Assignment 2 [14 total marks]

# This Assignment will build on top of the PetStore solution from Assignment 1. You can use your solution, or you could use the uploaded solution.

Create two folders in the PetStore solution;

* Attributes
* Services

**[3 points]** Create a new class in Attributes called ‘NonNegativeAttribute’. This attribute must inherit the class ‘ValidationAttribute’.   
Create a constructor for NonNegativeAttribute that takes in no parameters, invokes the base constructor, and passes an error message “Number cannot be negative”.   
Finally, override bool IsValid(object value), return true if the value is above 0, return false otherwise.

**[3 points]** Create a new class in Attributes call ‘NoDigitsAttribute’. This attribute must inherit the class ‘ValidationAttribute’.   
Create a constructor for NoDigitsAttribute that takes in no parameters, invokes a base controller and passes an error message “No numbers allowed!”.   
Finally override bool IsValid(object value), cast value to a string. Return true if the string has no digits, return false otherwise

**[2 points]** Add the NoDigitsAttribute to your Pet.Name property.   
Add a new integer property to Pet called Age. Add the NonNegativeAttribute to Pet.Age.

**[2 points]** Create a new class called PetService inside the newly created Services folder. It should have a private ApplicationDbContext variable.   
Create a constructor for PetService that has no parameters, and will set the private ApplicationDbContext variable to a new instance of ApplicationDbContext.   
Create another constructor that will take in one parameter, ApplicationDbContext, and set the private variable to the parameter.

**[1 point]** Create a public function inside PetService called OldEnoughToAdopt. Have it take in one parameter of type DateTime, and return whether or not that DateTime is over 18 years old.

**[1 point]** Add a new Unit Test (.Net Framework) C# project to the solution called PetStore.Tests.

**[2 points]**Create a class called PetServiceTests. This class must contain two Unit tests, a positive and negative test for PetService.OldEnoughToAdopt (in other words, one test proves the function returns true when the parameter is over 18, and a test proving the function returns false when the parameter is below 18).