Lab: Developing ASP.NET MVC Core Models

# Scenario

You are planning to create and code an MVC model that implements your plan for photos and comments in the Adventure Works photo sharing application. The model must store data in a SQL database and include properties that describe photos, comments, and their content. The model must enable the application to store uploaded photos together with their properties and delete them in response to user requests.

This is the schema of the models for your application

**PHOTO**

+ Id: int { get; set; }

+ Title: string { get; set; } [Required]

+ PhotoFile: byte[] { get; set; } [DisplayName("Picture")]

+ ImageMimeType : string { get; set; }

+ Description: string { get; set; } [DataType(DataType.MultilineText)]

+ CreatedDate : DateTime { get; set; } [DataType(DataType.DateTime), DisplayFormat(DataFormatString ="{0:dd/MM/yy}", ApplyFormatInEditMode =true)]

+ UserName : string { get; set; }

+ Comments : virtual List<Comment> { get; set; }

**COMMENT**

+ Id : int { get; set; }

+ PhotoId : int { get; set; }

+ UserName : string { get; set; }

+ Subject : string { get; set; } [Required, StringLength(250)]

+ Body : string { get; set; } [DataType(DataType.MultilineText)]

+ Photo : virtual Photo { get; set; }

# Objectives

After completing this lab, you will be able to:

* Create a new ASP.NET MVC Core project in Visual Studio.
* Add new models to the ASP.NET MVC Core web application and add properties to the models.
* Use display and edit data annotations in the MVC models to assign property attributes to views and controllers.
* Add Entity Framework code to persist your models into a SQL database.
* Use Tools to generate migrations
* Seed some initial data.
* Ensure that the database gets created during startup.

**Estimated Time**: 40 minutes

**Results**: After completing this exercise, you will be able to create an ASP.NET MVC Core Web Application that uses a SQL Database as its data store. Your database will have two tables and some data. In the next lab you are going to write a Controller that makes use of your PhotoSharingApplicationContext.

**Question**: You are building a site that collects information from customers for their accounts. You want to ensure that customers enter a valid email address in the Email property. How would you do this?

**Question**: You have been asked to create an intranet site that publishes a customer database, created by the sales department, to all employees within your company. How would you create the model with Entity Framework?