

Assignment 1 [16 total marks]

Create a new C# MVC Project with Individual User Accounts for authentication, named PetShop.

[2] Create a new Model called 'Pet.cs' with 5 properties;

- int ID
- string Name
- bool isMale
- string Breed
- ApplicationUser Owner

Scaffold the new Model to create a PetsController.cs and all its associated views.

[2] Add two properties to the ApplicationUser model;

- Collection<Pet> Pets
- DateTime DateofBirth

Add a new Claim to the user for the DateofBirth.

Hint: There is already a ClaimsType.DateofBirth

[1] Create a DataInitializer to create an "Admin" Role

A test user (who is over 18 years old, ie DateofBirth = Jan 01 2000) with the admin role

A pet who does not have an owner

A pet who is owned by the test user.

(You can use DropCreateDatabaseAlways once to initialize your database and data, and then switch the Initializer to DropCreateDatabaseIfModelChanges to stop it from dropping every consecutive run)

[1] Change the action 'Index' in the PetsController to return only unadopted pets (The Owner property is null)

[2] Add Authorization attributes to the PetsController to allow anonymous users to access the Action Index, but the rest of the CRUD (Create Replace Update Delete) Actions require the 'Admin' role. We only want administrators adding Pets to our system.

[1] Create a new Action in PetsController called 'MyPets'. It will query the Pets DbSet and return a view to display all the pets that the user is the owner of. This action will require the user to be logged in.

[1] Create the view for the MyPets Action (MyPets.cshtml).

(Hint: Use the Pet Model and View type of list. This will generate a view that by default displays a list of Pets. Remove the ActionLinks to the CRUD actions from the generated view).

[4] Create two new Actions in the PetsController called 'Adopt'. One 'Adopt' action will be a default Http.Get request that takes an int? id of a Pet (the question mark denotes the id can be null), and return a view, passing in the Pet as a model.

The second 'Adopt' will use the Http.Post protocol and take in a Pet model as parameters. It will add the Pet to the current users Pets, and redirect to the 'MyPets' Action.

Both Adopt Actions should require the user to be Authenticated. The Latter Adopt function (Http.Post) should require the user to be at least 18 year's old (Hint; Get the users DateofBirth claim and calculate their age)

[1] Create the view for the Adopt Action (Adopt.cshtml). This will just display a single pet's information. Include an ActionLink that says "confirm adoption", that makes an Http.Post request to the Adopt action, passing the Pet Model as a Route Value.

(Hint: Use the Pet Model and View Type of Details)

[1] In the Pet view Index.cshtml, add an ActionLink to our newly Created Adopt Action **only if** the user is authenticated. Make the rest of the ActionLinks (ie, new, edit) only display for administrators.