

## **Coding Challenge**

## Your Task

You have been asked to develop an address book that allows a user to store (between successive runs of the program) the name and phone numbers of their friends, with the following functionality:

- To enter a friends name and phone number using a form with input validation
- To display the list of friends and their corresponding phone numbers sorted by their name.
- Given another address book that may or may not contain the same friends, display
  the list of friends that are unique to each address book (the union of all the relative
  complements). For example given:

```
Book1 = { "Bob", "Mary", "Jane" }
Book2 = { "Mary", "John", "Jane" }
```

The friends that are unique to each address book are:

```
Book1 \ Book2 = { "Bob", "John" }
```

## Instructions

Please provide relevant source code of your implementation and any documentation and additional assumptions that you feel are appropriate. Please use the following information to assist you completing the challenge successfully:

- Impress us with "Clean Code", that's readable and maintainable
- Don't reinvent the wheel, use existing frameworks to keep the code short and sweet
- You want to claim yourself as a full stack developer, prove it by adding a UI component
- We are mainly into Java and ReactJS, but feel free to use any language that you're familiar with
- We're big into the KISS (Keep it simple stupid) principle, so please don't spend more than 8 hours on this
- Can't finish if fully? Don't worry, just submit what you have.
- Guide us on your assumptions and decisions with some documentation, so that we know how to use your solution and its limitations.
- The application must run and be easy to build from source. It also must be easy to execute for us to determine if the application meets the requirements.