

Episode 6

DEEP DIVE INTO ATTRIBUTE- BASED ROUTING IN ASP.NET CORE

swipe



Dhruv Mehta
@DhruvMehta1999



ATTRIBUTE-BASED ROUTING IN ASP.NET CORE – A DEEP DIVE!

Learn how to define cleaner and more flexible routes in your ASP.NET Core apps.

swipe



Dhruv Mehta
@DhruvMehta1999



INTRODUCTION TO ATTRIBUTE-BASED ROUTING

1. Attribute-Based Routing allows defining routes directly on controllers and actions using attributes.
2. It provides more control and flexibility than conventional route templates.

```
[Route("products")]
public class ProductController : Controller
{
    [Route("details/{id}")]
    public IActionResult Details(int id)
    {
        return Content($"Product ID: {id}");
    }
}
```

URL: /products/details/5 → Calls Details(5)

Dhruv Mehta
@DhruvMehta1999

swipe



BASIC ROUTING ATTRIBUTES

1. Define routes on controllers and actions using [Route]

```
[Route("api/products")]  
public class ProductController : Controller
```

2. Use HTTP method-specific attributes:

```
[HttpGet("list")]  
public IActionResult GetAllProducts()  
{  
    return Content("All products");  
}
```

URL: /api/products/list will be called

swipe



Dhruv Mehta

@DhruvMehta1999



OPTIONAL PARAMETERS IN ROUTES

Allow parameters to be optional using ?

```
[HttpGet("details/{id?}")]
public IActionResult Details(int? id)
{
    return Content(id.HasValue ? $"Product {id}" : "No product ID provided");
}
```

1. /api/products/details/5 → Shows Product 5
2. /api/products/details → Shows "No product ID provided"

Dhruv Mehta

@DhruvMehta1999

swipe



ROUTE CONSTRAINTS

1. Enforce parameter data types with constraints

```
[HttpGet("order/{id:int}")]
public IActionResult GetOrder(int id)
{
    return Content($"Order ID: {id}");
}
```

- 1. /order/5 Will return the appropriate output.
- 2. /order/abc Will return 404 (Only integers allowed)

2. Enforce parameter data types with constraints

```
[HttpGet("profile/{username:alpha}")]
public IActionResult GetProfile(string username)
{
    return Content($"Profile: {username}");
}
```

- /profile/john Will return correct output.
- /profile/123 Will return 404 (Only letters allowed)

Dhruv Mehta

@DhruvMehta1999

swipe



SUMMARY

What We Learned Today

1. Attribute-Based Routing simplifies route management.
2. Optional parameters & constraints improve flexibility.
3. Route prefixes keep URLs clean.

In the next Episode, we'll start learning about Models. We'll go in Depth as much as we can.

Cya in Next Episode.

Dhruv Mehta

@DhruvMehta1999

swipe

