Adding Navigation to the Site

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Overview

Understanding routing in ASP.NET Core MVC

Configuring the routing system

Navigating with tag helpers

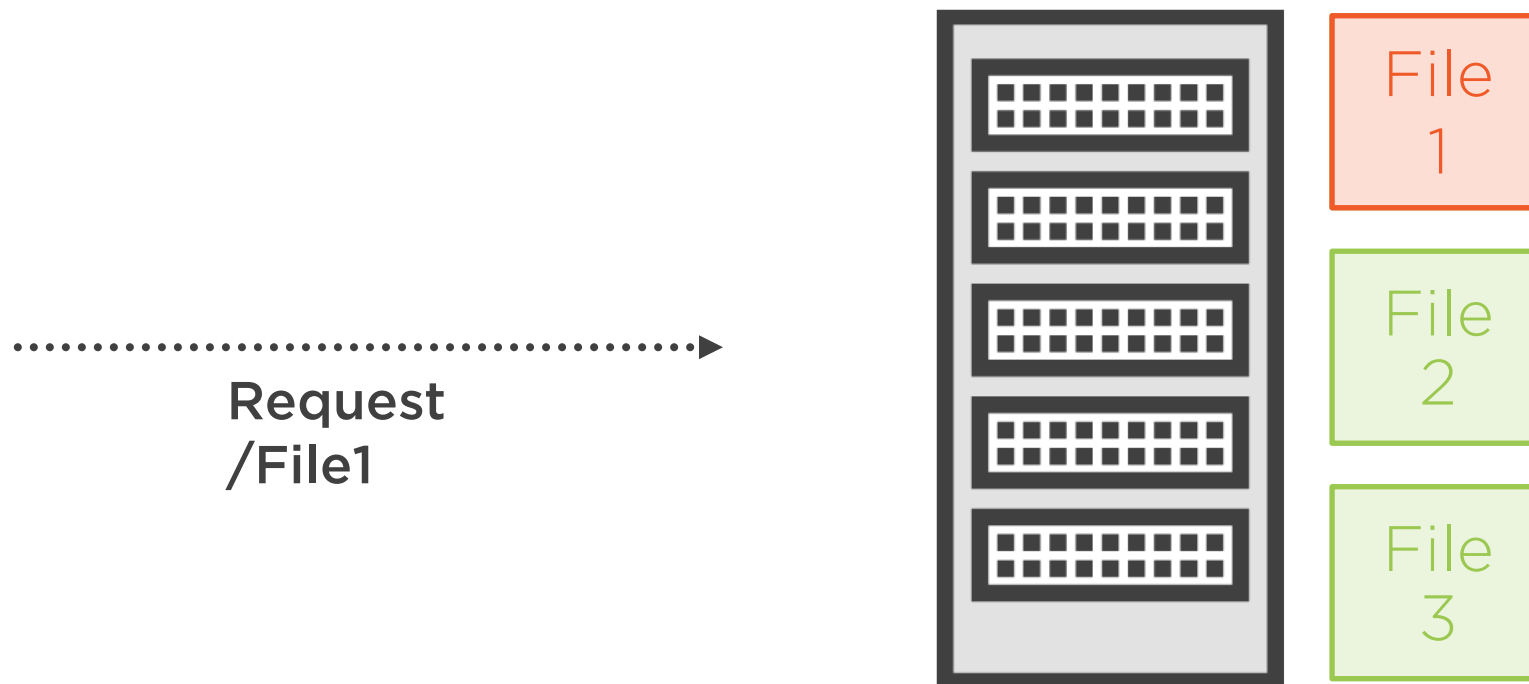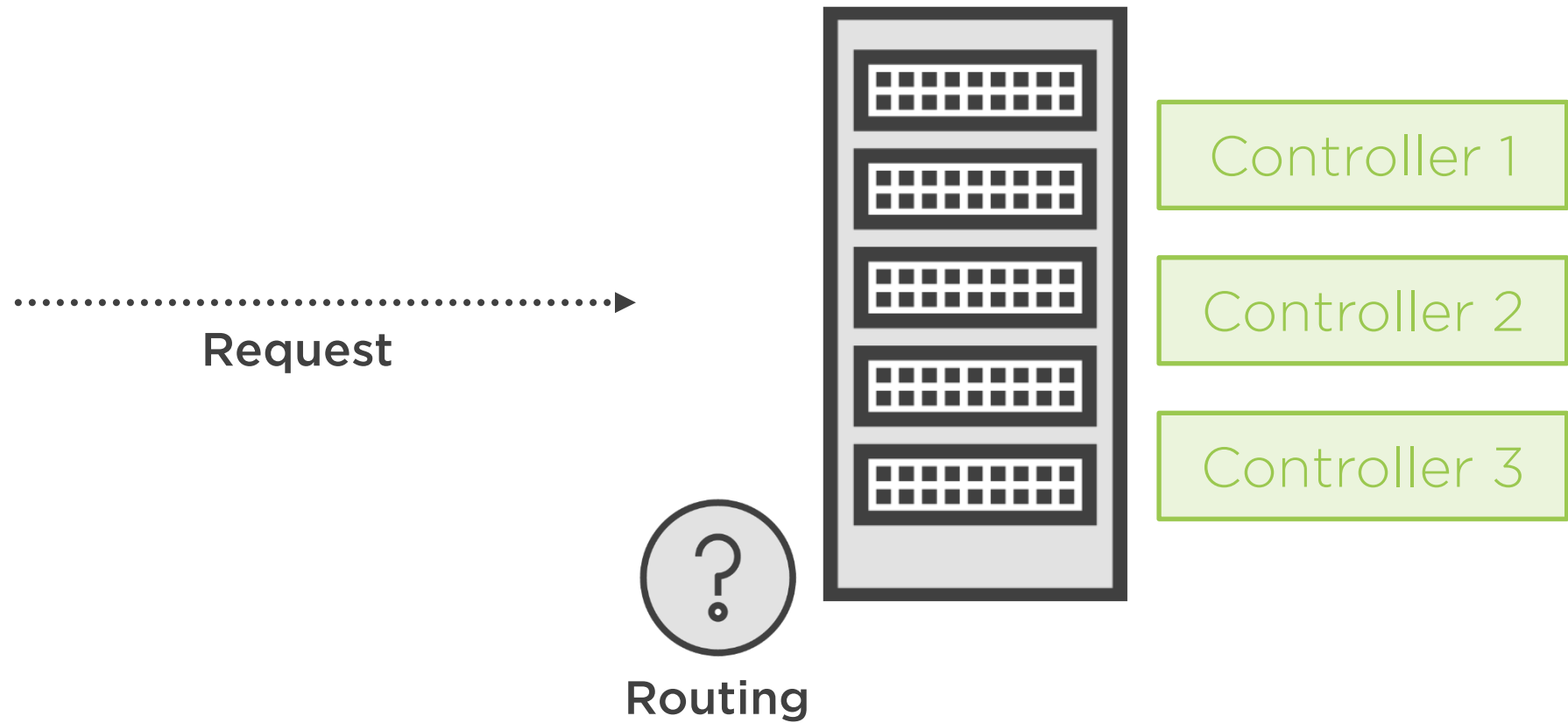# Understanding Routing in ASP.NET Core MVC

Serving Files

Request
/File1

File 1

File 2

File 3

Handing Requests in ASP.NET Core MVC

Routing

Mapping URI to endpoint

Generate links

Different types

Changed with .NET Core 3/5

Patterns and Routes

http://www.bethanyspieshop.com/**Pie**/**List**

Controller

Action

{Controller}/**{Action}**

Routing to the Action Method

```
public class PieController : Controller
{

    public ViewResult List()
    {

        return View();

    }
}
```

Working with Segments

http://www.bethanyspieshop.com/**Pie**/**Details**/**1**

Controller

Action

Value

{Controller}/**{Action}**/**{id}**

Passing a Value

```
public class PieController : Controller
{

    public ViewResult Details(int id)

    {

        //Do something

    }

}
```

Configuring the Routing System

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

Configuration in Startup

```
app.UseMvc(routes =>
{
    routes.MapRoute(
        name: "default",
        template: "{controller}/{action}");
});
```

Configuration in Startup (ASP.NET Core 2.1)

```
app.UseEndpoints(endpoints =>
{
    endpoints.MapControllerRoute(
        name: "default",
        pattern: "{controller=Home}/{action=Index}");
});
```

Route Defaults

- Will match www.bethanyspieshop.com

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

Passing Values

Receiving the Value

```
public class PieController : Controller
{

    public ViewResult Details(int id)

    {

        //Do something

    }

}
```

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

Optional Segments

- Will match
  - www.bethanyspieshop.com/Pie/List
  - www.bethanyspieshop.com/Pie/Details/1

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

Adding Constraints

Navigating with Tag Helpers

We need to generate correct links in the resulting HTML

```
@Html.ActionLink
 ("View Pie List","List",
  "Pie")



<a asp-controller="Pie"
asp-action="List">
  View Pie List
</a>
```

◀ HTML Helpers

◀ Tag Helpers

Tag Helpers

Server-side

Trigger code execution

Built-in or custom

Replace HTML Helpers

```
<a asp-controller="Pie" asp-action="List">
  View Pie List
</a>
```

Tag Helpers

```
<a href="/Pie/List">View Pie List</a>
```

Resulting HTML

Registering Your Tag Helpers

```
@using BethanysPieShop.Models
@using BethanysPieShop.ViewModels
@addTagHelper *, Microsoft.AspNetCore.Mvc.TagHelpers
```

Tag Helpers

asp-controller

asp-action

asp-route-*

asp-route

Demo

Adding Navigation

Summary

Routing matches incoming request URI with pattern

Tag Helpers help to create clean code
- Also for links

Up next:
Adding more View features