

Attribute Routing in ASP.NET Core MVC | Route Attribute

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Attribute Routing

- ▶ With the help of ASP.NET Core Attribute Routing, you can use the Route attribute to define routes for your application.
- ▶ You can use the Route attribute either at the Controller level or at the Controller Action Methods level.
- ▶ When you apply the Route attribute at the Controller level, then it is applicable for all the action methods of that controller.

Visual Studio interface showing the development of a web application named **Ex5_AttributeRoute**.

Menu Bar: File, Edit, View, Project, Build, Debug, Test, Analyze, Tools, Extensions, Window, Help. Search (Ctrl+Q). Sign in. Live Share.

Toolbar: Includes icons for file operations, debugging, and IIS Express.

Toolbox: Displays the project structure for **Ex5_AttributeRoute**, including **Startup.cs**, **Index.cshtml**, **HomeController.cs**, and **Object Browser**.

Code Editor: Shows the **Configure** method in **Startup.cs**. The code is as follows:

```
14 // This method gets called by the runtime. Use this method to add service
15 // For more information on how to configure your application, visit http
16 public void ConfigureServices(IServiceCollection services)
17 {
18     services.AddMvc();
19 }
20
21 // This method gets called by the runtime. Use this method to configure
22 public void Configure(IApplicationBuilder app, IHostingEnvironment env)
23 {
24     if (env.IsDevelopment())
25     {
26         app.UseDeveloperExceptionPage();
27     }
28     app.UseMvc();
29     app.Run(async (context) =>
30     {
31         await context.Response.WriteAsync("Hello World!");
32     });
33 }
34
35
36
```

Output Window: Displays the build output, showing that the build succeeded.

```
Build: 1
succeeded,
0 failed,
0 up-to-
date, 0
skipped
=====
```

Solution Explorer: Shows the project structure, including **Ex5_AttributeRoute**, **Controllers**, **Views**, **Program.cs**, and **Startup.cs**.

Status Bar: Indicates "Build succeeded" and "No issues found".

Taskbar: Shows the Windows taskbar with various application icons and the system clock (09:48, 21-01-2021).

File Edit View Project Build Debug Test Analyze Tools Extensions Window Help Search (Ctrl+Q) Ex5_AttributeRoute Sign in Live Share

Startup.cs Index.cshtml HomeController.cs Object Browser

Ex5_AttributeRoute Ex5_AttributeRoute.Controllers.HomeContr Index()

```
1 using Microsoft.AspNetCore.Mvc;
2 using System;
3 using System.Collections.Generic;
4 using System.Linq;
5 using System.Threading.Tasks;
6
7 namespace Ex5_AttributeRoute.Controllers
8 {
9     public class HomeController : Controller
10     {
11         [Route("/")]//if we not passing any url by default Index page is running
12         public IActionResult Index()
13         {
14             return View();
15         }
16     }
17
18 }
```

120 % No issues found Ln: 15 Ch: 10 SPC CRLF

Output

```
buteRoute
\bin\Debug
\netcoreap
p2.1
\Ex5_Attri
buteRoute.
dll
1>Ex5_Attri
buteRoute -
> C:\Users
\Lenovo
\Desktop
\Asp.net_C
ore
\Examples
\Ex5_Attri
buteRoute
\bin\Debug
\netcoreap
p2.1
\Ex5_Attri
buteRoute.
Views.dll
=====
Build: 1
succeeded,
0 failed,
0 up-to-
date, 0
skipped
=====
```

Solution Explorer

Search Solution Explorer (Ctrl+;)

Solution 'Ex5_AttributeRoute' (1 of 1 project)

- Ex5_AttributeRoute
 - Connected Services
 - Dependencies
 - Properties
 - wwwroot
 - Controllers
 - C# HomeController.cs
 - Views
 - C# Program.cs
 - C# Startup.cs

Ready Add to Source Control 09:49 21-01-2021

- [Route("/")]]//if we not passing any url by default Index page is running
- [Route("Index")]
- [Route("Home/Index")]
- public IActionResult Index()
- {
- return View();
- }
- Run:-Same Action is running
- <https://localhost:44380/>
- <https://localhost:44380/Index>

- <https://localhost:44380/Home/Details/1>

- //Must Passing id

- [Route("Home/Details/{id}")]

- public string Details(int id)

- {

- return "Id=" + id.ToString() ;

- }

- --id is Optional

- [Route("Home/Details/{id?}")]

- public string Details(int id)

- {

- return "Id=" + id.ToString() ;

- }

Controller Level Routes:-

<https://localhost:44380/test>

The screenshot displays the Visual Studio IDE with the following components:

- Code Editor:** Shows the `TestController.cs` file in the `Ex5_AttributeRoute.Controllers` namespace. The code defines a `TestController` class that inherits from `Controller`. It includes a `[Route("test")]` attribute and an `Index()` action method that returns `View()`.
- Solution Explorer:** Shows the project structure for `Ex5_AttributeRoute`, including `Controllers`, `Views`, and `TestController.cs`.
- Output Window:** Displays the build output, indicating that the build succeeded.
- Taskbar:** Shows the Windows taskbar with various application icons and the system clock.

```
1 using Microsoft.AspNetCore.Mvc;
2 using System;
3 using System.Collections.Generic;
4 using System.Linq;
5 using System.Threading.Tasks;
6
7 namespace Ex5_AttributeRoute.Controllers
8 {
9     [Route("test")]
10    public class TestController : Controller
11    {
12        [Route("")]
13        public IActionResult Index()
14        {
15            return View();
16        }
17    }
18 }
19
20
```

Build: 1 succeeded, 0 failed, 0 up-to-date, 0 skipped

- <https://localhost:44380/test:-Index> page is running
- <https://localhost:44380/test/Aboutus> Aboutus Page is running
- <https://localhost:44380/test/Details/1> Details Page is running

The screenshot displays the Visual Studio IDE with the following components:

- File Explorer:** Shows the project structure for 'Ex5_AttributeRoute'.
- Code Editor:** Displays the `TestController.cs` file with the following code:

```
10 public class TestController : Controller
11 {
12     [Route("")]
13     public IActionResult Index()
14     {
15         return View();
16     }
17     [Route("AboutUs")]
18     public IActionResult AboutUs()
19     {
20         return View();
21     }
22     //Id not optional
23     [Route("Details/{id}")]
24     public IActionResult Details(int id)
25     {
26         return View();
27     }
28     //Id is optional
29     [Route("Details/{id?}")]
30     public IActionResult Details1(int id)
31     {
32         return View();
33     }
34 }
```
- Output Window:** Shows the build output for the project, indicating that the build succeeded.
- Solution Explorer:** Shows the project structure, including the `TestController.cs` file and the `Views` folder.

- // ~ sign override the controller level Route
- [Route("~/ContactUs")]
- public ActionResult ContactUs()
- {
- return View();
- }
- <https://localhost:44380/contactus>

Thanks