📌 Areas in ASP.NET Core

👉 What is an Area?

- ➢ An **Area** in ASP.NET Core is a way to **organize a large application** into **separate sections**.
- ➢ Think of an Area like **departments in a company**:
  - **Admin Department**
  - **User Department**
  - **Manager Department**
- ➢ Each department has its **own controllers, views, and models**.

👉 Why do we need Areas?

- ➢ When a project becomes big:
  - Too many controllers in one folder
  - Hard to manage files
  - Confusing navigation

✅ **Areas solve this problem** by grouping related features.

👉 Without Area (Small Project)

```
Controllers
 |— HomeController.cs
 |— AccountController.cs
 |— ProductController.cs
```

👉 With Area (Large Project)

```
Areas
|— Admin
 |   |— Controllers
 |   |    └— DashboardController.cs
 |   |— Views
 |   |    └— Dashboard
 |   |         └— Index.cshtml
 |   └— Models
 |
 |— User
 |   |— Controllers
 |   |    └— ProfileController.cs
 |    |— Views
 |    |    └── Profile
 |    |         └── Index.cshtml
```

👉 Real-Life Example

- Imagine an **E-Commerce website**:

Area	**Purpose**
Admin	Manage products, users, orders
User	View products, place orders
Seller	Manage their products

👉 How to Create an Area (Step by Step)

Step 1: Create Area Folder

Inside your project:

```
Areas
 └── Admin
      |— Controllers
      |— Views
      |— Models
```

Step 2: Create Controller inside Area

Admin → Controllers → DashboardController.cs

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

- "This controller belongs to **Admin Area**"

Step 3: Create View

Path must be exactly like this:

- ➢ Areas/Admin/Views/Dashboard/Index.cshtml

Index.cshtml

```
<h2>Admin Dashboard</h2>

<p>Welcome to Admin Area</p>
```

Step 4: Configure Routing

In **Program.cs**:

```
app.MapControllerRoute(
        name: "areas",
        pattern: "{area:exists}/{controller=Home}/{action=Index}/{id?}"
);
app.MapDefaultControllerRoute();
```

🔹 {area:exists} → means area will be used **only if it exists**

👉 How to Access Area in Browser

https://localhost:5001/Admin/Dashboard/Index

Breakdown:

- Admin → Area name
- Dashboard → Controller
- Index → Action

👉 Link to Area from View

```
<a asp-area="Admin"
  asp-controller="Dashboard"
  asp-action="Index">
  Go to Admin Dashboard
</a>
```