

.NET App Dev Hands-On Workshop

Lab 13 – MVC Views

This walks you through creating and/or updating the Views for the Cars Controller. Prior to starting this lab, you must have completed Lab 12.

Note: Adjust any directory separators to your OS (e.g. \ for Windows, / for Mac/Linux)

Part 1: The RazorSyntax View

- Create a new view named RazorSyntax in the Home and update it to the following:

```
@model Car
@{
    ViewData["Title"] = "Razor Syntax";
}

<h1>Razor Syntax</h1>

@for (int i = 0; i < 15; i++)
{
    //do something
}
@{
    //Code Block
    var foo = "Foo";
    var bar = "Bar";
    var htmlString = "<ul><li>one</li><li>two</li></ul>";
}
@foo<br />
@htmlString<br />
@foo.@bar<br />
@foo.ToUpper()<br/>
@Html.Raw(htmlString)
<hr />
@{
    @:Straight Text
    <div>Value:@Model.Id</div>
    <text>
        Lines without HTML tag
    </text>
    <br />
}

<hr/>
@*
    Multiline Comments
    Hi.
*@
Email Address Handling:<br/>
foo@foo.com = foo@foo.com<br/>
@@foo<br/>
```

```

test@foo = test@foo<br/>
test@(foo) = testFoo<br/>
<hr/>
@functions {
    public static IList<string> SortList(IList<string> strings) {
        var list = from s in strings orderby s select s;
        return list.ToList();
    }
}
-----
@{
    var myList = new List<string> {"C", "A", "Z", "F"};
    var sortedList = SortList(myList); //MyFunctions.SortList(myList)
}
@foreach (string s in sortedList)
{
    @s@:&nbsp;
}
<hr/>
@{
    Func<dynamic, object> b = @<strong>@item</strong>;
}
This will be bold: @b("Foo")

@Html.DisplayForModel()
@Html.DisplayForModel("CarWithColors")
<hr/>
@Html.EditorForModel()
<hr/>
<a asp-controller="Cars" asp-action="Details" asp-route-id="@Model.Id">@Model.PetName</a>

```

- Update the _Menu.cshtml partial view to include a menu item for the new view:

```

<li class="nav-item">
    <a class="nav-link text-dark" asp-area="" asp-controller="Home" asp-action="RazorSyntax">Razor
    Syntax <i class="fas fa-cut"></i></a>
</li>

```

- Add a new action method named RazorSyntax in the HomeController:

```

[HttpGet]
public IActionResult RazorSyntax([FromServices] ICarRepo carRepo)
{
    var car = carRepo.Find(1);
    return View(car);
}

```

Part 2: Update the Index View

- Update the Home/Index.cshtml view to use the DealerInfo passed in from the action method. Update the view to the following:

```
@model AutoLot.Services.ViewModels.DealerInfo
@{
    ViewData["Title"] = "Home Page";
}
<div class="text-center">
    <h1 class="display-4">Welcome to @Model.DealerName</h1>
    <p class="lead">Located in @Model.City, @Model.State</p>
</div>
```

Part 3: The Car Views

Step 1: The Partial and Template Views

- Create a new folder named Cars under the Views folder. In this folder, create three new folders, DisplayTemplates, EditorTemplates, and PartialViews.
- Add a new view named Car.cshtml under the View\Cars\DisplayTemplates folder. Update the markup to the following:

```
@model AutoLot.Models.Entities.Car
<dl class="row">
    <dt class="col-sm-2">@Html.DisplayNameFor(model => model.MakeId)</dt>
    <dd class="col-sm-10">@Html.DisplayFor(model => model.MakeNavigation.Name)</dd>
    <dt class="col-sm-2">@Html.DisplayNameFor(model => model.Color)</dt>
    <dd class="col-sm-10">@Html.DisplayFor(model => model.Color)</dd>
    <dt class="col-sm-2">@Html.DisplayNameFor(model => model.PetName)</dt>
    <dd class="col-sm-10">@Html.DisplayFor(model => model.PetName)</dd>
    <dt class="col-sm-2">@Html.DisplayNameFor(model => model.Price)</dt>
    <dd class="col-sm-10">@Html.DisplayFor(model => model.Price)</dd>
    <dt class="col-sm-2">@Html.DisplayNameFor(model => model.DateBuilt)</dt>
    <dd class="col-sm-10">@Html.DisplayFor(model => model.DateBuilt)</dd>
    <dt class="col-sm-2">@Html.DisplayNameFor(model => model.IsDrivable)</dt>
    <dd class="col-sm-10">@Html.DisplayFor(model => model.IsDrivable)</dd>
</dl>
```

- Add a new view named `CarWithColors.cshtml` under the `View\Cars\DisplayTemplates` folder. Update the markup to the following:

```
@model Car
<hr />
<dl class="row">
  <dt class="col-sm-2">@Html.DisplayNameFor(model => model.MakeId)</dt>
  <dd class="col-sm-10">@Html.DisplayFor(model => model.MakeNavigation.Name)</dd>
  <dt class="col-sm-2">@Html.DisplayNameFor(model => model.Color)</dt>
  <dd class="col-sm-10" style="color:@Model.Color">@Html.DisplayFor(model => model.Color)</dd>
  <dt class="col-sm-2">@Html.DisplayNameFor(model => model.PetName)</dt>
  <dd class="col-sm-10">@Html.DisplayFor(model => model.PetName)</dd>
  <dt class="col-sm-2">@Html.DisplayNameFor(model => model.Price)</dt>
  <dd class="col-sm-10">@Html.DisplayFor(model => model.Price)</dd>
  <dt class="col-sm-2">@Html.DisplayNameFor(model => model.DateBuilt)</dt>
  <dd class="col-sm-10">@Html.DisplayFor(model => model.DateBuilt)</dd>
  <dt class="col-sm-2">@Html.DisplayNameFor(model => model.IsDrivable)</dt>
  <dd class="col-sm-10">@Html.DisplayFor(model => model.IsDrivable)</dd>
</dl>
```

- Add a new view named `Car.cshtml` under the `View\Cars\EditorTemplates` folder. Update the markup to the following:

```
@model Car
<div asp-validation-summary="All" class="text-danger"></div>
<div>
  <label asp-for="MakeId" class="col-form-label"></label>
  <select asp-for="MakeId" class="form-control" asp-items="@ViewBag.LookupValues"></select>
  <span asp-validation-for="MakeId" class="text-danger"></span>
</div>
<div>
  <label asp-for="Color" class="col-form-label"></label>
  <input asp-for="Color" class="form-control"/>
  <span asp-validation-for="Color" class="text-danger"></span>
</div>
<div>
  <label asp-for="PetName" class="col-form-label"></label>
  <input asp-for="PetName" class="form-control" />
  <span asp-validation-for="PetName" class="text-danger"></span>
</div>
<div>
  <label asp-for="Price" class="col-form-label"></label>
  <input asp-for="Price" class="form-control"/>
  <span asp-validation-for="Price" class="text-danger"></span>
</div>
<div>
  <label asp-for="DateBuilt" class="col-form-label"></label>
  <input asp-for="DateBuilt" class="form-control"/>
  <span asp-validation-for="DateBuilt" class="text-danger"></span>
</div>
<div>
  <label asp-for="IsDrivable" class="col-form-label"></label>
  <input asp-for="IsDrivable" />
  <span asp-validation-for="IsDrivable" class="text-danger"></span>
</div>
```

- Add a new view named `_CarListPartial.cshtml` under the `View\Cars\Partials` folder. Update the markup to the following:

```
@model IEnumerable<Car>
@{
    var showMake = true;
    if (bool.TryParse(ViewBag.ByMake?.ToString(), out bool byMake))
    {
        showMake = !byMake;
    }
}
<p><item-create></item-create></p>
<table class="table">
    <thead>
        <tr>
            @if (showMake)
            {
                <th>@Html.DisplayNameFor(model => model.MakeId) </th>
            }
            <th>@Html.DisplayNameFor(model => model.Color)</th>
            <th>@Html.DisplayNameFor(model => model.PetName)</th>
            <th>@Html.DisplayNameFor(model => model.Price)</th>
            <th>@Html.DisplayNameFor(model => model.DateBuilt)</th>
            <th>@Html.DisplayNameFor(model => model.IsDrivable)</th>
            <th></th>
        </tr>
    </thead>
    <tbody>
        @foreach (var item in Model)
        {
            <tr>
                @if (showMake)
                {
                    <td>@Html.DisplayFor(modelItem => item.MakeNavigation.Name)</td>
                }
                <td>@Html.DisplayFor(modelItem => item.Color)</td>
                <td>@Html.DisplayFor(modelItem => item.PetName)</td>
                <td>@Html.DisplayFor(modelItem => item.Price)</td>
                <td>@Html.DisplayFor(modelItem => item.DateBuilt)</td>
                <td>@Html.DisplayFor(modelItem => item.IsDrivable)</td>
                <td>
                    <item-edit item-id="@item.Id"></item-edit> |
                    <item-details item-id="@item.Id"></item-details> |
                    <item-delete item-id="@item.Id"></item-delete>
                </td>
            </tr>
        }
    </tbody>
</table>
```

Step 2: Create the Index and ByMake views

- Add a new view named Index.cshtml to the Views\Cars folder and update the markup to the following:

```
@model IEnumerable<Car>
@{
    ViewData["Title"] = "Index";
}
<h1>Vehicle Inventory</h1>
<partial name="Partials/_CarListPartial" model="@Model"/>
```

- Add a new view named ByMake.cshtml to the Views\Cars folder and update the markup to the following:

```
@model IEnumerable<Car>
@{
    ViewData["Title"] = "Index";
}
<h1>Vehicle Inventory for @ViewBag.MakeName</h1>
@{
    var mode = new ViewDataDictionary(ViewData) {{"ByMake", true}};
}
<partial name="Partials/_CarListPartial" model="Model" view-data="@mode"/>
```

Step 3: Create the Details view

- Add a new view named Details.cshtml to the Views\Cars folder and update the markup to the following:

```
@model Car
@{
    ViewData["Title"] = "Details";
}
<h1>Details for @Model.PetName</h1>
@Html.DisplayForModel()
<hr/>
@*@Html.DisplayForModel("CarWithColors")*@
<div>
    <item-edit item-id="@Model.Id"></item-edit>
    <item-delete item-id="@Model.Id"></item-delete>
    <item-list></item-list>
</div>
```

Step 4: Create the Create view

- Add a new view named `Create.cshtml` to the `Views\Cars` folder and update the markup to the following:

[illegible]

Step 5: Create the Edit view

- Add a new view named `Edit.cshtml` to the `Views\Cars` folder and update the markup to the following:

```
@model Car
@{ ViewData["Title"] = "Edit"; }
<h1>Edit @Model.PetName</h1>
<hr />
<form asp-area="" asp-controller="Cars" asp-action="Edit" asp-route-id="@Model.Id">
    <div class="row">
        <div class="col-md-4">@Html.EditorForModel()</div>
    </div>
    <div class="d-flex flex-row mt-3">
        <input type="hidden" asp-for="Id" />
        <input type="hidden" asp-for="TimeStamp" />
        <button type="submit" class="btn btn-primary">Save <i class="fas fa-save"></i></button>&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&~
        <item-list></item-list>
    </div>
</form>
@section Scripts {
    <partial name="_ValidationScriptsPartial" />
}
```

Step 6: Create the Delete view

- Add a new view named `Delete.cshtml` to the `Views\Cars` folder and update the markup to the following:

[illegible]

Summary

The lab created the views for the CarsController.

Next Steps

The next lab creates an admin area for Make maintenance.