**Objective:**

To design and develop a software solution that showcases your software development skills and capabilities.

Please use your creativity and experience to show as many of your skills as possible. The requirements are deliberately vague to give you the flexibility of coming up with your own unique solution and to allow you to focus on the areas of your strengths.

Aspects to note:

* A lot of emphasis will be on your familiarity with modern C# and Dotnet development, tooling, and techniques
* A lot of emphasis will be on your familiarity with modern JavaScript development, tooling, and techniques
* There is no required design from our side - however, aesthetic and experience are important and should be considered accordingly
* Best-practices and standards should be portrayed in your file organization, methods, naming conventions etc.
* Your ability to execute the required task

**Estimated completion time (skill dependent):** ~ 10 to 12 hours

**MVP:**

You are required to design and develop an address book system to keep track of your contact entries.

The system must compromise a Web application, REST API, and SQL Database.

The system must contain the following functions:

* Display all Contact entries in the system
* Search for Contacts by any field
* Create, Update and Deleting of Contacts
* Query Country, state, and city data from an online REST API of your choice

A Contact must contain the following properties:

* First Name
* Surname
* Age and Birthday
* Telephone numbers incl. Country Code
* Addresses incl. Country/State/City

**Bonus MVP:**

The system shall allow duplicate Contacts to be detected and merged

The system shall allow Contacts to be imported and exported via a delimited text file

The system shall allow Contacts to be filtered by Age or Next birthday

**Design considerations/limitations:**

The web application must use either of the following:

* ASP.Net MVC
* ASP.Net Core MVC
* ASP.Net Core Razor
* Blazor

The web application must be based on responsive design.

The REST API must use either of the following for Data Layer if you are using SQL Server or, any appropriate ORM technology if you decide to use a non-relational DB

* Entity Framework
* EF Core

You may any packages or libraries of your choosing.

Your solution must contain unit tests

Push your solution to a public Git repository along with detailed instructions on how to build and run your application within the README file

Once complete, a link to your submission along with any other resources should be emailed to us

**Are there any other considerations?**

Here are some of the things we use and like - only to keep in mind, of course

* We always consider responsiveness, scalability, maintainability, and simplicity in our designs
* We always go above and beyond
* We do IT right the first time
* We value security
* We like containerisation
* We like clean and readable code

**Closing**

Thank you for taking the time to complete this test. We look forward to your submission.