**Furnicor Family System**

**User Manual**

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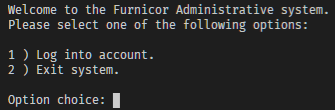
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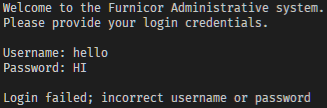
# 1 - General Layout and Menu Traversal

As this is a console-based application, the layout and menu traversal are very basic. The general method of traversal is through text-based inputs:



This is the first menu-option the user gets to see. Simply typing either ‘1’ or ‘2’ and pressing enter will bring the user to a new menu with a selection of different options. As this menu restricts the user’s menu options to just ‘1’ or ‘2’, no other inputs are accepted.

This is not the case for all inputs, as some menus allow users to semi-freely give an input of any kind. These free inputs are however strictly bound to the restrictions given to whatever it is the user is inputting. For example:



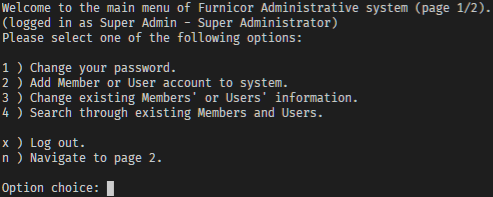
As visible here, the user attempted to log into their account. This failed however, as their inputs did not meet the minimal requirements for usernames or passwords nor did their username or password match any registered users in the database.

For testing purposes, there is 1 static user (super admin) registered into the system by default with the following credentials: Username = **superadmin** & Password = **Admin321!**

# 2 - Main menu

As this application’s userbase are all employees at Furnicor, logging into an account will grant the user access to a diverse set of administrative tools. These range from adding new users and members to the system, to viewing the system’s log file.

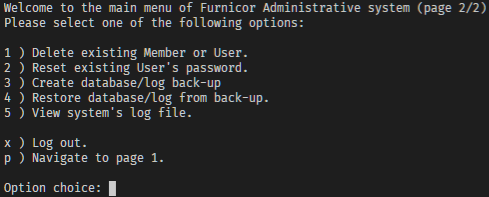
The first screen a freshly logged-in user gets to see is the main menu:



(Note: If the user’s role is Advisor, they will only have access to page 1 of the main menu)

This main menu is divided into 2 pages, with page 1 containing 4 main functionalities, the ability to log out and navigate to page 2. Most functionalities across both pages open into their own sub-menus, in which the user can select more options.

The second page of the main menu is as follows:



This second page is only accessible by System Administrators and Super Admins, and contains 5 main functionalities, the ability to log out and navigate back to page 1.

# 3 - The functionalities of Page 1

## 3.1 - Changing the user’s own password

Each functionality listed on page 1 of the main menu is accessible by each of the 3 distinct roles. The functionalities inside their sub-menus, however, are in some cases locked behind a higher role requirement.

The first functionality is changing the user’s own password. Selecting this functionality on the main page will bring up the following sub-menu:



Here the user will enter their new password, followed by repeating the password they just entered. Their password will only be changed if the password meets certain criteria. The criteria for a valid password are as follows:

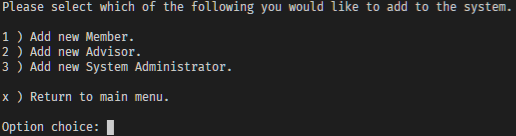
* It must contain at least 1 lowercase, 1 uppercase, 1 number and 1 special character.
* It must be at least 8 and at most 30 characters long.
* The repeated password is identical to the initial new password inputted by the user.
* The new password is not already in use by another user in the system.

If the user’s inputted password meets these requirements, their password will be changed, and they will be logged out of their account.

## 3.2 – Adding a member/user to the system

This functionality is the first example of having certain aspects of it locked behind a role requirement.

The sub-menu itself is as follows:



(Note: If the user is a System Administrator, they cannot see and select option 3. If the user is an Advisor, they cannot see and select option 2 and option 3)

Selecting one of the 3 options will ask the user to input a bunch of information. If they chose to add a member, they would need to enter this new member’s:

* First name
* Last name
* Address:
  + Street name
  + House number
  + Zip code
  + City
* Email Address
* Phone Number

(As seen above, inputting the address is done in 4 parts.)

If the user decided to add either an Advisor or a System Administrator to the system, they would also need to input a valid username and password in addition to the other information.

As with passwords, each of these inputs has their own minimum requirements to be considered valid.

For a first or a last name to be considered valid, they would need to meet the following criteria:

* Have a length of more than 0 (obviously)
* Have all of their characters be either lowercase, uppercase or one of the following: ‘ (single quote) - (dash) or . (dot)

For a username to be considered valid, it would need to:

* Be at least 6 and at most 10 characters long
* Have all of its characters be either lowercase, uppercase, 0-9 or one of the following: \_ (underscore) ‘ (single quote) - (dash) or . (dot)
* Not already be in use by another user in the system

For an address to be considered valid, all 4 of the separate parts used must be valid:

* The street name and house number must:
  + Have a length of more than 0 (obviously)
  + The house number must contain at least 1 number
* The zip code must:
  + Be of the following format: DDDDXX (D are numbers, X are letters)
  + The letter portion of the zip code are forced to be uppercase, regardless of whether the input was all uppercase or not
* The city must:
  + Be one of the following: Amsterdam, Rotterdam, Den Haag, Leiden, Groningen, Utrecht, Middelburg, Dordrecht, Assen or Arnhem (case-insensitive)

For an email address to be considered valid, it would need to:

* Be longer than 1 character (obviously)
* Have exactly 1 ‘@’ character, surrounded by at least 1 letter on either side.
* Have all its non-letter and non-number characters be surrounded with at least 1 letter or number on either side.
* The email prefix (characters before the ‘@’) and email domain (characters after the ‘@’) must start and end with a letter or number
* The email prefix can only contain letters, numbers, and the following special characters: \_ (underscore) - (dash) or . (dot)
* The email domain can only contain letters, numbers, and the following special characters: - (dash) or . (dot)
* The email domain must contain at least one ‘.’ character. After the ‘.’ There must be at least 2 non-special characters.
* Not already be in use by another user in the system

For a phone number to be considered valid, it would need to:

* Be exactly 14 characters long (including the unchangeable “+31-6-” preceding the user’s input)
* Contain only numbers

Continue here with more clarification on input process (loop & cancel of input)