

# Razor Pages in ASP.NET Core: Getting Started

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## RAZOR PAGES ESSENTIAL CONCEPTS



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# What Is Razor?

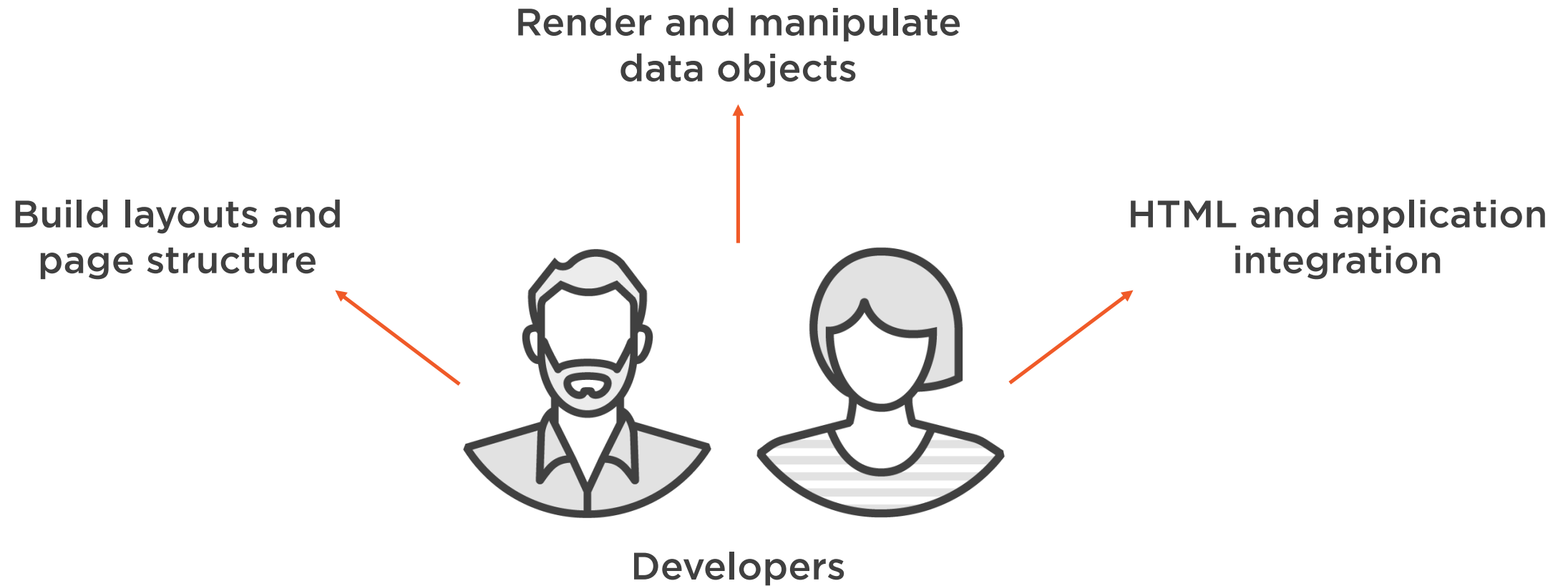


# Razor:

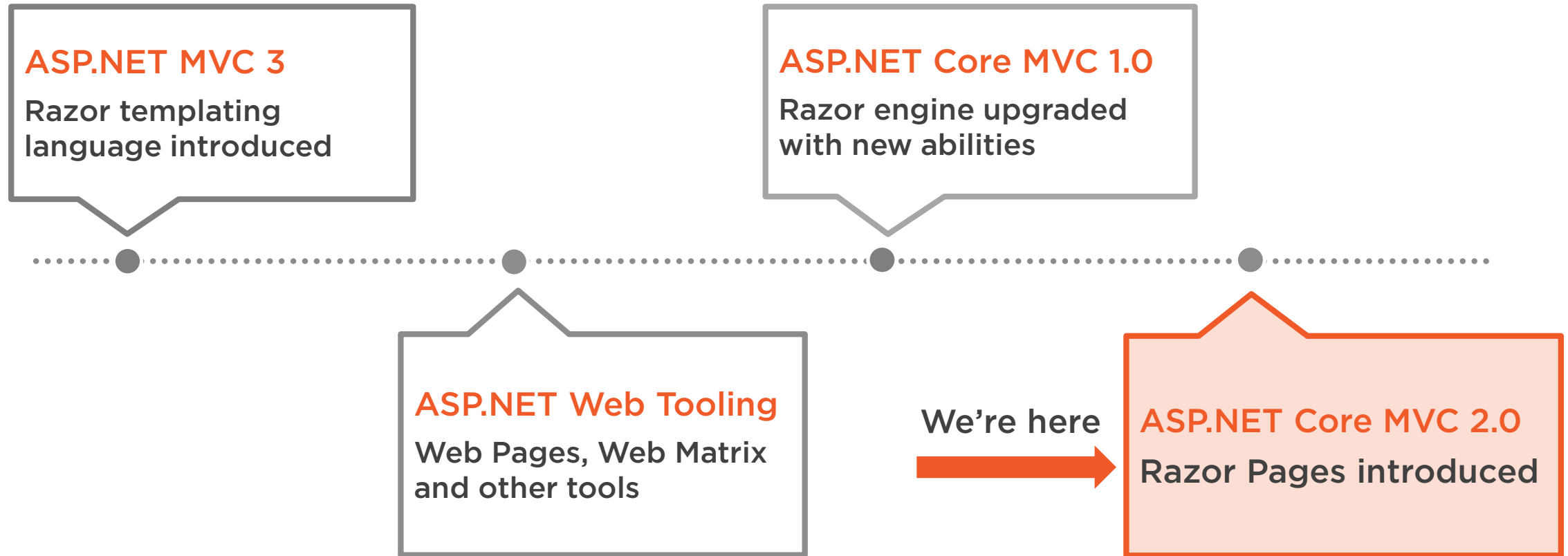
A server side templating syntax designed to generate data driven markup.



# Razor Pages in Practice



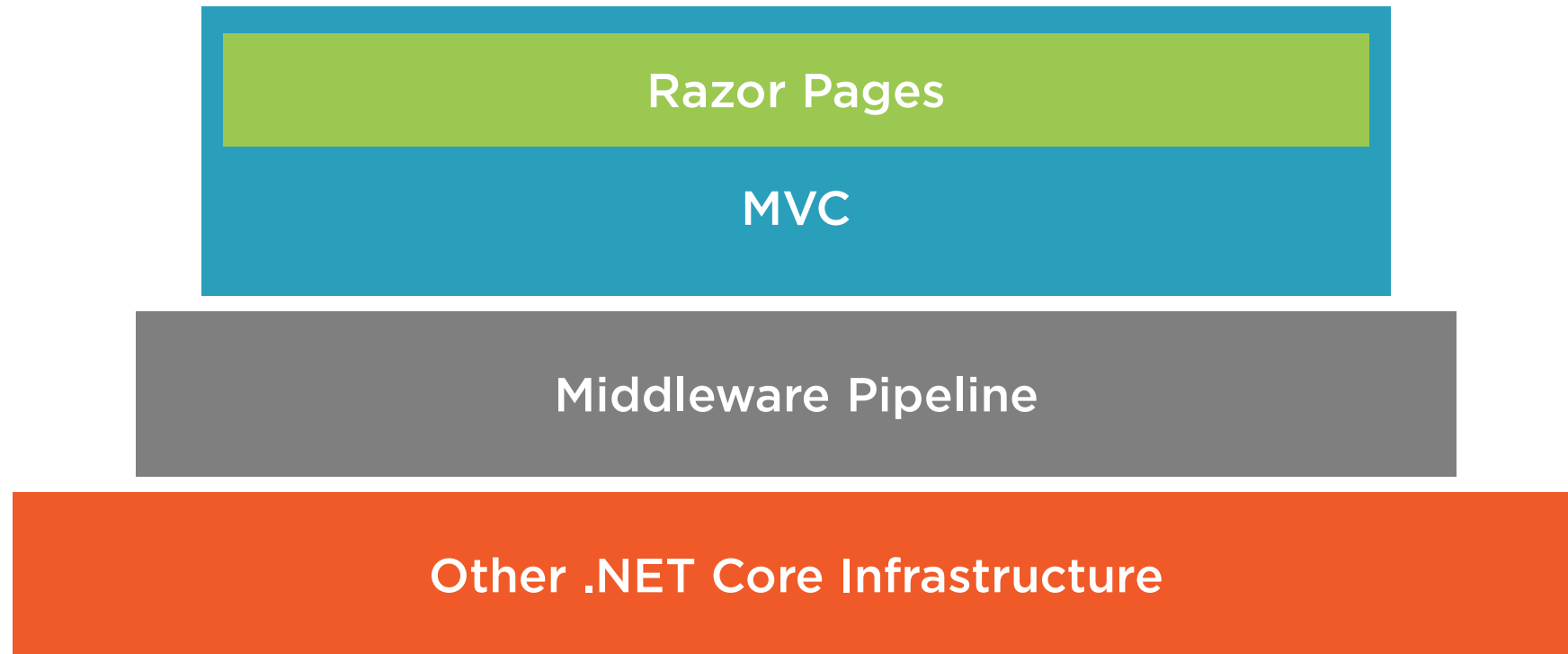
# A Brief History of Razor



# Razor Pages Design Patterns



# Razor Pages Infrastructure



# Required and Recommended Skills

## Need to Know

HTML  
CSS  
C#

## Nice to Know

.NET Core Essentials  
MVC





# Razor Pages and MVC

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# Understanding Razor and MVC

Razor Pages

**= =**

Technologically  
coupled

MVC

Razor Pages

**!=**

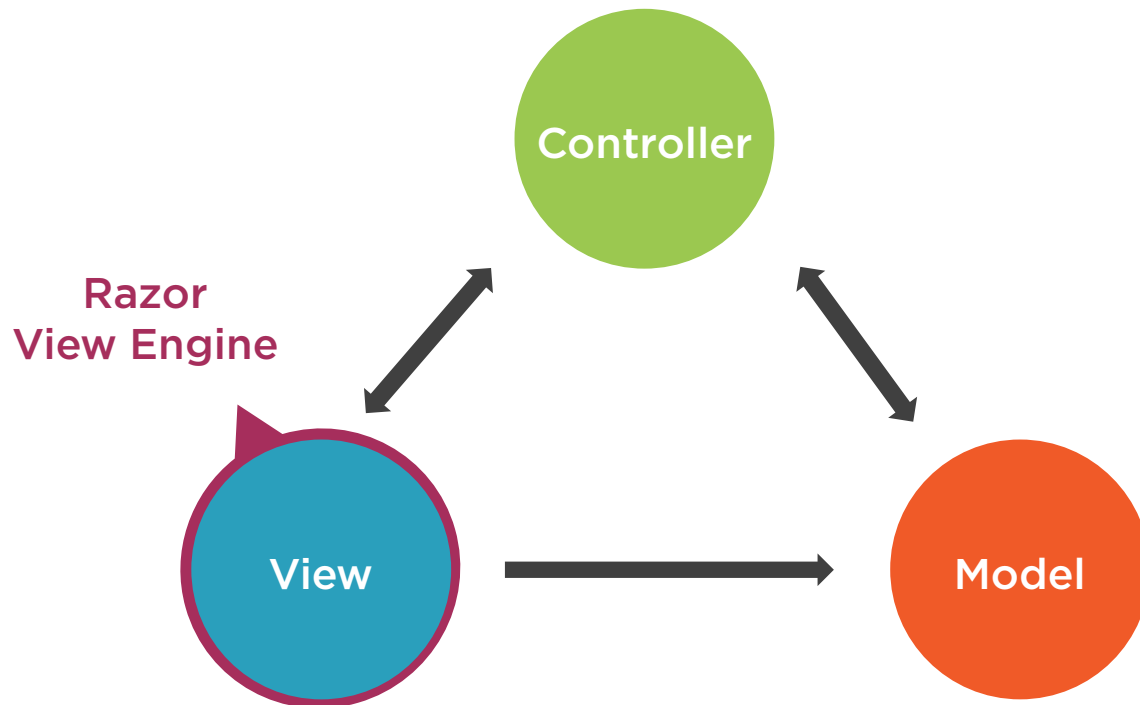
Separate design  
and features

MVC



# A Tale of Two Patterns

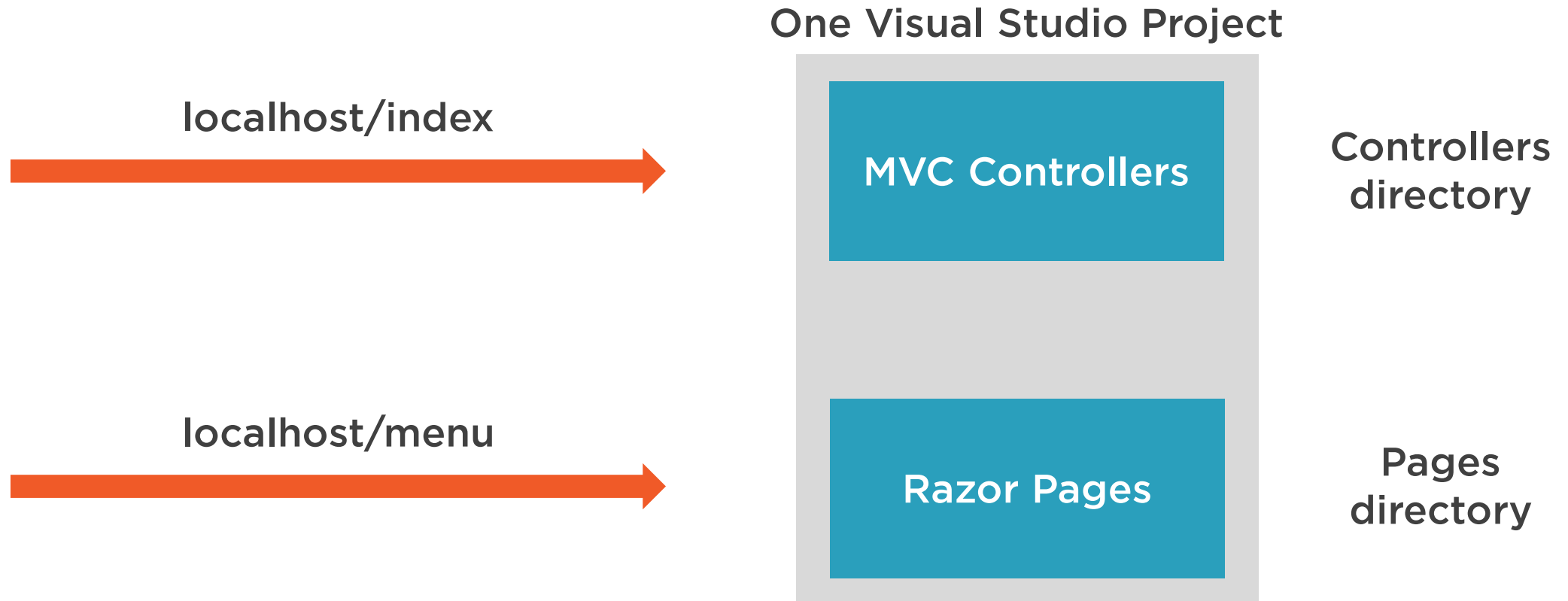
## The MVC Pattern



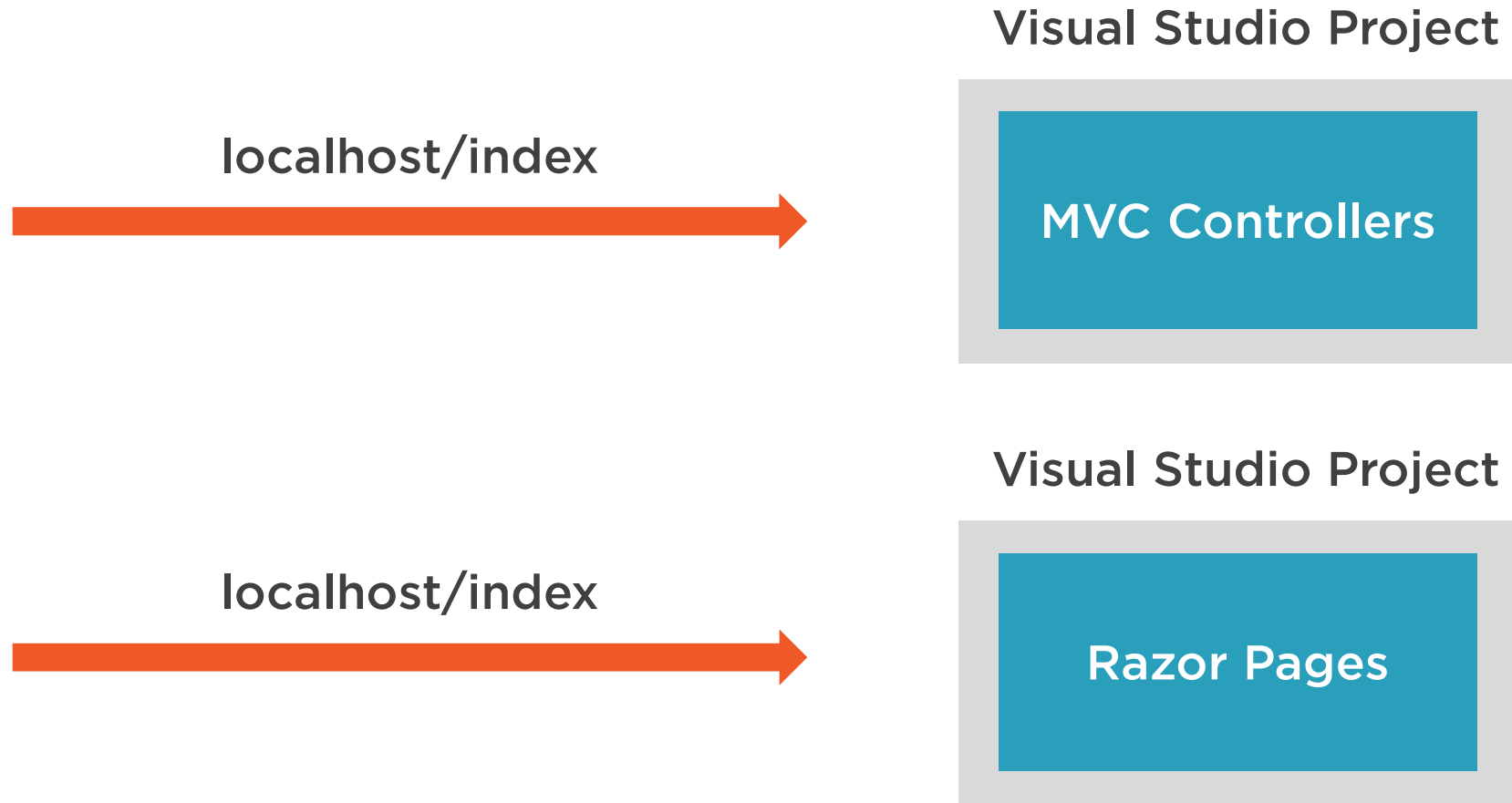
## Razor Pages Pattern



# Combining Design Patterns



# Choosing a Design Pattern



# Why Choose Razor Pages?



# Comparing Razor Pages and MVC

**Razor Pages**

**MVC**



# Understanding Razor Syntax and Flow

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# Working with Razor

```
<p>The total is:  
@Model.Sum</p>
```

```
<p>The time is:  
@DateTime.Now</p>
```

Display data

```
@section Footer {  
  <p>HTML Content goes  
  here</p>  
}
```

Keyword features

```
@{  
    var sum = 1 + 1;  
}
```

C# code

```
<input asp-for="zipcode"  
type="text" />
```

Generating markup



```
@model MenuItemModel
```

```
<div>
```

```
    <h2>Menu Item</h2>
```

```
        <span>@Model.Name</span>
```

```
        <span>@Model.Price</span>
```

```
        <span>Posted at: @DateTime.Now</span>
```

```
</div>
```

## Razor Syntax

Easily transition between Razor and HTML using @ sign

Razor pages are backed by data from a Page Model



# Understanding Razor Layout Features

Wired Brain Coffee

HomeFeedbackMenuContact

## Contact

We'd love to hear from you.

Life gets busy but we try to respond with 24 hours. If you have a more immediate question, give us a ring using the number over on the right. We are crazy friendly!

Your Name:

Phone Number:

Email:

Message:

Send Message!

## Keep in Touch

Sign up for our mailing list - no spam, we promise.


Email

Join

## Contact Details

1234 Wired Brain Blvd  
Awesome City, MM 55555

Phone: (123) 456-7890  
Hours: Monday - Friday: 6:00 AM to 9:00 PM



**WIRED BRAIN**  
COFFEE

Copyright © Wired Brain

Contact Info:

Phone: 555-555-1234  
Address: 1234 Test  
Email: Care@WiredBrain.com

Coffee Fact of the Day

More cups of coffee are drank every day than there are people on earth. *(May not be true)*



Razor Page



Layout File



```
<div class="product-widget">

@if(today == "Monday") {
    <p>Monday Widget</p>
}

@foreach(var product in products) {
    <p>@product.Name</p>
}

@{
    var sum = 1 + 2;
}

</div>
```

◀ Conditionally render different HTML content

◀ Loop through a list of products and print out their names

◀ Standard C# code block



```
<div>
  <label asp-for="Zipcode"></label>
  <div>
    <input asp-for="Zipcode" />
    <span asp-validation-for="Zipcode"></span>
  </div>
</div>
```

## Introducing Tag Helpers

Empower or replace standard HTML elements

Easily integrate with application context and data



```
<div class="widget">  
    // This syntax is discouraged in .NET Core  
    @Html.TextBoxFor(x => x.Name)  
</div>
```

## A Note on HTML Helpers

HTML Helpers are arguably becoming a legacy Razor feature

Tag Helpers are a more flexible, readable option



# Razor Pages Architecture

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# Understanding the Page Model

Two file approach



One file approach





```
@page
```

```
@model IndexModel
```

```
<div>
```

```
@foreach(var item in Model.Menu)
```

```
{
```

```
    <p>@product.Name</p>
```

```
}
```

```
</div>
```

◀ Required Razor Page directive

◀ Model directive declaring the associated class

◀ Access data properties on the Page Model and display them



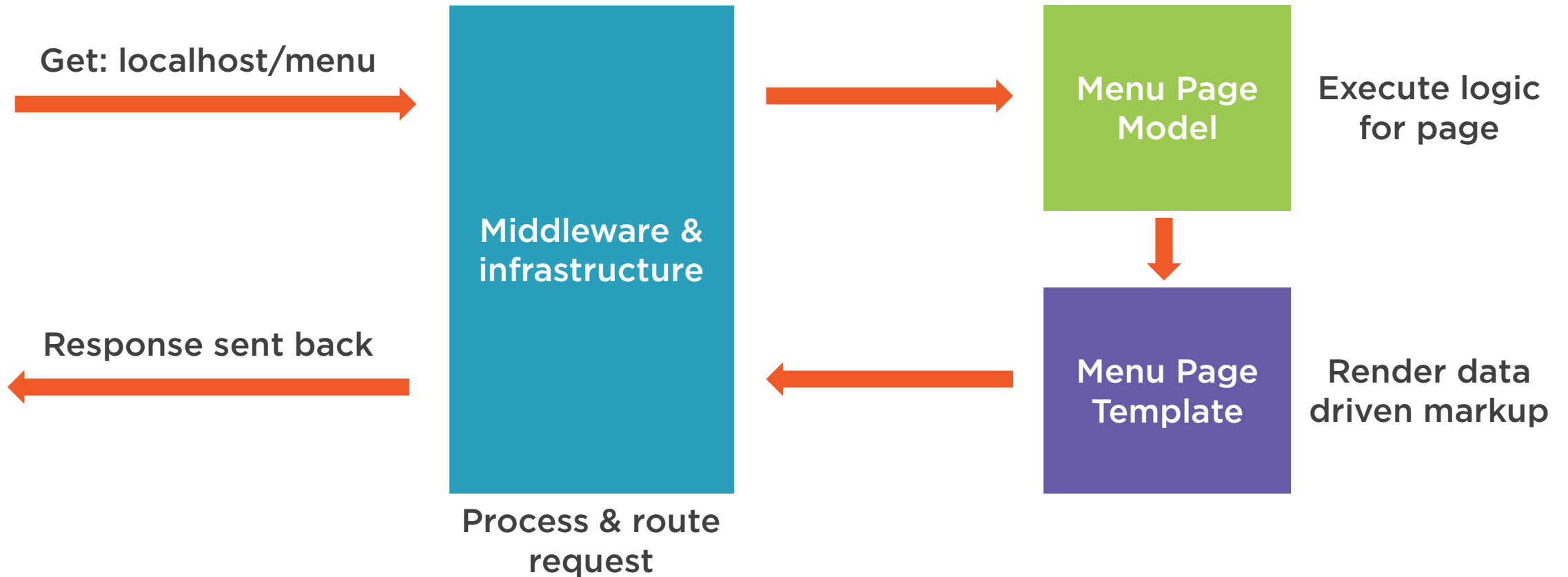
```
public class MenuModel : PageModel
{
    public List<string> Menu { get; set; }

    public void OnGet()
    {
        Menu = new List<string> {
            "Tacos", "Pizza"
        };
    }
}
```

- ◀ Inherit from PageModel base class
- ◀ Property accessible from the Razor template
- ◀ Setting some initial data on initial page load



# The Razor Pages Request Pipeline



# Editing and Compiling Razor Pages



Load web page



Make code changes



Refresh web page



# Touring the Sample Application

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# Github URL

<https://github.com/alex-wolf-ps/RazorPages>



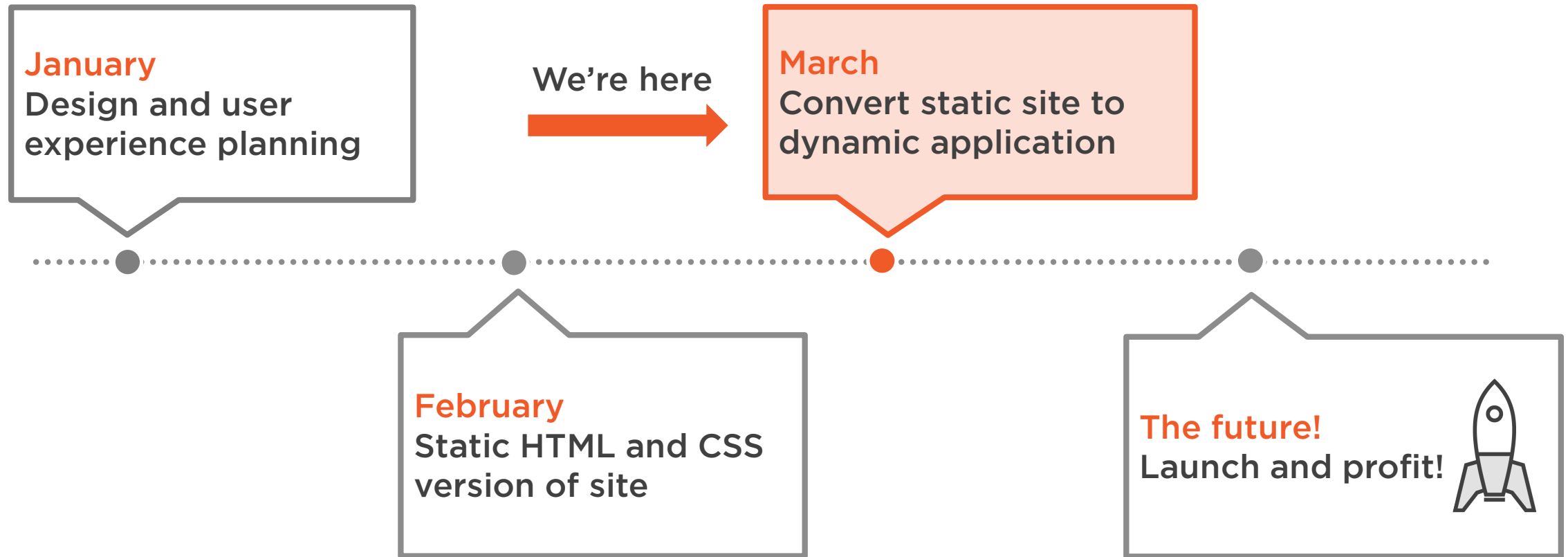


## The Wired Brain Coffee Company

- Looking to expand their online experience
- The business requires a simple but scalable web application



# The Wired Brain Application Timeline





# Demo



**Demo: Getting comfortable with Razor**



# Demo



## Demo: Touring the Sample Project



# Demo



## Demo: Working with your first Razor Page



## Summary



Razor provides a server side templating syntax to streamline page rendering

Razor Pages are a new subset of the MVC Framework in .NET Core 2.0

They provide a page oriented architecture in contrast from MVC

This pattern utilizes two files - one for markup, and one for C# logic

Razor Pages are designed to be fairly light weight and flexible

