Developer Interview Coding Exercise

# Overview

We expect about 4 hours of work to be spent on this project. **Please do not feel pressured to submit a project that is fully complete**. We understand this exercise could entail more than four hours of work; we are more interested seeing your workflow and getting some insight into your skill-level.The project consists of two pages: A User page containing a form for adding and editing a User, and a List page that will display the created Users in a table.  
  
Rough mockups of each page are provided, as well as some validation requirements for the User page. We’ve also created a template project using .NET 5 (available in the Exercise 1 folder), the platform we use for our applications.  
  
If you have expertise in another platform, please feel free to use it -- the exercise is about showing us your skill level, so we would rather see a well-executed project using a different platform than a poorly-executed one using ours.  
  
If necessary, you can find a free version of the Microsoft Visual Studio IDE [here](https://visualstudio.microsoft.com/vs/community/).  
Recommended frameworks and plugins:

1. .NET 5\* (template project provided)
2. CSS: Bootstrap 5\* (included in template project); If you have expertise in a different framework, please feel free to use it
3. Validations: [Data Annotations](https://docs.microsoft.com/en-us/aspnet/core/mvc/models/validation?view=aspnetcore-5.0)\*, [Fluent Validations](https://docs.fluentvalidation.net/en/latest/aspnet.html)
4. Table: [DataTables](https://datatables.net/)\*
5. Logging: [Serilog](https://serilog.net/)\*

\*These recommended items are regularly used in our production applications.

The priorities we have for a submitted project, from highest to lowest:

1. Uses best practices in regard to code that is efficient, readable, and shows expertise with the tools used
2. What is submitted is functioning and free of bugs/defects; we would rather see a User page that submits and saves than two pages that are not functional.
3. Looks similar or better than the provided mockup and meets the given validation requirements.

Bonus points for:

1. Using recommended frameworks and plugins
2. Client and server-side validations
3. Auto-populating the State and County fields after entering a valid ZIP Code
4. Adding a check that the Email does not already exist
5. Adding a delete button on the list page
6. Adding logging

# Validation Requirements

1. Username – Required, Unique, Max 8 characters; generated on add.
2. FirstName – Required, Max 50 characters.
3. LastName – Required, Max 50 characters.
4. JobTitle - Required, Max 25 characters.
5. PhoneNumber – Required, Must be a valid phone number format.
6. JobDescription – Required, Max 200 characters.
7. Email – Required, Must be valid email format.

# Mockups

Can be found in the same folder as this file. Mockups are a guideline, not a strict requirement. Feel free to make design alterations.

# Recommended Workflow

In order from left (highest) to right (lowest):   
  
**User page** à **List page**  
Individual Pages:

* **User page** à Form structure à Form submitting and saving à Add validations à Add logging à Add styling and responsiveness
* **List page** à Table structure à Table displaying data accurately from the database à Add styling and responsiveness à Add features (Edit, Delete)