

# User Guide Document.

---

This is the **user guide document** which is part of the code challenge deliverables.

Please note that other deliverables are also provided. This includes the following deliverables:

1. Bill of materials (BOM) document.
2. API documentation.
3. Class hierarchy, scope and purpose document.
4. Functionality test cases

## Executing the app

---

The application can be executed in one of two modes depending on the flag which was passed in. These modes are controlled by certain flags.

`-s` or `--store` : Indicates that you want to run the program in storage mode. In storage mode, the name and phone number is persisted to `book.json`. This serves as a persistent database object which is then used for successive runs.

`-u` or `--union`

## Executing the app in storage mode

### Execution syntax

```
java <-classpath|-cp> [-s] <contact name> <contact number>
```

or

```
java <-classpath|-cp> [--store] <contact name> <contact number>
```

### Argument specification:

`-s` or `--store`: These are flags which specifies the mode in which you want to execute the program.

`contact name`: The contact owner name.

`contact number`: the contact number.

### Execution script

```
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar -s Joshua 0479109809
```

or

```
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --store Joshua 0479109809
```

## Please note the following about the above command

The raw input passed in from command line is first parsed and validated by the [InputValidationParser](#).

1. `--store Joshua 0479109809` is space separated.
2. `0479109809` contact numbers can only contain numeric digits. That is, anything within this regex bounds `^[0-9]+$`. Anything outside this bounds would throw a [InvalidPhoneNumberException](#).

Executing any of the above command will yield the following logs written to terminal. Please notice this in the `Joshua 0479109809` last line. This was the contact number which was added.

```
$ java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --store Joshua
0479109809
2019-03-15 21:23:14,358 INFO    Running address book app in store mode
2019-03-15 21:23:14,416 INFO    Added new contact Contact{name='Joshua',
phoneNumber='0479109809'}
2019-03-15 21:23:14,416 INFO    Displaying contact numbers ordered by name.
Joshua 0479109809
```

## Consecutive batch execution.

Executing this command in batches will persist each individual contact to database and display the list of contacts in ascending order by name.

```
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --store Adam 04897654367
&&
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --store Zoe 09864567 &&
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --store Jenny 1890876
```

You will see the following logged to terminal.

```
2019-03-15 21:47:38,799 INFO    Running address book app in store mode
2019-03-15 21:47:38,859 INFO    Added new contact Contact{name='Jenny',
phoneNumber='1890876'}
2019-03-15 21:47:38,859 INFO    Displaying contact numbers ordered by name.
Adam 04897654367
Jenny 1890876
Joshua 0479109809
Zoe 09864567
```

## Executing the app in union mode

### Execution syntax

```
java -jar <classpath> [-u] {name:phoneNumber}
```

### Execution script

```
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --union "{Jenny:098765667,Asha:908654}"
```

or

```
java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar -u "{Jenny:098765667,Asha:908654}"
```

### Argument specification:

**-u or --union:** These are flags which specifies the mode in which you want to execute the program.

**"{Jenny:098765667,Asha:908654}":** JSON formatted address book 2.

### Please note the following about the above command

The raw input passed in from command line is first parsed and validated by the [InputValidationParser](#).

1. "{Jenny:098765667,Asha:908654}" is enclosed in double quotes.
2. It contains **name:phoneNumber** pairs.
3. Each pair is separated by a comma.

You will see the following logged to terminal on successful execution.

```
$ java -jar dist/code-challenge-0.0.1-SNAPSHOT.jar --union "{Jenny:098765667,Asha:908654}"
2019-03-15 22:00:28,783 INFO  Running address book app in union mode
2019-03-15 22:00:28,842 INFO  Displaying unique entries
Book 1/Book 2: {Adam=04897654367, Asha=908654, Joshua=0479109809, Zoe=09864567}
```