



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 be able 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 with completing the challenge successfully:

- The intent of the challenge is to provide us with an opportunity to judge your problem solving, design and development skills. It is important to provide a solution that highlights your skills in these areas.
- Develop the system in Java or Node.js.
- Your solution should be high quality, well annotated, and include tests.
- The system should persist information; how you do this is completely up to you, and you don't have to use a database.
- The simplest solution is often the best. You will be given at least 48 hours' notice to complete this task, but it is recommended that no more than 8 hours is spent on the problem.
- If you can't complete the task in 8 hours reprioritise the functional requirements and deliver a working version of what you have managed to solve.
- 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 above requirements.