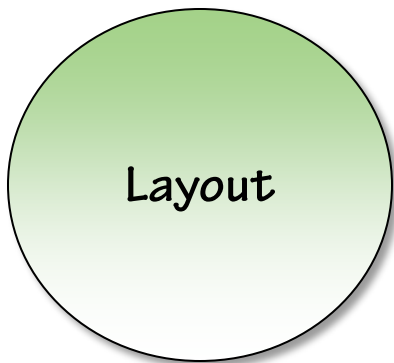# Building Applications with ASP.NET MVC
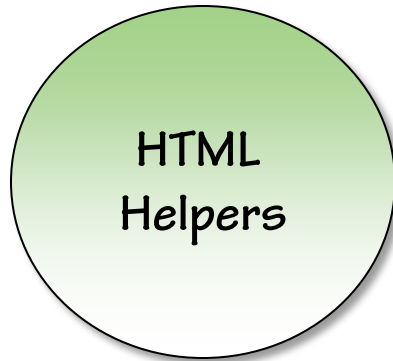
@{ Views }

K. Scott Allen

Syntax

Partial
Views

HTML
Helpers

Layout

XSS

Razor Templates

Template + **Data** = **Generated Output**
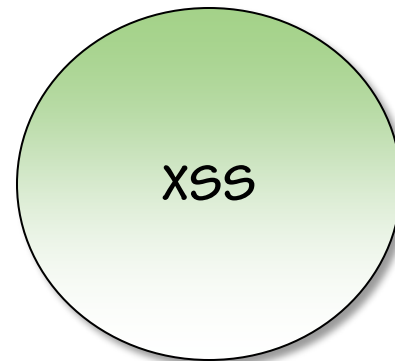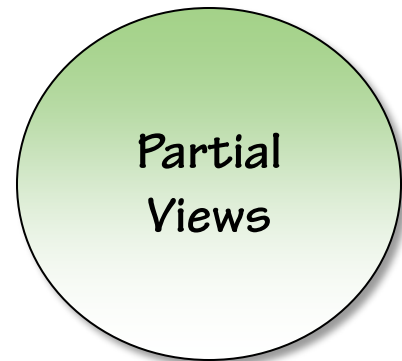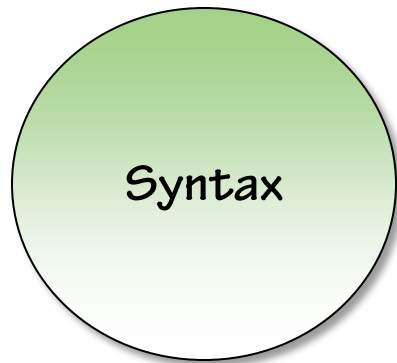
Layout with Razor

- **Use inherited methods to specify content areas**
  - RenderBody
  - RenderSection

```html
<!DOCTYPE html>
<html>
<head>
    <title>@ViewBag.Title</title>
    <script src="@Url.Content("~/Scripts/jquery-1.4.4.min.js")"
            type="text/javascript"></script>
</head>

<body>
    @RenderBody()
</body>
</html>
```
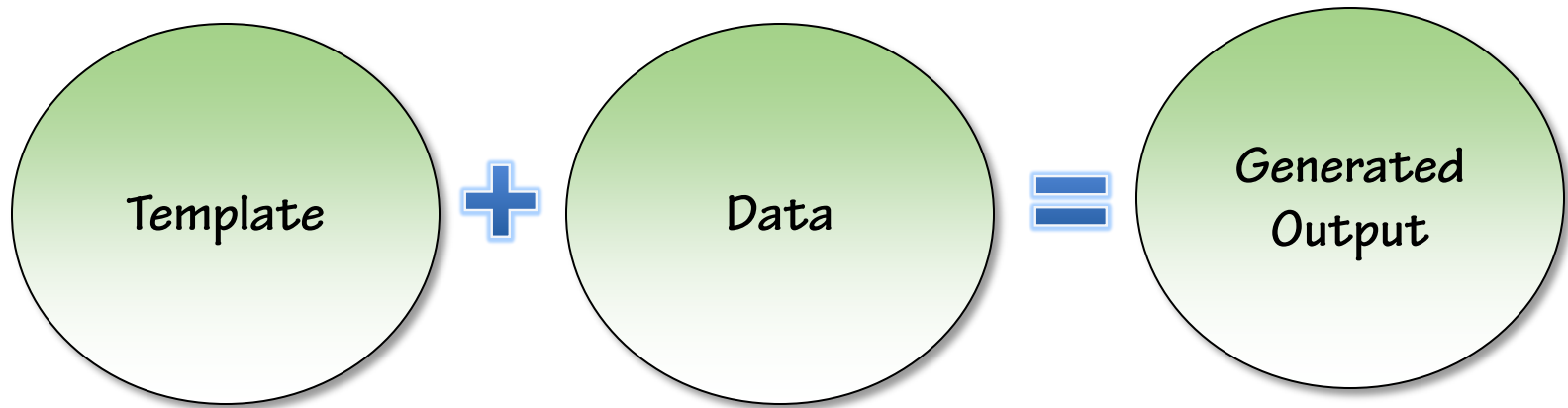
HTML Helpers

- **Html is a property of the ViewPage base class**
  - Create inputs
  - Create links
  - Create forms

```
@using (Html.BeginForm()) {

    @Html.ValidationSummary(true)

        <div class="editor-label">

            @Html.LabelFor(model => model.FirstName)

        </div>

        <div class="editor-field">

            @Html.EditorFor(model => model.FirstName)

            @Html.ValidationMessageFor(model => model.FirstName)

        </div>
```

Custom Helpers

- **Write extension methods for the HtmlHelper class**
  - Return string or override ToString method
  - TagBuilder manages closing tags and attributes
  - Add namespace in web.config
- **The place for complicated view logic**

```csharp
public static TagBuilder Image(this HtmlHelper helper,
                               string imageUrl, string alt)
{
    TagBuilder imageTag = new TagBuilder("img");
    imageTag.MergeAttribute("src", imageUrl);
    imageTag.MergeAttribute("alt", alt);
    return imageTag;
}
```

Partials

- **Partial views render portions of a page**
  - Reuse pieces of a view
  - Html helpers – Partial and Action
- **Razor partial views are still .cshtml files**

```razor
@foreach (var item in Model)
{
    @Html.Partial("_movieRecord", item)
}
```

```razor
@model Movie
<tr>
    <td>
        @Html.ActionLink("Edit", "Edit", new { id = this.Model.ID }) |
        @Html.ActionLink("Details", "Details", new { id = Model.ID })
    </td>
    <td>
        @Model.Title
    </td>
</tr>
```

Html.Action vs Html.Partial

- **Partial**
  - Use partials to reuse markup
- **Action**
  - Think "sub-request"
  - Let controller build sub-model, select partial view

```
@Html.RenderPartial("movieDetail", Model.Movie)
```

```
@Html.RenderAction("show", "weather", new { postalCode="21740" }
```
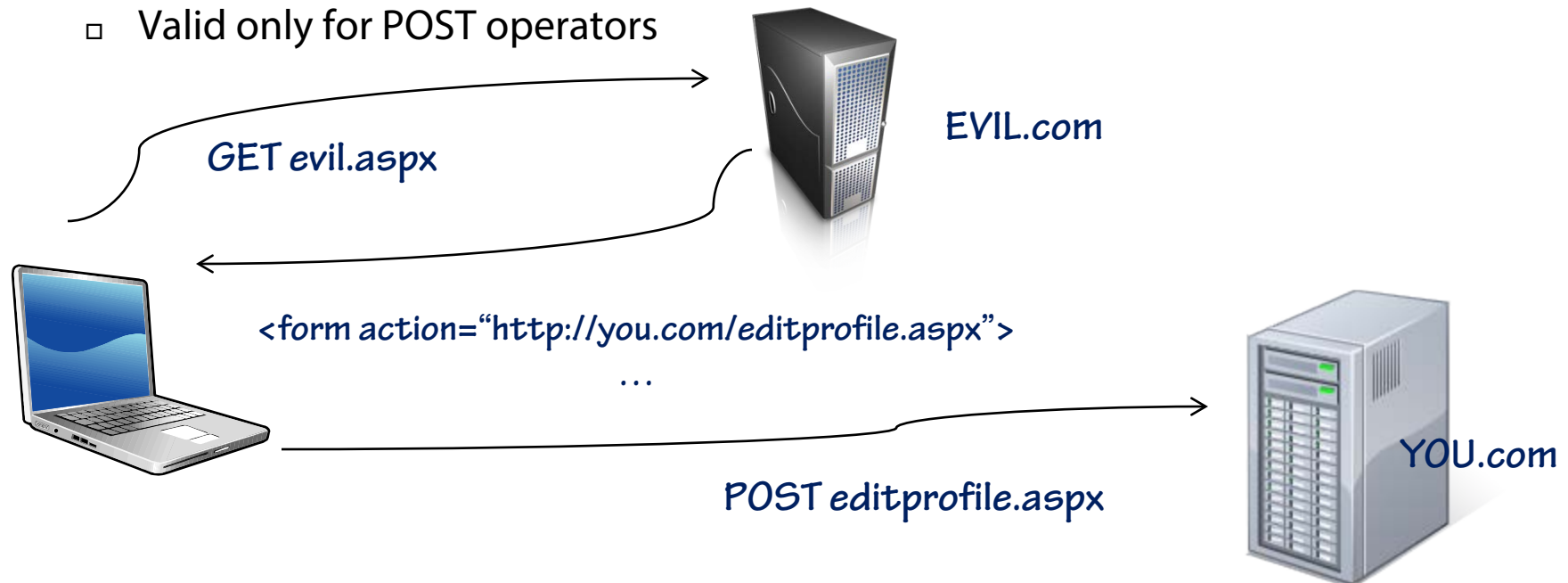
Security

- **Encoding**
  - Helps to avoid XSS attacks
  - Not encoding user input makes you particularly vulnerable
- **Html.AntiForgeryToken**
  - Helps to avoids CSRF attacks
  - Requires a ValidateAntiForgeryToken attribute on controller action
  - Valid only for POST operators

EVIL.com

GET evil.aspx

<form action="http://you.com/editprofile.aspx">
…

YOU.com

POST editprofile.aspx

Summary

Syntax

HTML Helpers

Partial Views

Layout

XSS