Technical Test

NETDUMA

2020

1   Introduction

Your task will be to write a command line address book in your preferred language. Where possible, please avoid using external libraries as we want to see **your** code, not your ability to integrate libraries. Libraries that come with the language are permitted, but if any functionality built by you will always impress us more. For example, using the STL Library in C++ is completely fine.

You will have three to four hours to complete the task. Once time is up, you should send us your code. You should also include a README with your submission which explains:

- Any issues you encountered and the impact it had on your task e.g. bugs, missing functionality, lost time etc.
- If you were to have 1-2 weeks on this task, what would you do to improve the program

While writing the program you should keep the following things in mind:

- Ensure all code is tested.
- Ensure the specification is being adhered to.

2   Specification

The following functionality should be implemented into your program:

- Ensure all inputs are appropriately validated.

- Method to add a person to the address book. Each person's record should include:

  - First name

  - Other names

  - Email address

  - Telephone number

  - Address. An address should contain the following things:
    * Street
    * Town
    * Country

- Method to remove a person from the address book.

- Method to search for a person in the address book. The user should be able to search via:

- First name

- Other names

- Email Address

- Telephone number

- Town

- Country

- The program, on exit, should write the records to a file. The records should then be reloaded when the program is executed again.

For extra credit, your program should be able to handle a large number of entries. To do this, you will need to optimise the search. You should attempt this without using a library (write it from scratch).