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## Supervised and Experimental Learning

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### CBR System for a Synthetic Task: Cocktail Creator User Manual

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# 1 Prerequisites

In order to be able to run the system without problems, you need to ensure your Python environment has the appropriate dependencies installed, and that the data is located in the correct folders.

To install the dependencies, you have at your disposal a requirements.txt file in the root directory of this project.

Also, you need to make sure that there is a folder named data in the project folder, and that it contains the Case Library file named case\_library.xml.

## 2 Graphical User Interface

This section explains how to run and use the system from the GUI.

To start-up the GUI, you only need to run the app.py file under src/app. Then you will be greeted with a single window GUI.

### 2.1 Introducing your preferences

The use of the GUI is straight forward. You have available several preferences regarding the recipe that you can fill in. The application only allows you to select a single type of drink and glass for the request.

To include multiple types of alcohols and basic tastes to the recipe you have an input text line. Once you start typing the system will prompt you with a list of available options matching your input text. To add the entry just press Enter. In case you want to remove one of the selections, you only need to double click the desired item.

In the same fashion, you can input the ingredients that you want to include or exclude from your cocktail. The procedure to remove elements from the lists is the same as described above. In this case, to add the elements to either of the two lists you must explicitly click on the appropriate button or use the button's shortcut which is Alt+key. Being key the one corresponding to the underlined letter of the button's name.

One thing to keep in mind is that the system will prompt you with an error if you try to add an alcohol, taste or ingredient that does not exist in the system's database.

### 2.2 Sending the request

After you have filled your preferences, you can press the Run button to send your request to the system. If you have not introduced a name for your recipe the system will warn you and ask

you to do so. Otherwise, you will be shown the recipe the system used to build your cocktail and the adapted recipe which should match your preferences. After this, you are expected to evaluate the proposed solution with a score between 0 and 10. Being 0 for very unsatisfactory results and 10 for very satisfactory results. After you send the evaluation, you can introduce new preferences and start again.

The screenshot shows the 'Cocktail Creator' application window. It features a top bar with 'New cocktail name: My recipe name' (labeled 1), a main content area with four preference panels (labeled 2), and a bottom section with 'Retrieved case' and 'Adapted case' displays, a score slider, and an 'Evaluate' button with a 'Run' sub-button (labeled 3).

**Step 1:** New cocktail name: My recipe name

**Step 2:** Preference panels:

- Type of drink:** cocktail
- Type of glass:** cocktail glass
- Has alcohol:** gin, rum
- Has taste:** sweet
- Ingredient:** strawberry liqueur
- Not has:** vodka

**Step 3:** Evaluate (Run)

Figure 1 – Steps to fill in the request preferences.

Cocktail Creator

About

New cocktail name:

Type of drink:  Type of glass:

Has alcohol:

Has taster:

Ingredient:

Has:

Not has:

Retrieved case:

Mary Pickford  
Type of drink: cocktail  
Glass: cocktail glass  
Ingredients:  
1/2 tsp of maraschino liqueur, 1 1/2 oz of light rum, 1 oz of pineapple juice, 1 of maraschino cherry  
1/2 tsp of grenadine  
Preparation:  
0. shake and strain into a chilled large cocktail glass

Adapted case:

My recipe name  
Type of drink: cocktail  
Glass: cocktail glass  
Ingredients:  
1/2 tsp of maraschino liqueur, 1 1/2 oz of light rum, 1 oz of pineapple juice, 1 of maraschino cherry  
1/2 tsp of grenadine, some strawberry liqueur, 1 3/4 shot of gin  
Preparation:  
0. shake and strain into a chilled large cocktail glass  
1. add 1 3/4 shot of gin  
2. add some strawberry liqueur to taste

Score: 8.6

0  10

Figure 2 – Example of a result and how to evaluate it.