

.NET 9 App Dev Hands-On Workshop

Razor Lab 6 – Helper Components

This lab adds helper components to the `AutoLot.Blazor` project. Before starting this lab, you must have completed Blazor Lab 5.

Part 1: Add the Navigation Helpers

- Add a new directory named `Helpers` to the `AutoLot.Blazor` project. In this folder, add another new folder named `ItemHelpers`. In this folder, add a new Razor component named `CreateHelper.razor`. Clear out the contents and update it to the following:

```
<a href="/@RouteStart/create" class="text-success">
  Create <i class="fa-solid fa-plus"></i></a>
```

```
@code {
    [Parameter] public string RouteStart { get; set; }
}
```

- Add a new Razor component named `DeleteHelper.razor` to the `ItemHelpers` folder. Clear out the contents and update it to the following:

```
<a href="/@RouteStart/delete/@Id" class="text-danger">
  Delete <i class="fa-solid fa-trash"></i></a> |
```

```
@code {
    [Parameter] public int Id { get; set; }
    [Parameter] public string RouteStart { get; set; }
}
```

- Add a new Razor component named `DetailsHelper.razor` to the `ItemHelpers` folder. Clear out the contents and update it to the following:

```
<a href="/@RouteStart/details/@Id" class="text-info">
  Details <i class="fa-solid fa-info-circle"></i></a> |
```

```
@code {
    [Parameter] public int Id { get; set; }
    [Parameter] public string RouteStart { get; set; }
}
```

- Add a new Razor component named `EditHelper.razor` to the `ItemHelpers` folder. Clear out the contents and update it to the following:

```
<a href="/@RouteStart/edit/@Id" class="text-warning">
  Edit <i class="fa-solid fa-edit"></i></a> |
```

```
@code {
    [Parameter] public int Id { get; set; }
    [Parameter] public string RouteStart { get; set; }
}
```

- Add a new Razor component named `ListHelper.razor` to the `ItemHelpers` folder. Clear out the contents and update it to the following:

```
<a href="/@RouteStart/index" class="text-primary">
  Back to List <i class="fa-solid fa-list"></i></a>
@code {
  [Parameter] public string RouteStart { get; set; }
}
```

- Update the `_Imports.razor` file to include the new directory:

```
@using AutoLot.Blazor.Helpers
@using AutoLot.Blazor.Helpers.ItemHelpers
```

Part 2: Add the Car Helpers

- Add a new folder named `CarHelpers` under the `Helpers` folder. Add a new Razor component named `CarDetail.razor` to the `CarHelpers` folder. Clear out the contents and update it to the following:

```
<h1>Details for @CarInstance.PetName</h1>
<dl class="row">
  <dt class="col-sm-2">Make</dt>
  <dd class="col-sm-10">@CarInstance?.MakeNavigation?.Name</dd>
  <dt class="col-sm-2">Color</dt>
  <dd class="col-sm-10">@CarInstance?.Color</dd>
  <dt class="col-sm-2">Pet Name</dt>
  <dd class="col-sm-10">@CarInstance?.PetName</dd>
  <dt class="col-sm-2">Price</dt>
  <dd class="col-sm-10">@CarInstance?.Price</dd>
  <dt class="col-sm-2">Date Built</dt>
  <dd class="col-sm-10">@CarInstance?.DateBuilt?.ToShortDateString()</dd>
  <dt class="col-sm-2">Is Drivable</dt>
  <dd class="col-sm-10">@CarInstance?.IsDrivable</dd>
</dl>
@code {
  [Parameter]
  [EditorRequired]
  public Car CarInstance { get; set; } = default!;
}
```

- Add a new Razor component named CarEdit.razor to the CarHelpers folder. Clear out the contents and update it to the following:

```
<DataAnnotationsValidator/>
<ValidationSummary/>
<div>
  <label class="col-form-label" for="@nameof(Car.MakeId)">Make</label>
  <InputSelect class="form-control" @bind-Value="CarInstance.MakeId" id="@nameof(Car.MakeId)">
    @foreach (var item in Makes)
    {
      <option value="@item.Id">@item.Name</option>
    }
  </InputSelect>
  <ValidationMessage For="() => CarInstance.MakeId"/>
</div>
<div>
  <label class="col-form-label" for="@nameof(Car.Color)">Color</label>
  <InputText class="form-control" @bind-Value="CarInstance.Color" id="@nameof(Car.Color)" />
  <ValidationMessage For="() => CarInstance.Color"/>
</div>
<div>
  <label class="col-form-label" for="@nameof(Car.PetName)">Pet Name</label>
  <InputText class="form-control" @bind-Value="CarInstance.PetName" id="@nameof(Car.PetName)" />
  <ValidationMessage For="() => CarInstance.PetName"/>
</div>
<div>
  <label class="col-form-label" for="@nameof(Car.Price)">Price</label>
  <InputText class="form-control" @bind-Value="CarInstance.Price" id="@nameof(Car.Price)" />
  <ValidationMessage For="() => CarInstance.Price"/>
</div>
<div>
  <label class="col-form-label" for="@nameof(Car.DateBuilt)">Date Built</label>
  <InputDate class="form-control" @bind-Value="CarInstance.DateBuilt"
    id="@nameof(Car.DateBuilt)" />
  <ValidationMessage For="() => CarInstance.DateBuilt"/>
</div>
<div>
  <label class="col-form-label" for="@nameof(Car.IsDrivable)">Is Drivable</label>
  <InputCheckbox @bind-Value="CarInstance.IsDrivable" id="@nameof(Car.IsDrivable)" />
  <ValidationMessage For="() => CarInstance.IsDrivable"/>
</div>
@code {
  [Inject]
  private IMakeDataService MakeDataService { get; set; }
  [Parameter]
  [EditorRequired]
  public List<Make> Makes { get; set; }
  [Parameter]
  [EditorRequired]
  public Car CarInstance { get; set; } = default!;
}
```

- Add a new Razor component named `CarList.razor` to the `CarHelpers` folder. Clear out the contents and update it to the following:

```
<h3>Car List</h3>
<table class="table">
  <thead>
    <tr>
      <th>Make </th>
      <th>Color</th>
      <th>Pet Name</th>
      <th>Price</th>
      <th>DateBuilt</th>
      <th>Is Drivable</th>
      <th></th>
    </tr>
  </thead>
  <tbody>
    @foreach (var c in Cars)
    {
      <tr>
        <td>@c.MakeNavigation.Name</td>
        <td>@c.Color</td>
        <td>@c.PetName</td>
        <td>@c.Price</td>
        <td>@c.DateBuilt?.ToShortDateString()</td>
        <td>@c.IsDrivable</td>
        <td>
          <EditHelper Id="@c.Id" RouteStart="cars"/>
          <DetailsHelper Id="@c.Id" RouteStart="cars"/>
          <DeleteHelper Id="@c.Id" RouteStart="cars"/>
        </td>
      </tr>
    }
  </tbody>
</table>
@code {
  [Parameter][EditorRequired]
  public List<Car> Cars { get; set; }
}
```

- Update the `_Imports.razor` file to include the new directory:

```
@using AutoLot.Blazor.Helpers.CarHelpers
```

Summary

This lab added navigation and template helpers to the client application.

Next Steps

The following lab will finish the Car pages.