: 16px;
  font-weight: 600;
  text-transform: uppercase;
  display: inline-block;
  margin: 40px 8px 10px 8px;
  color: #cccccc;
}
/* STRUCTURE */
.wrapper {
  display: flex;
  align-items: center;
  flex-direction: column;
  justify-content: center;
  width: 100%;
  min-height: 100%;
}

#formContent {
  -webkit-border-radius: 10px 10px 10px 10px;
  border-radius: 10px 10px 10px 10px;
  background: #fff;
  padding: 30px;
  width: 90%;
  max-width: 500px;
  position: relative;
  padding: 0px;
  -webkit-box-shadow: 0 30px 60px 0 rgba(0,0,0,0.3);
  box-shadow: 0 30px 60px 0 rgba(0,0,0,0.3);
  text-align: center;
}

#formFooter {
  background-color: #f6f6f6;
  border-top: 1px solid #dce8f1;
  padding: 25px;
  text-align: center;
  -webkit-border-radius: 0 0 10px 10px;
  border-radius: 0 0 10px 10px;
}

/* TABS */

h2.inactive {
  color: #cccccc;
}

h2.active {
  color: #0d0d0d;
  border-bottom: 2px solid #5fbae9;
```

```
}

/* FORM TYPOGRAPHY */

input[type=button], input[type=submit], input[type=reset] {
    background-color: #56baed;
    border: none;
    color: white;
    padding: 15px 80px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    text-transform: uppercase;
    font-size: 13px;
    -webkit-box-shadow: 0 10px 30px 0 rgba(95,186,233,0.4);
    box-shadow: 0 10px 30px 0 rgba(95,186,233,0.4);
    -webkit-border-radius: 5px 5px 5px 5px;
    border-radius: 5px 5px 5px 5px;
    margin: 5px 20px 40px 20px;
    -webkit-transition: all 0.3s ease-in-out;
    -moz-transition: all 0.3s ease-in-out;
    -ms-transition: all 0.3s ease-in-out;
    -o-transition: all 0.3s ease-in-out;
    transition: all 0.3s ease-in-out;
}

input[type=button]:hover, input[type=submit]:hover, input[type=reset]:hover {
    background-color: #39ace7;
}

input[type=button]:active, input[type=submit]:active,
input[type=reset]:active {
    -moz-transform: scale(0.95);
    -webkit-transform: scale(0.95);
    -o-transform: scale(0.95);
    -ms-transform: scale(0.95);
    transform: scale(0.95);
}

input[type=text] {
    background-color: #f6f6f6;
    border: none;
    color: #0d0d0d;
    padding: 15px 15px;
    text-align: center;
    text-decoration: none;
    display: inline-block;
    font-size: 16px;
    margin: 15px;
    width: 85%;
    border: 2px solid #f6f6f6;
    -webkit-transition: all 0.5s ease-in-out;
    -moz-transition: all 0.5s ease-in-out;
    -ms-transition: all 0.5s ease-in-out;
    -o-transition: all 0.5s ease-in-out;
    transition: all 0.5s ease-in-out;
    -webkit-border-radius: 5px 5px 5px 5px;
```

```
        border-radius: 5px 5px 5px 5px;
    }

    input[type=text]:focus {
        background-color: #fff;
        border-bottom: 2px solid #5fbae9;
    }

    input[type=text]:placeholder {
        color: #cccccc;
    }

/* ANIMATIONS */

/* Simple CSS3 Fade-in-down Animation */
.fadeInDown {
    -webkit-animation-name: fadeInDown;
    animation-name: fadeInDown;
    -webkit-animation-duration: 1s;
    animation-duration: 1s;
    -webkit-animation-fill-mode: both;
    animation-fill-mode: both;
}

@@-webkit-keyframes fadeInDown {
    0% {
        opacity: 0;
        -webkit-transform: translate3d(0, -100%, 0);
        transform: translate3d(0, -100%, 0);
    }

    100% {
        opacity: 1;
        -webkit-transform: none;
        transform: none;
    }
}

@@keyframes fadeInDown {
    0% {
        opacity: 0;
        -webkit-transform: translate3d(0, -100%, 0);
        transform: translate3d(0, -100%, 0);
    }

    100% {
        opacity: 1;
        -webkit-transform: none;
        transform: none;
    }
}

/* Simple CSS3 Fade-in Animation */
@@-webkit-keyframes fadeIn {
    from {
        opacity: 0;
```

```
        }

        to {
            opacity: 1;
        }
    }

@@-moz-keyframes fadeIn {
    from {
        opacity: 0;
    }

    to {
        opacity: 1;
    }
}

@@keyframes fadeIn {
    from {
        opacity: 0;
    }

    to {
        opacity: 1;
    }
}

.fadeIn {
    opacity: 0;
    -webkit-animation: fadeIn ease-in 1;
    -moz-animation: fadeIn ease-in 1;
    animation: fadeIn ease-in 1;
    -webkit-animation-fill-mode: forwards;
    -moz-animation-fill-mode: forwards;
    animation-fill-mode: forwards;
    -webkit-animation-duration: 1s;
    -moz-animation-duration: 1s;
    animation-duration: 1s;
}

.fadeIn.first {
    -webkit-animation-delay: 0.4s;
    -moz-animation-delay: 0.4s;
    animation-delay: 0.4s;
}

.fadeIn.second {
    -webkit-animation-delay: 0.6s;
    -moz-animation-delay: 0.6s;
    animation-delay: 0.6s;
}

.fadeIn.third {
    -webkit-animation-delay: 0.8s;
    -moz-animation-delay: 0.8s;
    animation-delay: 0.8s;
}
```

```

        .fadeIn.fourth {
            -webkit-animation-delay: 1s;
            -moz-animation-delay: 1s;
            animation-delay: 1s;
        }

/* Simple CSS3 Fade-in Animation */
.underlineHover:after {
    display: block;
    left: 0;
    bottom: -10px;
    width: 0;
    height: 2px;
    background-color: #56baed;
    content: "";
    transition: width 0.2s;
}

.underlineHover:hover {
    color: #0d0d0d;
}

.underlineHover:hover:after {
    width: 100%;
}

/* OTHERS */

*:focus {
    outline: none;
}

#icon {
    width: 60%;
}

```

}

```

</style>
}

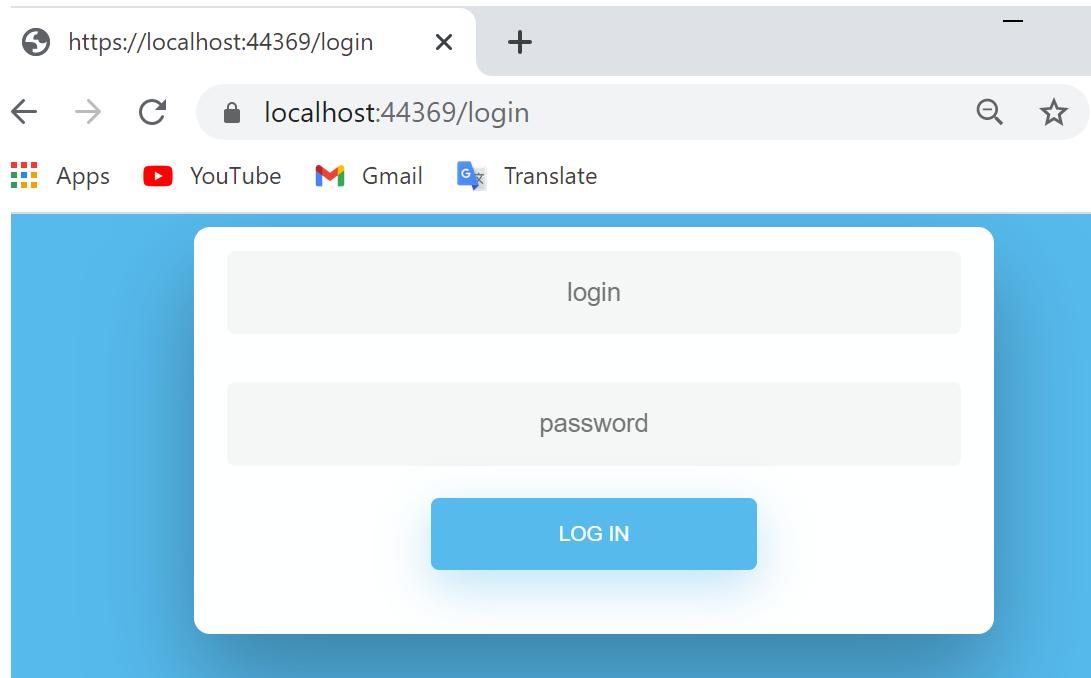
<div class="wrapper fadeInDown">
    <div id="formContent">
        <!-- Tabs Titles -->
        <!-- Icon -->
        <div class="fadeIn first">
            @**@
        </div>

        <!-- Login Form -->
        <form>
            <input type="text" id="login" class="fadeIn second" name="login"
placeholder="login">
            <input type="text" id="password" class="fadeIn third" name="login"
placeholder="password">
            <input type="submit" class="fadeIn fourth" value="Log In">
        </form>

        <!-- Remind Password -->

```

```
<div id="formFooter">
    <a class="underlineHover" href="#">Forgot Password?</a>
</div>
</div>
```



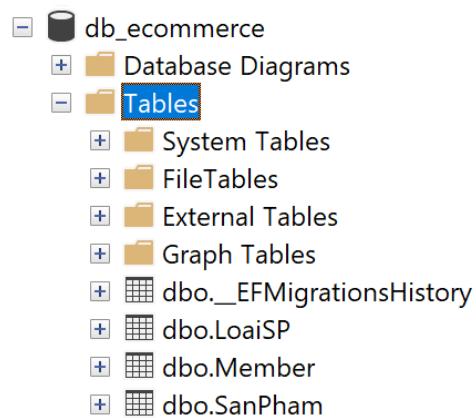
Bước 11. Cập nhật bảng tài khoản, thêm dữ liệu

Tạo thêm model class là Member.cs (Trong area Admin)

```
namespace WebApp.Areas.Admin.Models
{
    public class Member
    {
        [Key]
        [Column(TypeName = "varchar(50)")]
        public string Username { set; get; }
        [Column(TypeName = "varchar(255)")]
        public string Password { set; get; }
        public int Rule { set; get; }
    }
}
```

```
DataProviderContext.cs ✘ X Member.cs
WebApp WebApp.Areas.Admin.DataProvider
7
8     namespace WebApp.Areas.Admin.Data
9     {
10         public class DataProviderContext: DbContext
11         {
12             public DataProviderContext(
13                 DbContextOptions<DataProviderContext> options)
14                 : base(options)
15             {
16             }
17             public DbSet<SanPham> SanPham { get; set; }
18             public DbSet<LoaiSP> LoaiSP { get; set; }
19             public DbSet<Member> Member { get; set; }
20         }
21     }
```

```
Package source: .\m
PM> Add-Migration AddTable_Member
Build started...
Build succeeded.
To undo this action, use Remove-Migration.
PM> update-database
Build started...
Build succeeded.
Done.
PM>
```



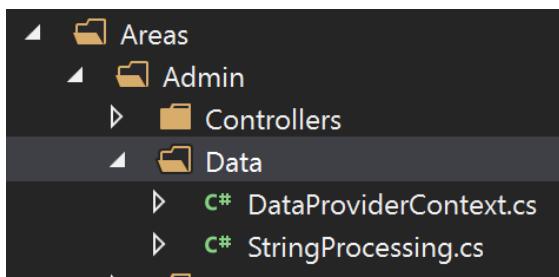
Thêm 2 tài khoản trực tiếp vào CSDL với Rule là 0 (Admin) và 1 (Người dùng), sử dụng chuỗi MD5 để lưu trữ Password (có thể sử dụng trang md5.cz)

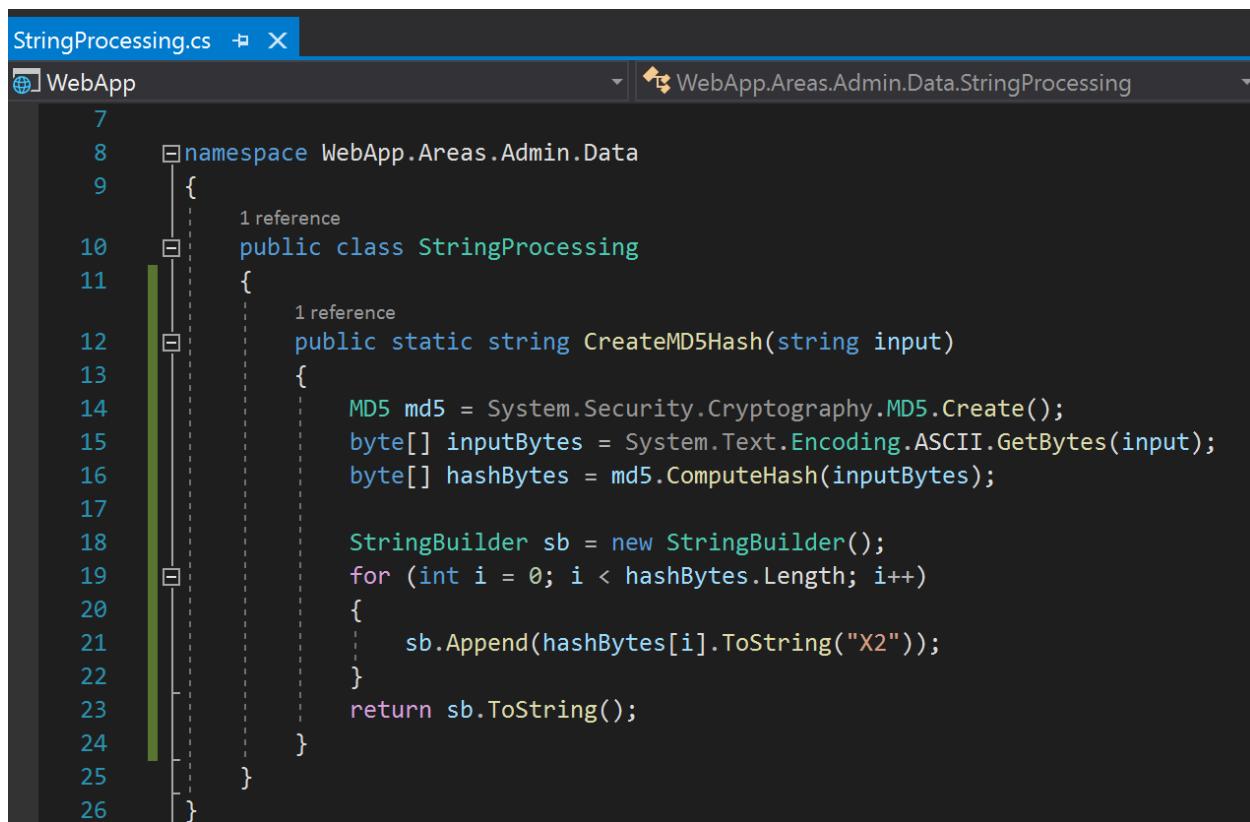
The screenshot shows the context menu for the 'dbo.Member' table in SQL Server Management Studio. The 'Edit Top 200 Rows' option is selected. To the right, a preview window titled 'DESKTOP-PMEJQDB...rce - dbo.Member' displays the table structure with three rows:

	Username	Password	Rule
	admin	21232f297a57a5a743894a0e4a801fc3	0
*	customer1	ffbc4675f864e0e9aab8bdf7a0437010	1
	NULL	NULL	NULL

Bước 12. Xây dựng Class StringProcessing (nằm trong Admin.Data)

để xử lý chuỗi, phương thức mã hóa MD5



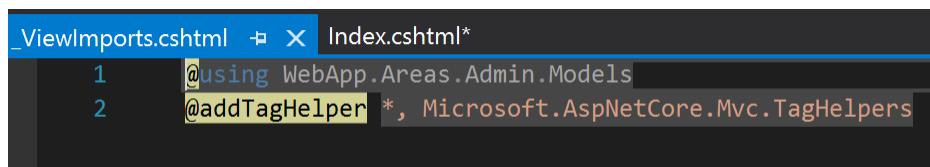


```
StringProcessing.cs  ✎ X
WebApp          WebApp.Areas.Admin.Data.StringProcessing
7
8     namespace WebApp.Areas.Admin.Data
9     {
10         public class StringProcessing
11         {
12             public static string CreateMD5Hash(string input)
13             {
14                 MD5 md5 = System.Security.Cryptography.MD5.Create();
15                 byte[] inputBytes = System.Text.Encoding.ASCII.GetBytes(input);
16                 byte[] hashBytes = md5.ComputeHash(inputBytes);
17
18                 StringBuilder sb = new StringBuilder();
19                 for (int i = 0; i < hashBytes.Length; i++)
20                 {
21                     sb.Append(hashBytes[i].ToString("X2"));
22                 }
23                 return sb.ToString();
24             }
25         }
26     }
```

Bước 13. Chỉnh sửa lại View Index của Controller Login và xử lý Controller Admin để đăng nhập (Chưa lưu Session)

Thêm Model Member để thông qua TagHelper liên kết dữ liệu từ View qua Controller để xử lý.

Khai báo trong ViewImport (trang người dùng)



```
_ViewImports.cshtml  ✎ X  Index.cshtml*
1  @using WebApp.Areas.Admin.Models
2  @addTagHelper *, Microsoft.AspNetCore.Mvc.TagHelpers
```

Chỉnh sửa View Index của Login

```

Index.cshtml ✘ X
1  @@
2      For more information on enabling MVC for empty projects, visit https://go.microsoft.com/fwlink/?LinkID=397704
3  @@
4  @model Member
5  @section CSS{
6      <style>...</style>
7  }
88
289  <div class="wrapper fadeInDown">
290      <div id="formContent">
291          <!-- Tabs Titles -->
292          <!-- Icon -->
293          <div class="fadeIn first">
294              @**@
295          </div>
296
297          <!-- Login Form -->
298          <form method="post">
299              <input type="text" asp-for="Username" class="fadeIn second" placeholder="Tên đăng nhập">
300              <input type="text" asp-for="Password" class="fadeIn third" placeholder="Mật khẩu">
301              <input type="submit" class="fadeIn fourth" value="Log In" asp-action="Login">
302          </form>
303      </div>
304  </div>

```

Xử lý action Login (LoginController): Thêm DI _context thông qua phương thức khởi tạo của LoginController, thêm phương thức xử lý action

```

public class LoginController : Controller
{
    private readonly DataProviderContext _context;

    public LoginController(DataProviderContext context)
    {
        _context = context;
    }
}

```

```

[HttpPost]
[ValidateAntiForgeryToken]
public IActionResult Login([Bind("Username, Password")] Member member)
{
    var r = _context.Member.Where(m => (m.Username == member.Username && m.Password ==
        StringProcessing.CreateMD5Hash(member.Password))).ToList();

    if (r.Count==0)
    {
        return View("Index");
    }
    if (r[0].Role==0)
    {
        var url = Url.RouteUrl("areas", new { controller = "Home", action = "Index", area = "Admin" });
        return Redirect(url);
    }
    return RedirectToAction("Index", "Home");
}

```

Chạy thử với 2 thành viên vừa tạo ở trên

Bước 14. Cập nhật, sử dụng Session lưu tài khoản đăng nhập

Khai báo sử dụng Session tại class StartUp: thời gian chờ để hết hạn là 5 phút (300s)

```
public void ConfigureServices(IServiceCollection services)
{
    services.AddDistributedMemoryCache();

    services.AddSession(options =>
    {
        options.IdleTimeout = TimeSpan.FromSeconds(300);
        options.Cookie.HttpOnly = true;
        options.Cookie.IsEssential = true;
    });
}
```

```
0 references
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    if (env.IsDevelopment())
    {
        app.UseDeveloperExceptionPage();
    }
    app.UseStaticFiles();
    app.UseRouting();
    app.UseSession();
    app.UseEndpoints(endpoints =>
    {
        endpoints.MapControllerRoute(
            name: "default",
            pattern: "{controller=Home}/{action=Index}/{id?}");
        endpoints.MapRazorPages();
    });
}
```

Sử dụng **using Microsoft.AspNetCore.Http;** để truy xuất gán và lấy Session thông qua đối tượng Json

Gán Session tại trang Login

```
(LoginController.cs) [Startup.cs]
WebApp.Controllers.LoginController _context
26     [HttpPost]
27     [ValidateAntiForgeryToken]
28     public IActionResult Login([Bind("Username, Password")] Member member)
29     {
30         var r = _context.Member.Where(m => (m.Username == member.Username && m.Password == StringProcessing.CreateMD5Hash(member.Password))).ToList();
31         if (r.Count==0)
32         {
33             return View("Index");
34         }
35         var str = JsonConvert.SerializeObject(member);
36         HttpContext.Session.SetString("user", str);
37         if (r[0].Rule==0)
38         {
39             var url = Url.RouteUrl("areas", new { controller = "Home", action = "Index", area = "Admin" });
40             return Redirect(url);
41         }
42         return RedirectToAction("Index", "Home");
43     }
44 }
```

Xử lý lấy Session ở Trang chủ phân hệ Admin (Trong Area Admin)

_ViewImport trong Views thuộc Area Admin

```
_ViewImports.cshtml [Startup.cs]
1 @using WebApp.Areas.Admin.Models
2 @addTagHelper *, Microsoft.AspNetCore.Mvc.TagHelpers
```

Index View của HomeController thuộc Area Admin

```
Index.cshtml [Startup.cs]
1 @*
2     For more information on enabling MVC for empty projects,
2     go.microsoft.com/fwlink/?LinkID=397860
3     *@
4     @model Member
5     @{
6     }
7     <h1> Trang chủ Admin</h1>
8     <p>user name:@Model.Username</p>
```

Xử lý trong HomeController thuộc Area Admin

HomeController.cs X Startup.cs

WebApp

WebApp.Areas.Admin.Controllers.HomeController.cs

Index()

```
10
11     namespace WebApp.Areas.Admin.Controllers
12     {
13         [Area("Admin")]
14         0 references
15         public class HomeController : Controller
16         {
17             0 references
18             public IActionResult Index()
19             {
20                 JObject us = JObject.Parse(HttpContext.Session.GetString("user"));
21                 Member mem=... new Member();
22                 mem.Username = us.SelectToken("Username").ToString();
23                 mem.Password = us.SelectToken("Password").ToString();
24                 mem.Rule = Int32.Parse(us.SelectToken("Rule").ToString());
25                 return View(mem);
26             }
}
```