Lab: Designing ASP.NET Core Web Applications

Scenario

Your team has chosen ASP.NET Core Razor Pages as the most appropriate ASP.NET programming model to create the photo sharing application for the Adventure Works web application. You need to create a detailed project design for the application, and have been given a set of functional and technical requirements with other information. You have to plan: - A model that you can use to implement the desired functionality. - One or more Razor Pages that respond to users actions. - The locations for hosting and data storage.

Objectives

After completing this lab, you will be able to: - Design an ASP.NET Core Web Application that meets a set of functional requirements. - Record the design in an accurate, precise, and informative manner. Estimated Time: 40 minutes

Exercise 1: Planning Model Classes

Scenario

You need to recommend a model that is required to implement a photo sharing application. You will propose model classes based on the results of an initial investigation into the requirements. The main tasks for this exercise are as follows: - Examine the initial investigation. - Plan the photo model class. - Plan the comment model class.

Task 1: Examine the initial investigation.

- Open the `InitialInvestigation` document by using the following information:
  - File location: `Labfiles\Mod02\01_DesignProject_begin`

2. Enable the Navigation Pane feature.
3. Read the contents of the `Introduction` section.
4. Read the contents of the `General Description` section.
5. Read the Use Cases section and then examine the `Use Case Summary` diagram.
6. Close the `InitialInvestigation` document.

Task 2: Plan the photo model class.

1. Open the `DetailedPlanningDocument` document and locate the `Model` section.
2. Based on your reading of the `InitialInvestigation` document, add and describe the `Photo` model classe in `Table 1: Model`.
3. Add properties to the model you created in `Table 1: Model`. The model will have many properties
4. Add data types to the properties. Each property will have one and only one data type.

Task 3: Plan the comment model class.

1. Open the `DetailedPlanningDocument` document and locate the `Model` section.
2. Based on your reading of the `InitialInvestigation` document, add and describe a model class for `Comment` in `Table 1: Model`.
3. Add properties to the model class you created in `Table 1: Model`.
4. Add data types to the `Comment` properties.
   Results: After completing this exercise, you will be able to create proposals for a model, and configure the properties and data types of the model classes.

Exercise 2: Planning Pages

Scenario

You need to recommend a set of Pages that are required to implement a photo sharing application. You will propose Pages based on the results of an initial investigation into the requirements. The main tasks for this exercise are as follows: 1. Plan the `Photo` Pages. 2. Plan the Comment Web API Controller and Blazor Components.

Task 1: Plan the photo Pages.

1. Open the `DetailedPlanningDocument` document and locate the Razor Pages section.
2. Based on your reading of the `InitialInvestigation` document, add the pages for photos in `Table 2: Razor Pages`.
3. Add handlers to the pages for photos in `Table 2: Razor Pages`.
4. Add descriptions for each of the handler you have planned.

Task 2: Plan the comment Api controller.

1. Based on your reading of the `InitialInvestigation` document, add a controller for photos in `Table 2: Api Controllers`.
2. Add actions to the controller for Comments in `Table 2: Api Controllers`.
3. Add descriptions for each of the actions you have planned.

Task 3: Plan the Blazor Components.

1. Based on your reading of the `InitialInvestigation` document, add the Blazor Components in `Table 3: Blazor Components`.
2. Add descriptions for each of the component you have planned. Results: After completing this exercise, you will be able to create proposals for models, pages, controllers and components and configure their properties and data types.

Question: What model classes should be created for the photo sharing application based on the initial investigation?

Question: What controllers should be created for the photo sharing application based on the initial investigation?

Question: What pages should be created for the photo sharing application?