

William Ryan Kusnadi - Project Portfolio for ORGaNice

About the project

My team and I developed ORGaNice during our 2nd year of our Computer Science degree in National University of Singapore for our Software Engineering Project. ORGaNice is a desktop application for hospital administration staff who prefer to use Command Line Interface applications to manage organ transplants. The purpose of this project portfolio is to demonstrate my contribution to the project as well as to the user and developer guides

This is what our project looks like:

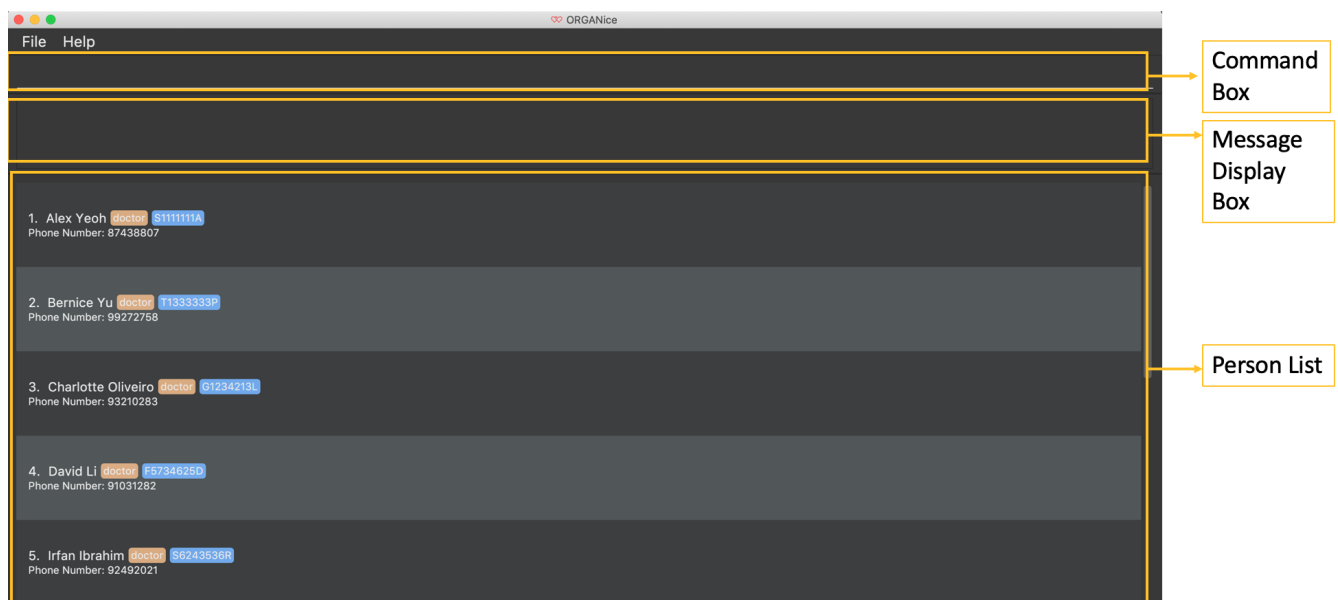


Figure 1. The graphical user interface for ORGaNice

Below is the list of main features that are available in our application:

- Form mode feature
- Matching feature
- Sorting feature
- Finding feature
- Processing feature

Summary of contributions

Below are the summary of my contributions for this project which include feature enhancements, project management, and documentation.

- **Major enhancement:** Added **the ability to add a person with form mode**.
 - What it does: Allows user to add a person by typing each attribute one at a time.
 - Justification: This feature improves the product significantly because a user can ensure that he/she enter the person's attributes correctly which is essential for an application that will be used in a hospital.
 - Highlights: This feature includes other special commands such as 'undo' if the user typed in a wrong input and **Find Match** button so that the user can click on this button to directly find the potential donor for a patient without typing another command.
- **Code contributed:** [Code contributed](#)
- **Other contributions:**
 - Project management:
 - Managed releases **v1.1** - **v1.4** (4 releases) on GitHub
 - Enhancements to existing features:
 - Helped to integrate basic feature such as adding, editing, and deleting to different type of person(Pull requests [#107](#) [#260](#))
 - Documentation:
 - Added a guide for user to understand the form mode feature to User Guide: [#148](#)
 - Added a guide for developer to understand how classes interact among each other in the form mode feature to Developer Guide: [#154](#)
 - Community:
 - PRs reviewed (with non-trivial review comments): [#113](#), [#176](#), [#155](#)
 - Tools:
 - Integrated a github plugin (TravisCI) and update Coveralls badge to the project ([#7](#))

Contributions to the User Guide

Given below are sections I contributed to the User Guide. They showcase my ability to write documentation targeting end-users.

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Form mode

In this mode, instead of typing a long command at one go, you can add a person's attribute one by one. After entering an attribute, the system will prompt you to input another attribute.

To add a person in this mode, enter the following command of the format: **add t/TYPE**

ORGANice will prompt you to type in each attribute, one by one until all the fields are filled. Here are some special commands that might be useful when you are in the process of filling up the form:

- **/abort** - The command to abandon the current form that you are currently filling.

- **/undo** - The command to undo the last entry that you entered, which is useful when you want to undo any changes made.
- **/done** - The command to indicate that you are done with filling all the required attributes and want to add the person into the application.
- **/exit** - The command to exit the application.

Note that **/exit**, **/abort**, and **/undo** commands can be used at any point in time, while **/done** command can only be used once all the required attributes have been filled.

These are the important commands for this feature, so now let's take a look at an example on how you can use this feature. Let's say you want to add a patient to the application. You should type **add t/patient** in the **Command Box**. Three changes will occur on your screen:

1. A form will appear in the space where the Person List used to occupy.
2. The Message Display Box will display a message that prompts you to enter the patient's name.
3. There is a Progress Bar detailing your progress in filling up the form.

Refer to the Figure 4 to see how the resulting screen will look like.

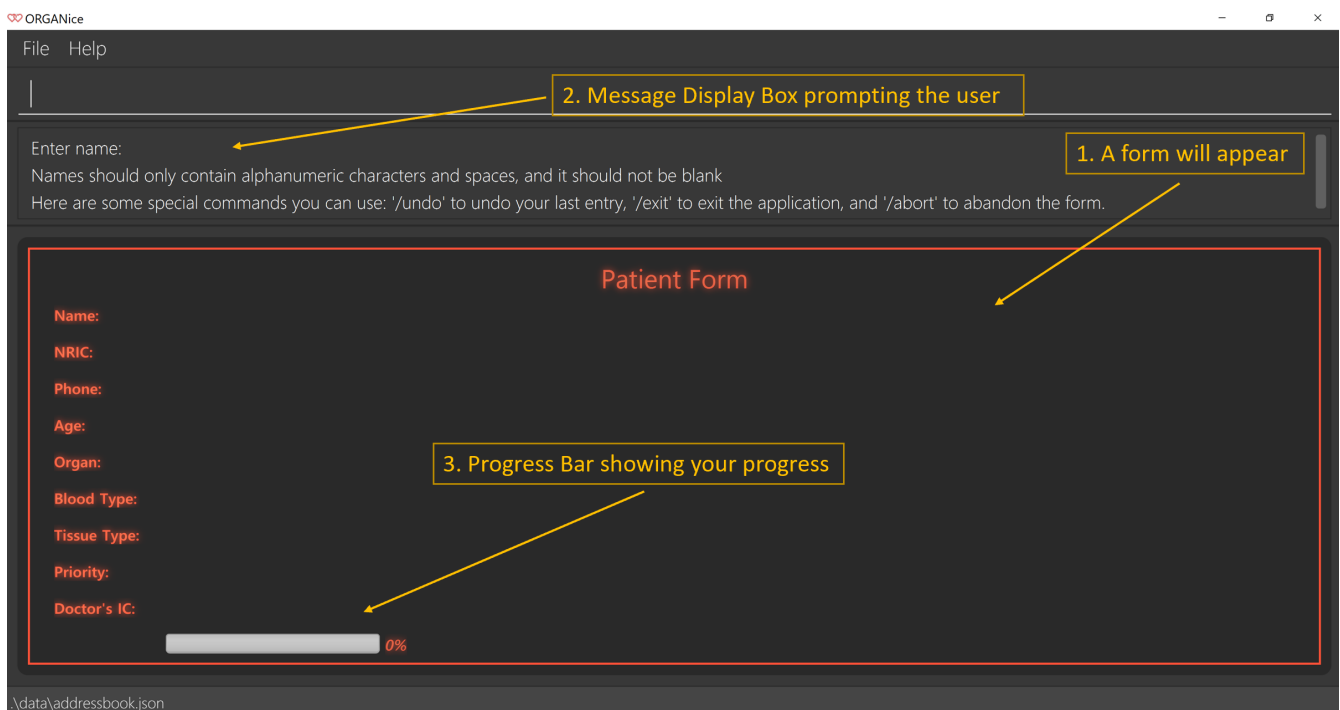


Figure 2. Screenshot of the screen after you have successfully entered the form mode

If you want to add a patient named "John Doe", type **John Doe** and then press **kbd:[Enter]**. After entering the name, the patient's name will be displayed on the form and the progress bar will increase as seen in Figure 5.

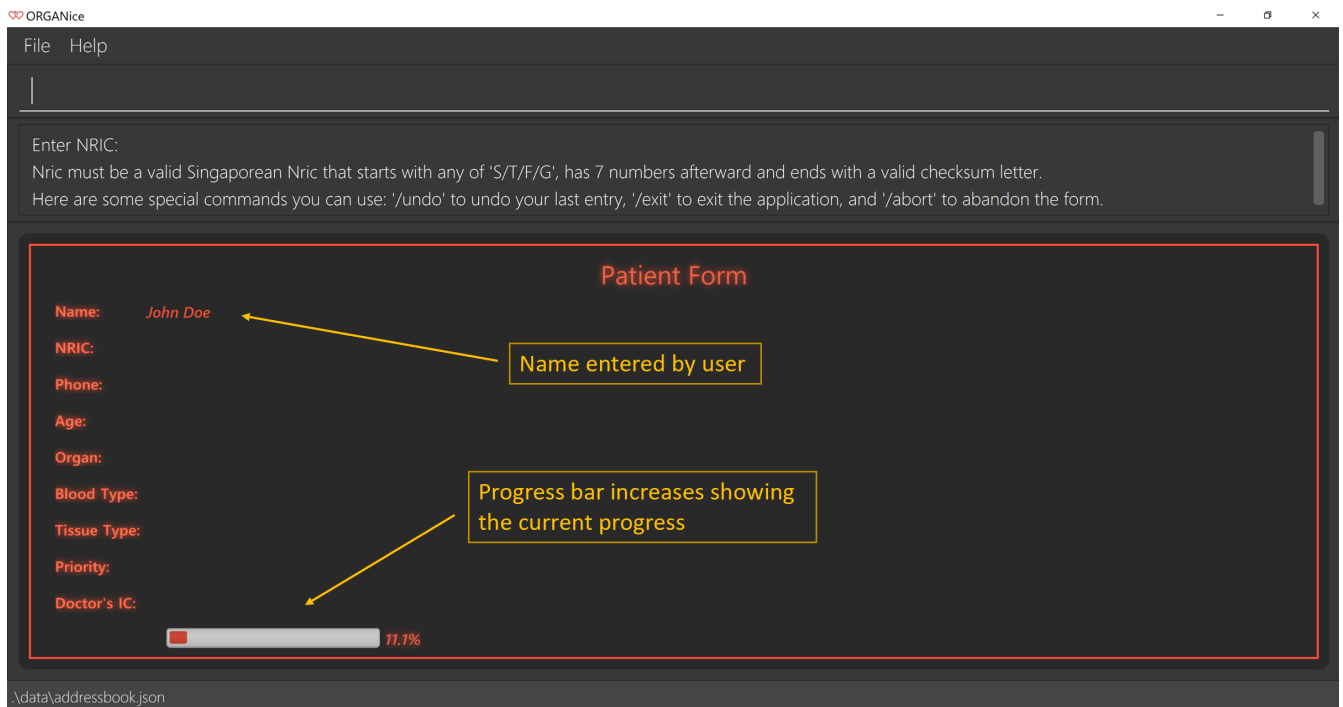


Figure 3. Form layout after you have entered a valid name

Each time you type an input, ORGAnice will check if it is a valid input. If the input is valid, it will be reflected on the form. If not, ORGAnice will display a warning message stating the criteria for a valid input of that attribute.

Say you typed in "G999999999A" and pressed kbd:[Enter] when ORGAnice prompts you to type in the NRIC of the patient. Three changes occur to ORGAnice, which can be seen in the Figure 6:

1. Your input will remain in the Command Box, but the colour of the input text turns to red.
2. A warning message is displayed in the Message Display Box. This warning message details the criteria for a valid NRIC input. This error message is specific to the attribute type. For example if you typed in an invalid NRIC, an error message detailing the criteria for a valid NRIC will be displayed.
3. Your input will not be reflected in the form.

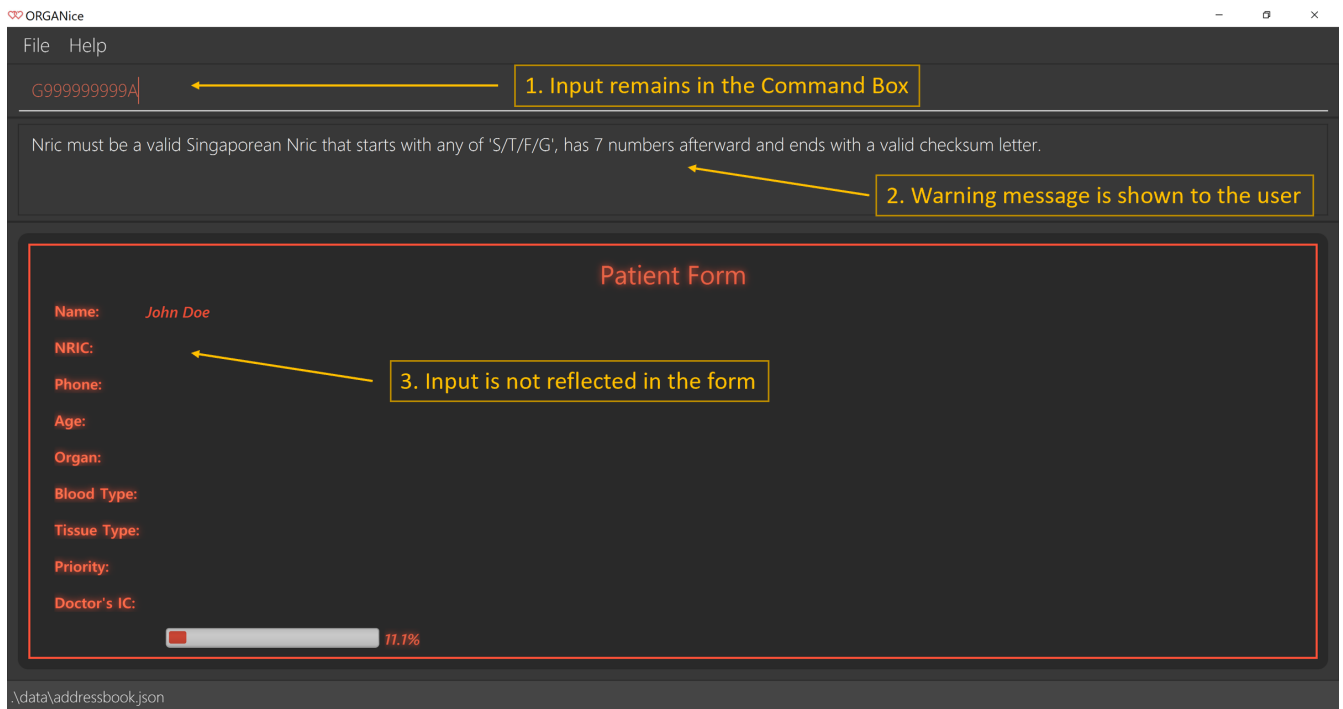


Figure 4. Form layout if you entered an invalid value

After all of the attributes have been specified, you can type in:

- **/done** to add the person to the ORGANice list of persons
- Click the **Find Match** button to directly add the person and find the potential donors at the same time. Note that the **Find Match** button will only appear on the **Patient** form. Note that this action is only applicable if you are adding a patient.

The **Figure 7** will show how the form will look like after you have entered all the required attributes.

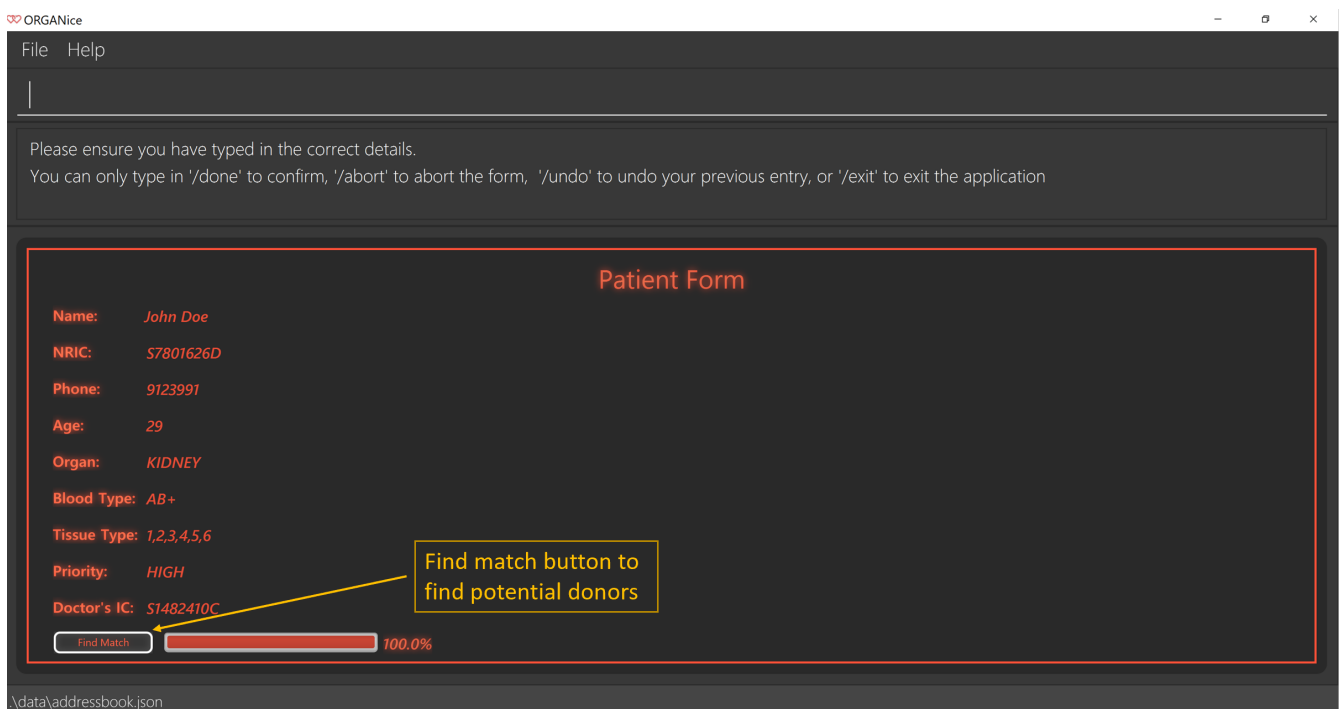


Figure 5. Form layout after all the required attributes have been specified

When you type in **/done**, the **Person List** will return to its original state of displaying people in

ORGANice. The **Message Display Box** will show a success message, indicating that you have successfully added a new person to the Person List as seen in **Figure 8**.

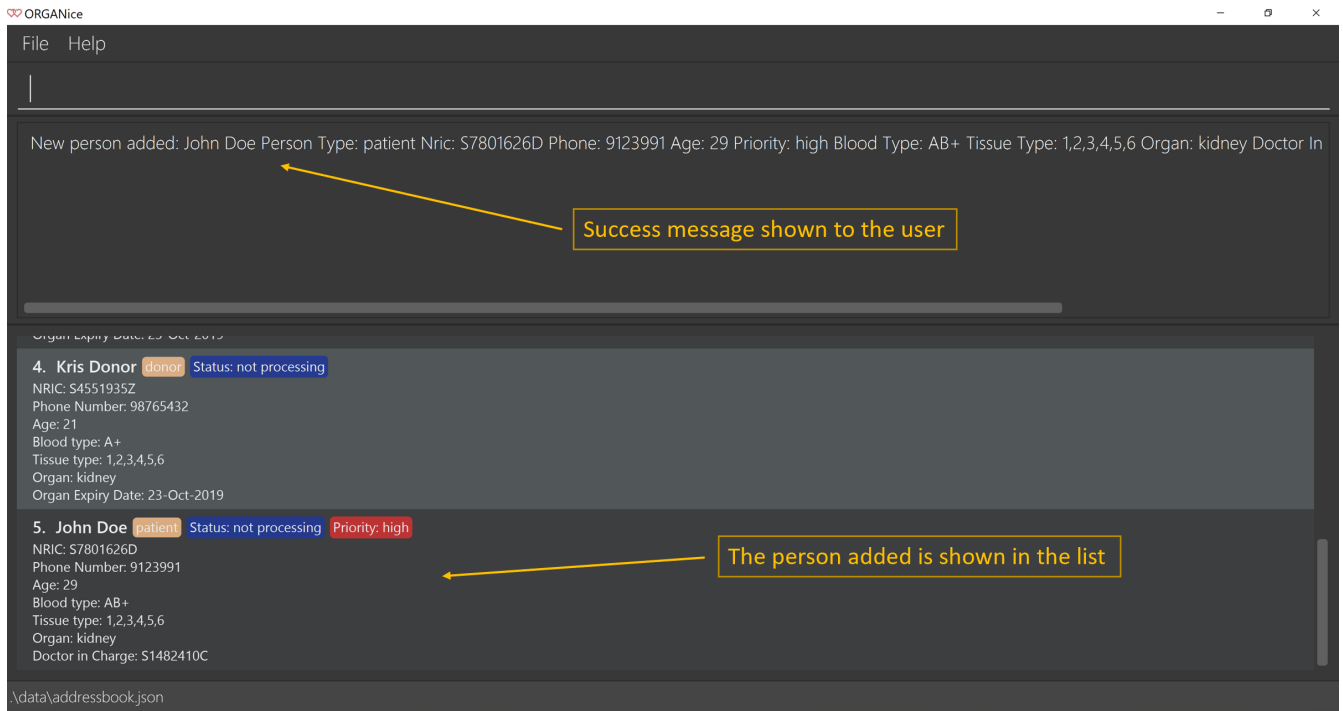


Figure 6. The UI changed back to it's original state and shows a success message

The 'Find Match' button will appear when all attributes are filled. After you clicked this button, **ORGANice** will add the patient to the list and it will execute the 'match' command. ORGANice will then return back to its original state(exits from the form mode) and shows the list of potential donors for the patient you have just added as seen in Figure 10. Note that this button only appeared if you are adding a patient.

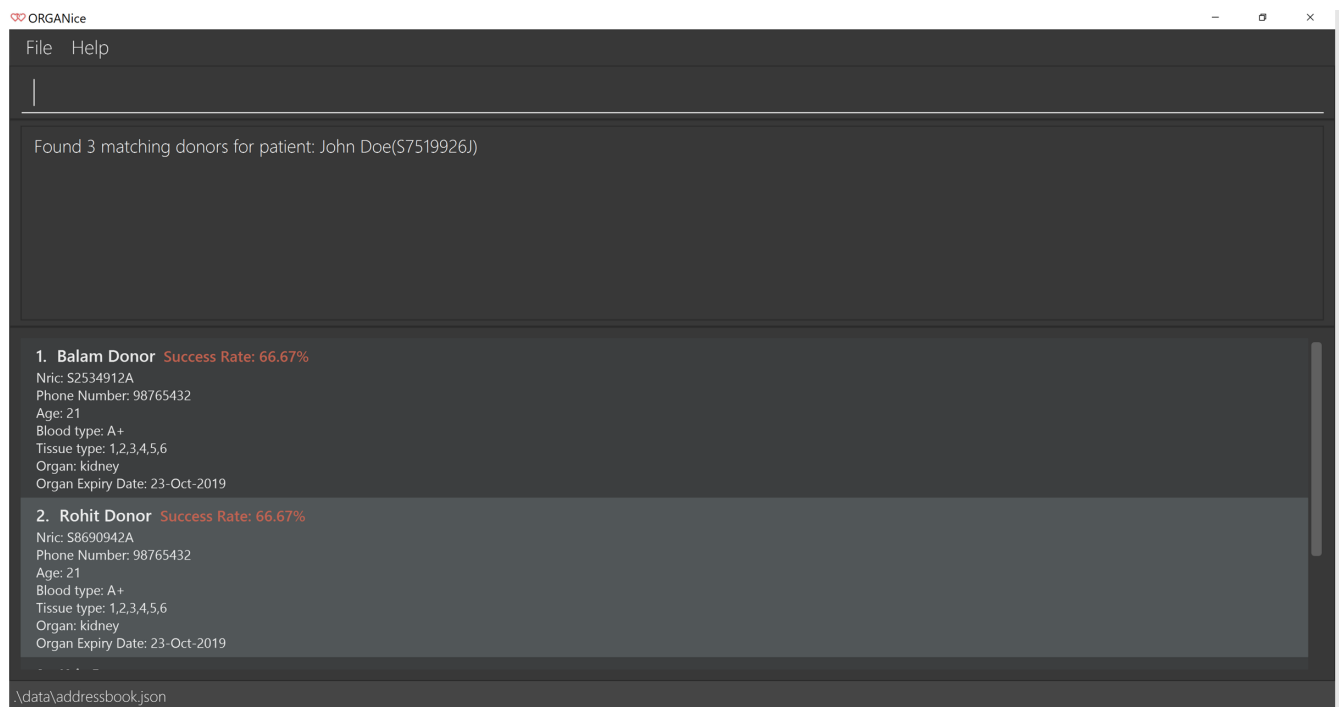


Figure 7. The UI displayed the potential donors for a patient that you have added

At any point in time, if you decided not to proceed with the addition and typed in **/abort**, you will be

directed into the main page and notified that you have abandoned the form as seen in Figure 10.

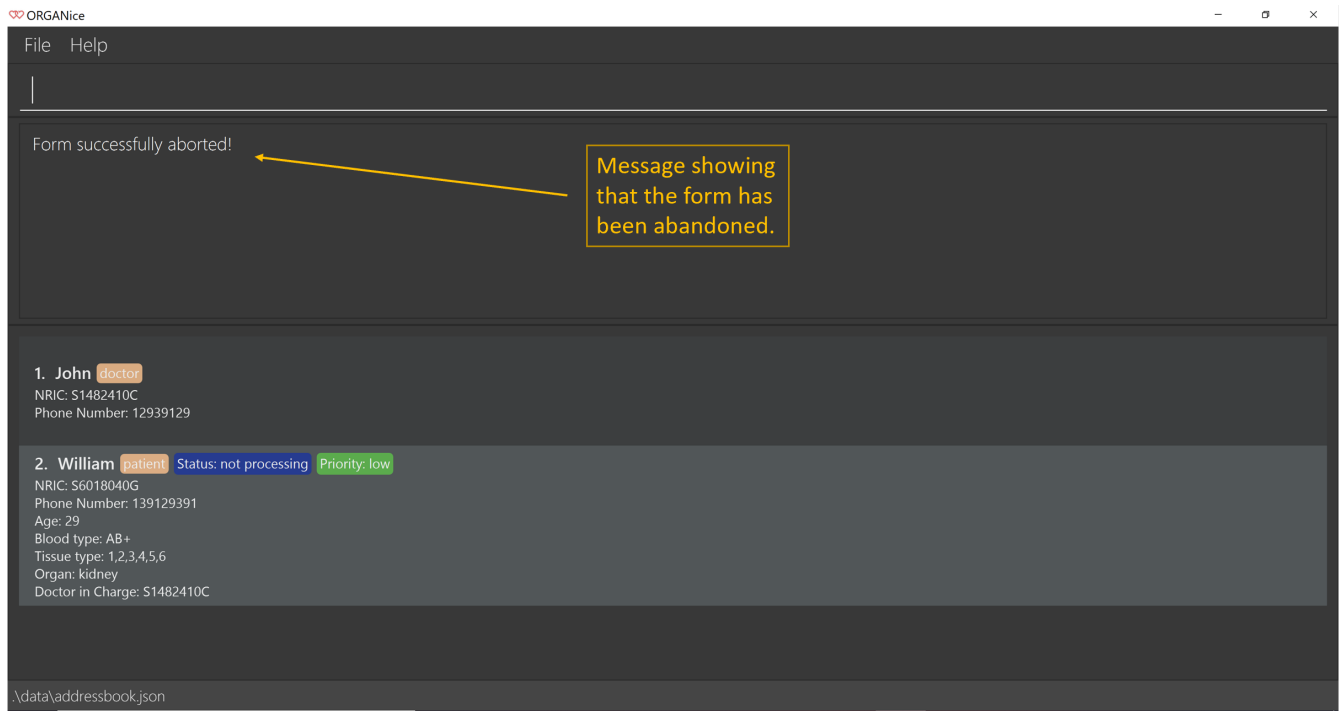


Figure 8. The UI changed back to it's original state and shows a message the form has been abandoned

Furthermore, if you made any mistake while you are filling up the form, you can type in `/undo` to remove the last entry you entered. For example, if you enter the wrong name and want to undo the action, type `/undo` in the Command Box and press `kbd:[Enter]`. Your previous input for the name will be removed from the form as seen in Figure 11

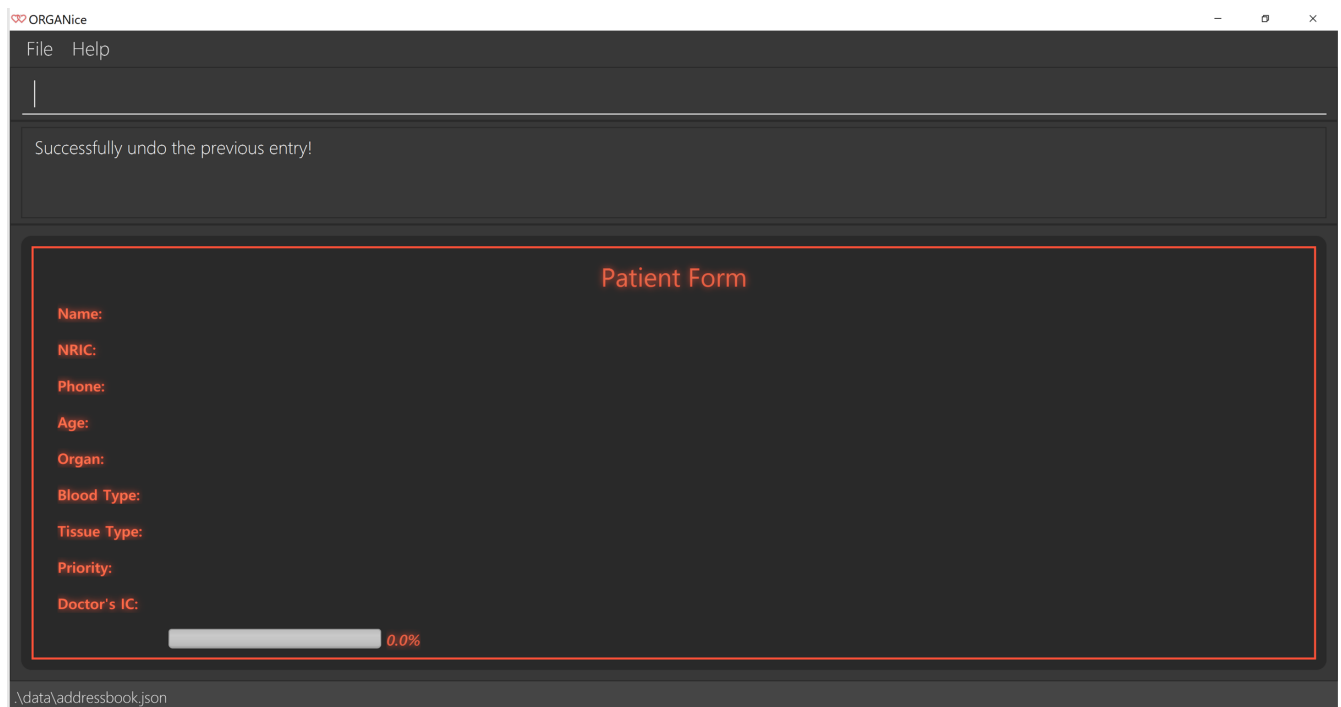


Figure 9. Form layout showing that the last entry is removed after you typed in `/undo`

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Contributions to the Developer Guide

Given below are sections I contributed to the Developer Guide. They showcase my ability to write technical documentation and the technical depth of my contributions to the project.

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