PRACTICE #06: WEB PROGRAMMING
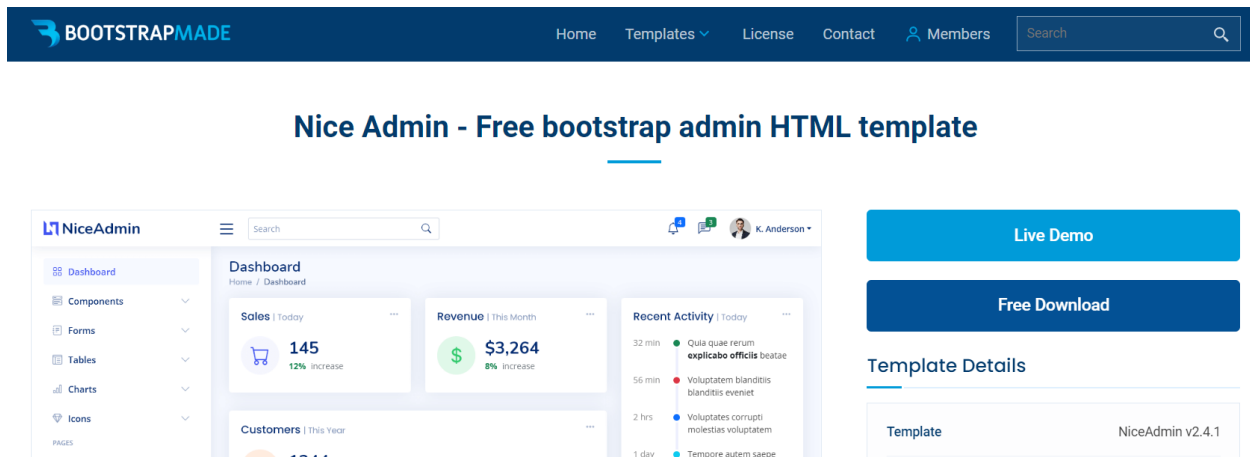
Lesson: Create an Admin page

Preparatin: Downloa NiceAdmin template as follows

- Open the following link:

https://bootstrapmade.com/nice-admin-bootstrap-admin-html-template/

- Choose Free dowload/Free Template to get NiceAdmin template

- Extract the file and run **index.html**, the template looks like this:

- The following steps in order to create an admin page and get menu from the database (int the table AdminMenu).

1. Create the table **AdminMenu** in the database aznews, where **AdminMenuID** is set to auto increate.

Column Name	Data Type	Allow Nulls
🔑 AdminMenuID	bigint	☐
ItemName	nvarchar(50)	☑
ItemLevel	int	☑
ParentLevel	int	☑
ItemOrder	int	☑
IsActive	bit	☑
ItemTarget	nvarchar(20)	☑
AreaName	nvarchar(20)	☑
ControllerName	nvarchar(20)	☑
ActionName	nvarchar(20)	☑
Icon	nvarchar(50)	☑
IdName	nvarchar(50)	☑

- Add some information as follows

AdminMen…	ItemName	ItemLevel	ParentLevel	ItemOrder	IsActive	ItemTarget	AreaName	Controller…	ActionName	Icon	IdName
1	Bảng điều khiển	0	0	1	False	NULL	Admin	Home	Index	NULL	NULL
2	Thông tin cá nhân	0	0	1	False	NULL	Admin	Home	Index	NULL	NULL
3	Hướng dẫn sử dụng	0	0	2	False	NULL	Admin	Home	Index	NULL	NULL
4	Liên lạc	0	0	3	False	NULL	Admin	Home	Index	NULL	NULL
5	Đăng xuất	0	0	4	False	NULL	Admin	Home	Index	NULL	NULL
6	Quản lý bài viết	1	0	1	True	components-nav	Admin	Home	Index	bi bi-menu-button-wide	components-nav
7	Cập nhật bài viết	2	6	1	True	NULL	Admin	Home	Index	NULL	NULL
8	Duyệt và đăng bài viết	2	6	2	True	NULL	Admin	Home	Index	NULL	NULL
9	Bài viết đã đăng	2	6	3	True	NULL	Admin	Home	Index	NULL	NULL
10	Quản lý menu	1	0	1	True	forms-nav	Admin	Home	Index	bi bi-journal-text	forms-nav
11	Thêm mới menu	2	10	1	True	NULL	Admin	Home	Index	NULL	NULL
12	Chỉnh sửa menu	2	10	2	True	NULL	Admin	Home	Index	NULL	NULL
13	Quản lý slide	1	0	1	True	charts-nav	Admin	Home	Index	bi bi-bar-chart	charts-nav
14	Thêm mới slide	2	13	1	True	NULL	Admin	Home	Index	NULL	NULL
15	Chỉnh sửa slide	2	13	2	True	NULL	Admin	Home	Index	NULL	NULL

2. Open project **aznews**, open the terminal windows and install the following packages:
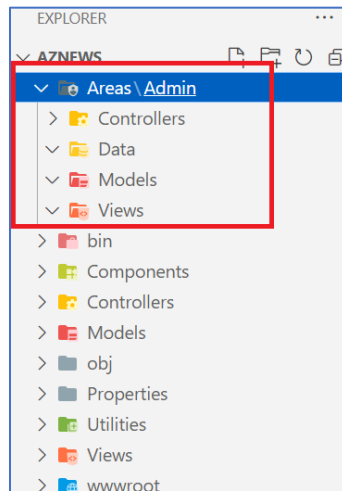
```
dotnet tool install -g dotnet-aspnet-codegenerator
```

```
dotnet add package Microsoft.VisualStudio.Web.CodeGeneration.Design
```
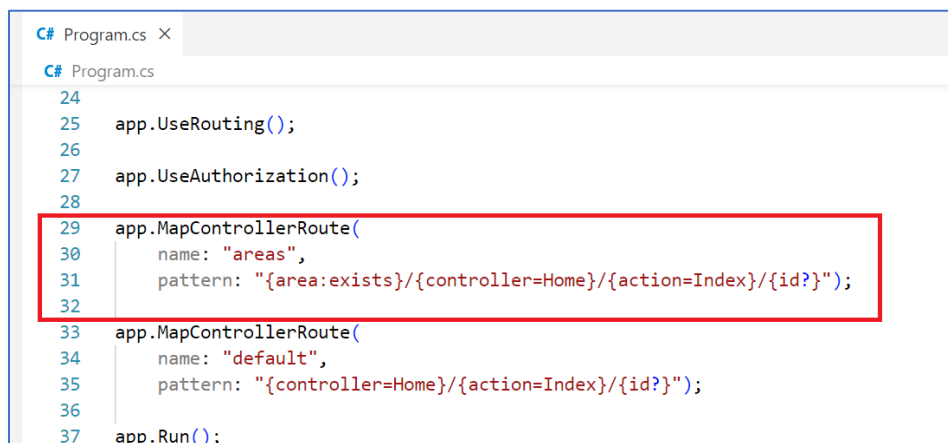
3. Create Admin folder using this command:

```
dotnet aspnet-codegenerator area Admin
```
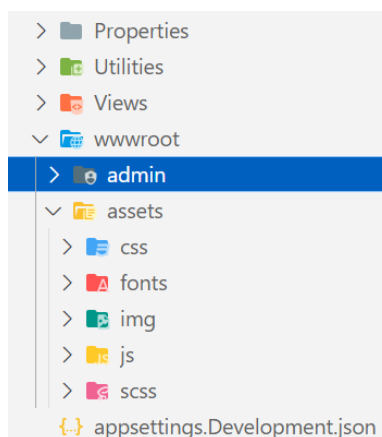
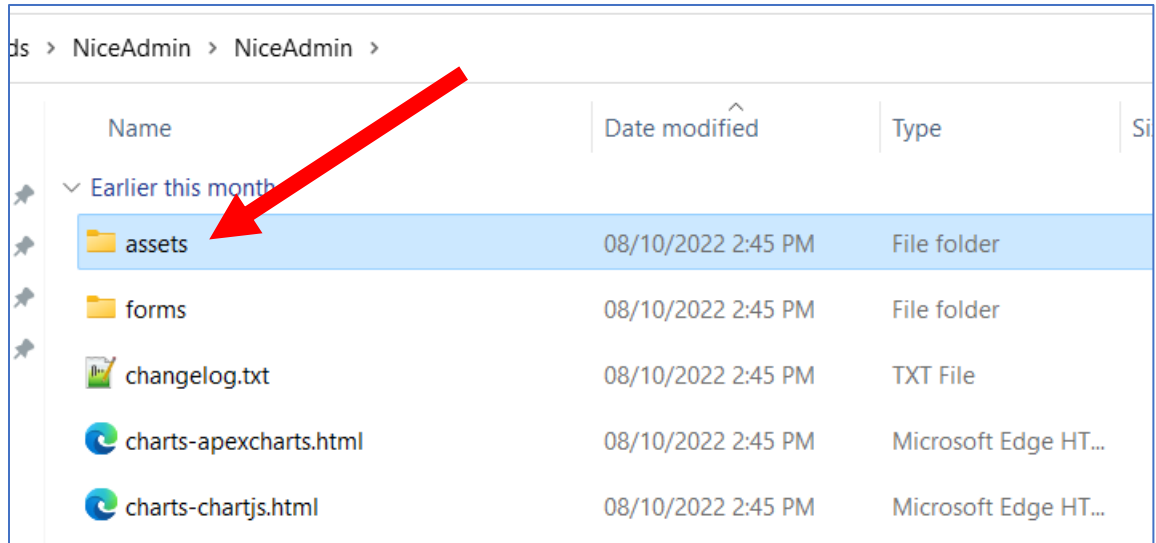- After this command, we have the following folders:

- Add to **Program.cs** the following code

4. Create a folder **admin** trong **wwwroot** (lowercase letters to avoid confusion with the Admin folder in Areas)
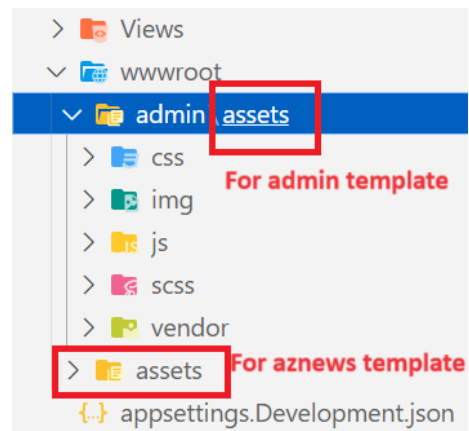

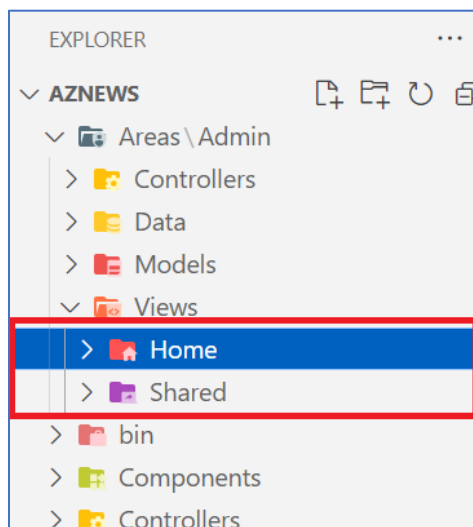- Copy the **asserts** folder int the template **NiceAdmin** in to **wwwroot/admin**

- After that, we have:
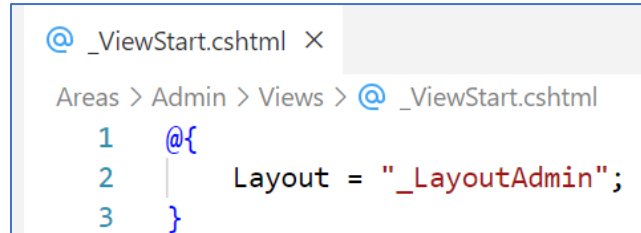
5. In the Views of Admin, create the following folders: **Home**, **Shared**

- In the folder **Admin/Views** create a file **_ViewStart.cshtml**:

Add the follwing information:

- In the folder **Admin/Views/Home** create a file **Index.cshtml**;

- In the folder **Admin/Views/Shared**, create a file **_LayoutAdmin.cshtml**;
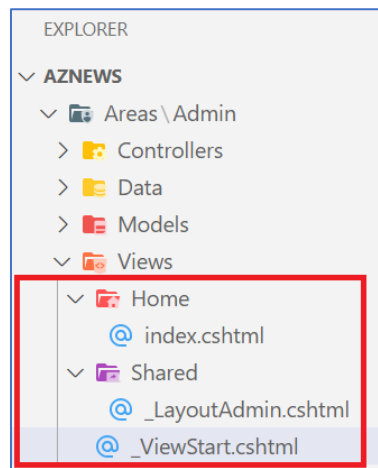
6. Copy all the content in the **index.html** of **template NiceAdmin**, and **paste** in to the file **_LayoutAdmin.cshtml**.

```
@ _LayoutAdmin.cshtml  ×

Areas > Admin > Views > Shared > @ _LayoutAdmin.cshtml
    1    <!DOCTYPE html>
    2    <html lang="en">
    3
    4    <head>
    5      <meta charset="utf-8">
    6      <meta content="width=device-width, initial-scale=1.0" name="viewport">
    7
    8      <title>Dashboard - NiceAdmin Bootstrap Template</title>
    9      <meta content="" name="description">
   10      <meta content="" name="keywords">
   11
   12      <!-- Favicons -->
   13      <link href="assets/img/favicon.png" rel="icon">
   14      <link href="assets/img/apple-touch-icon.png" rel="apple-touch-icon">
   15
   16      <!-- Google Fonts -->
   17      <link href="https://fonts.gstatic.com" rel="preconnect">
```

- Replate content (CTRL + H): **assets/ → ~/admin/assets/**

- Click Replace all (the red square)

```
@ _LayoutAdmin.cshtml  ×

Areas > Admin > Views > Shared > @ _LayoutAdmin.cshtml
    4    <head>
                                              ┌─────────────────────────────────────────┐
   17      <link href="https://fonts.gstatic.com" rel="│  assets/               Aa ab, .*  │ 2 of 34
   18      <link href="https://fonts.googleapis.com/css │  ~/admin/assets/            AB  🔁 🔲 │
   19                                          └─────────────────────────────────────────┘
   20      <!-- Vendor CSS Files -->
   21      <link href="assets/vendor/bootstrap/css/bootstrap.min.css" rel="stylesheet">
   22      <link href="assets/vendor/bootstrap-icons/bootstrap-icons.css" rel="stylesheet">
   23      <link href="assets/vendor/boxicons/css/boxicons.min.css" rel="stylesheet">
   24      <link href="assets/vendor/quill/quill.snow.css" rel="stylesheet">
   25      <link href="assets/vendor/quill/quill.bubble.css" rel="stylesheet">
   26      <link href="assets/vendor/remixicon/remixicon.css" rel="stylesheet">
   27      <link href="assets/vendor/simple-datatables/style.css" rel="stylesheet">
   28
   29      <!-- Template Main CSS File -->
   30      <link href="assets/css/style.css" rel="stylesheet">
   31
```

7. In the file **_LayoutAdmin.cshtml, find the folowing code**

```
506    </aside><!-- End Sidebar-->
507
508 >  <main id="main" class="main">···
1154   </main><!-- End #main -->
1155
1156   <!-- ======= Footer ======= -->
1157   <footer id="footer" class="footer">
```

- Cut all the content from <main id="main" class="main" > … </main> (Ctrl + X) and paste this content to **index.cshtml** in the folder **Home** of **Admin**.

- Add **@RenderBody()** in the file **_LayoutAdmin.cshtml** (replate the main content).

8. In the folder **Controllers** of **Admin**, add a controller **HomeController.cs** as follows (remember adding the line [Area("Admin")]:

```csharp
C# HomeController.cs  ×

Areas > Admin > Controllers > C# HomeController.cs > ...
    1    using Microsoft.AspNetCore.Mvc;
    2
    3    namespace aznews.Areas.Admin.Controllers;
    4
    5    [Area("Admin")]
         0 references
    6    public class HomeController : Controller
    7    {
             0 references
    8        public IActionResult Index()
    9        {
    10           return View();
    11       }
    12
    13   }
```
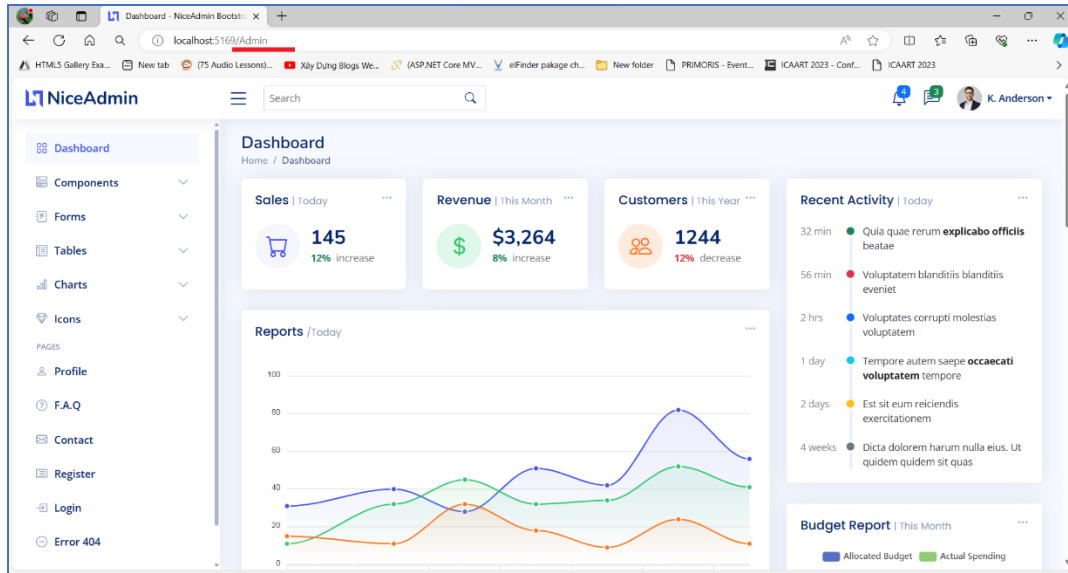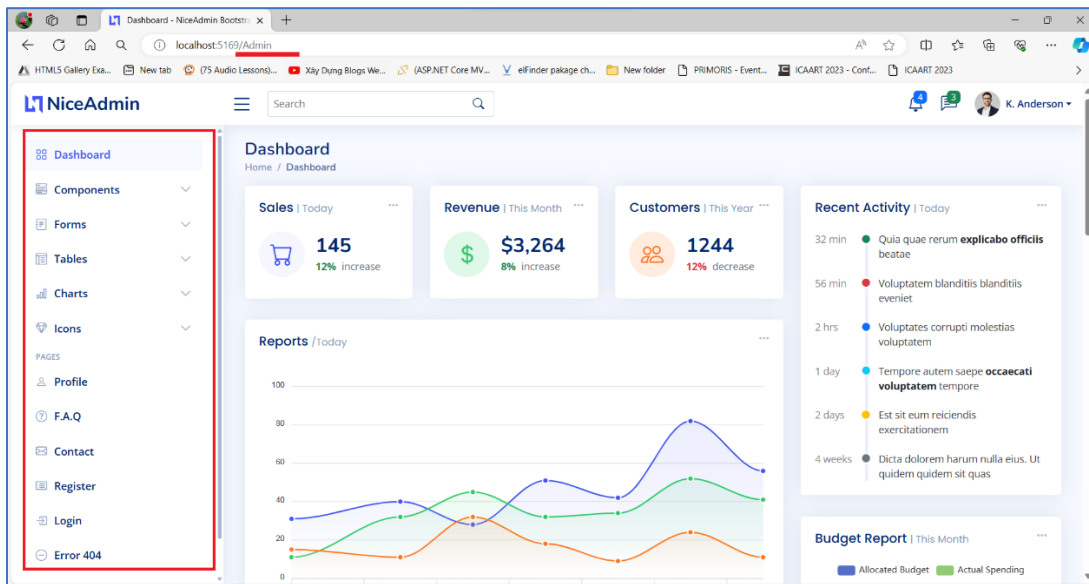
9. Run and have a fun!

- Add **/Admin** after url in the browse

- For example: https://localhost:xxx**/Admin**
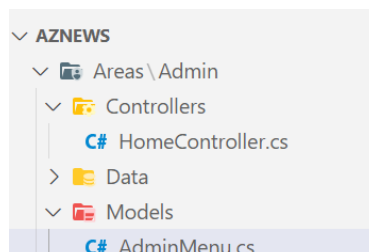
- The following template will be displayed

GET THE MENU FROM THE DATABASE

10. Create a model **AdminMenu.cs** in the folder **Models** of **Admin**

*(Right click on Models, choose New C# Class, type **AdminMenu.cs**, Enter)*

- Add the following information

```csharp
using System.ComponentModel.DataAnnotations;

namespace aznews.Areas.Admin.Models
{
    [Table("AdminMenu")]
    public class AdminMenu
    {
        [Key]
        public long AdminMenuID { get; set; }
        public string? ItemName { get; set; }
        public int ItemLevel { get; set; }
        public int ParentLevel { get; set; }
        public int ItemOrder { get; set; }
        public bool? IsActive { get; set; }
        public string? ItemTarget { get; set; }
        public string? AreaName { get; set; }
        public string? ControllerName { get; set; }
        public string? ActionName { get; set; }
        public string? Icon { get; set; }
        public string? IdName { get; set; }

    }
}
```

11. Add the following line in the file **DataContext.cs**

```csharp
using aznews.Areas.Admin.Models;
using Microsoft.EntityFrameworkCore;

namespace aznews.Models
{
    public class DataContext : DbContext
    {
        public DataContext(DbContextOptions<DataContext> options) : base(options)
        {
        }
        public DbSet<tblMenu> Menus { get; set; }
        public DbSet<viewPostMenu> viewPostMenus { get; set; }

        public DbSet<AdminMenu> AdminMenus { get; set; }
    }
}
```
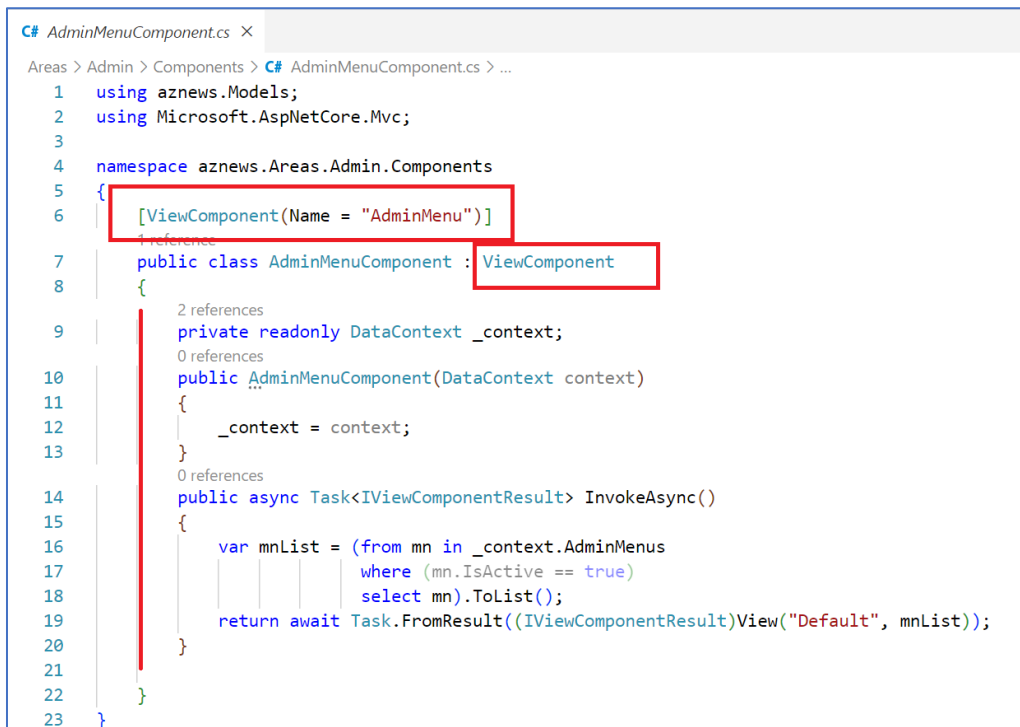
12. Create a folder **Components** in **Admin,** and then add a class in the **Components** named **AdminMenuComponent.cs** *(Right click on Components, choose New C# Class, type **AdminMenuComponent.cs**, Enter)*
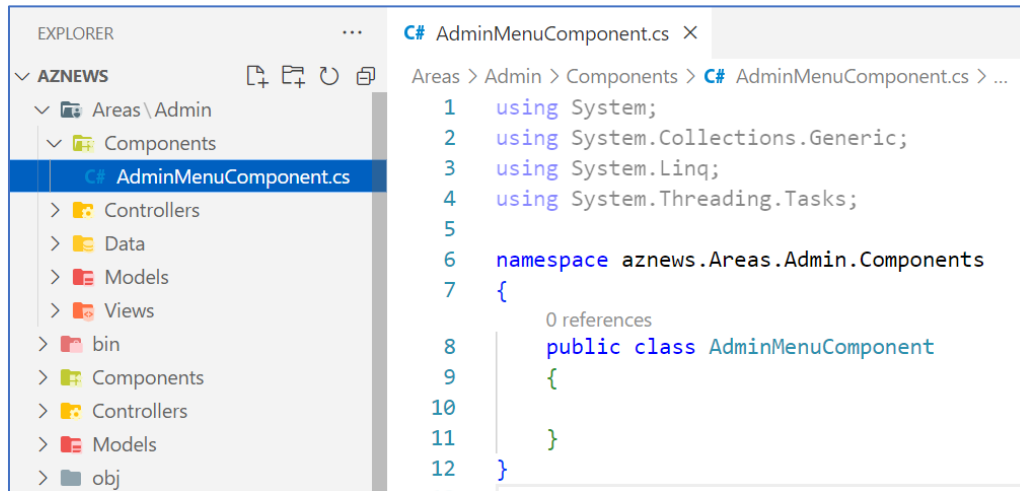
- Add the following content in **AdminMenuComponent.cs**

13.

- Create a folder **Components** in **Admin/Views/Shared**

- Create a folder **AdminMenu** in **Admin/Views/Shared**/**Components**

- Create a view **Default.cshtml** in the folder **AdminMenu**
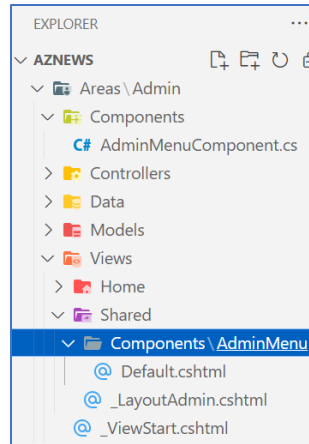
14. Open the file **_LayoutAdmin.cshtml**, cut all content sidebar and paste to the file **Default.cshtml** in **Components/AdminMenu**

- Open _LayoutAdmin.cshtml again

- Add the following line:

15. Open the file **Default.cshtml** in the folder **Components/AdminMenu**

- Collapsed, we have the following code:

```
@ Default.cshtml  ✕

Areas > Admin > Views > Shared > Components > AdminMenu > @ Default.cshtml
    1    <aside id="sidebar" class="sidebar">
    3        <ul class="sidebar-nav" id="sidebar-nav">
    5            <li class="nav-item">
    6                <a class="nav-link " href="index.html">
    9                │  </a>
   10            </li><!-- End Dashboard Nav -->
   11
   12  >          <li class="nav-item">…
   88             </li><!-- End Components Nav -->
   89
   90  >          <li class="nav-item">…
  116             </li><!-- End Forms Nav -->
  117
  118 >          <li class="nav-item">…
  134             </li><!-- End Tables Nav -->
  135
  136 >          <li class="nav-item">…
  157             </li><!-- End Charts Nav -->
  158
  159 >          <li class="nav-item">…
  180             </li><!-- End Icons Nav -->
```

- These codes are almost identical; we only need to keep one of them, for example:

```
@ Default.cshtml  ✕

Areas > Admin > Views > Shared > Components > AdminMenu > @ Default.cshtml
    1    <aside id="sidebar" class="sidebar">
    3        <ul class="sidebar-nav" id="sidebar-nav">
    5            <li class="nav-item">
    6                <a class="nav-link " href="index.html">
    9                │  </a>
   10            </li><!-- End Dashboard Nav -->
   11
   12  >          <li class="nav-item">…
   38             </li><!-- End Forms Nav -->
   39
   40             <li class="nav-heading">Pages</li>
```

16. Add the following line to the top of the file **Default.cshtml**

```
@ Default.cshtml  ✕

Areas > Admin > Views > Shared > Components > AdminMenu > @ Default.cshtml
    1    @using aznews.Areas.Admin.Models
    2    @model IList<AdminMenu>
    3
    4    <aside id="sidebar" class="sidebar">
    5
    6        <ul class="sidebar-nav" id="sidebar-nav">
    7
```

- Replace the following code after <!-- End Dashboard Nav --> as follows:

```
 8        <li class="nav-item">
 9          <a class="nav-link" href="#">
10            <i class="bi bi-grid"></i>
11            <span>Bảng điều khiển</span>
12          </a>
13        </li><!-- End Dashboard Nav -->
14
15        @foreach (var item in Model.Where(m => m.ItemLevel == 1).OrderBy(m => m.ItemOrder))
16          {
17              var pID = item.AdminMenuID;
18              var sMenu = Model.Where(p => p.ParentLevel == pID).OrderBy(p => p.ItemOrder).ToList();
19              <li class="nav-item">
20                  <a class="nav-link collapsed" data-bs-target="#@item.ItemTarget" data-bs-toggle="collapse" href="#">
21                      <i class="@item.Icon"></i><span>@item.ItemName</span><i class="bi bi-chevron-down ms-auto"></i>
22                  </a>
23                  @if (sMenu != null)
24                  {
25                      <ul id="@item.IdName" class="nav-content collapse" data-bs-parent="#sidebar-nav">
26                        @foreach(var smn in sMenu)
27                        {
28                          <li>
29                            <a href="/Admin/@smn.ControllerName/@smn.ActionName">
30                                <i class="bi bi-circle"></i><span>@smn.ItemName</span>
31                            </a>
32                          </li>
33                        }
34                      </ul>
35                  }
36              </li>
37          }
38
39        <li class="nav-heading">Pages</li>
40
41        <li class="nav-item">
42          <a class="nav-link collapsed" href="users-profile.html">
```

- Run the code, add **/Admin** after the current url, you will have: