Smart Cookbook (Älykäs reseptikirja)

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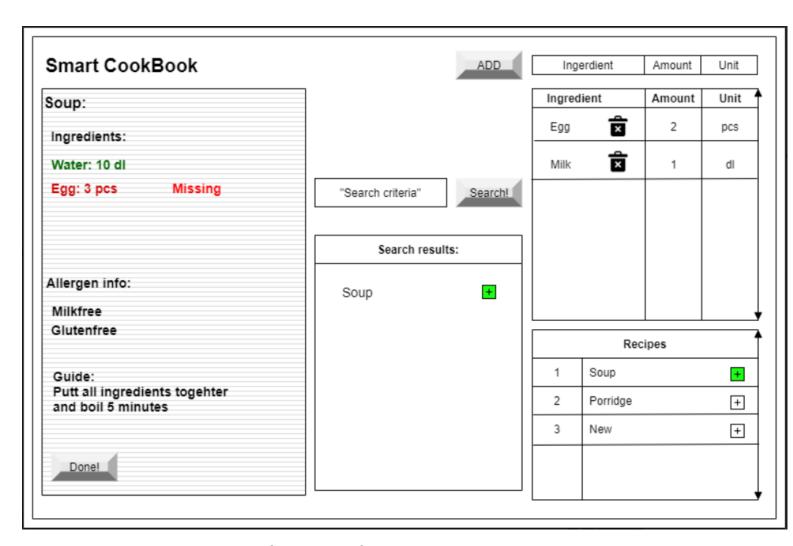**Computer Science 2020**
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General Plan:

The users can easily keep a record of recipes and which ingredients they have available and how much. They can add their own recipes and ingredients and delete them. Users can check recipes which fill all the ingredients criteria to make wanted food. Program will show, if you can make a selected recipe and if you can't, it will show ingredient shortages. The program also shows all the recipes that users can make without needing to go to the store after selecting it. They can select other criterias for recipes they want, like recipes that are vegetarian or food that doesn't include specific allergen or for example contains fish. Some ingredients may have to be constructed with separate recipes. If the user doesn't have a specific ingredient already pre-made, the Smart Cookbook can show the recipe for the ingredient. When the selected recipe contains ingredients which can be made from other ingredients, the program will show first how to do them before doing the "big" recipe. When food is done, the program will delete all the used ingredients from the library. The program will also convert measurements to their correct values. For example flour is stored in kilograms but recipes use it in liters. I'm doing the program on the **Intermediate** level.

Draft user interface:

The program will use graphical UI, which shows the recipe, ingredients in the storage and has inputs for ingredients (and how much you want to add) and recipes (also deleting them). You can search recipes by name, ingredient or specific criteria (e.g

allergen, vegetarian). Output messages are shown in the UI. Simple navigation menu for ingredients and recipes on the right.

					Ingerdient	Amount	Unit

Smart CookBook ADD

Soup:

Ingredients:

Water: 10 dl

Egg: 3 pcs   Missing

Allergen info:

Milkfree
Glutenfree

Guide:
Putt all ingredients togehter
and boil 5 minutes

Done!

"Search criteria"   Search!

Search results:

Soup   [+]

Ingredient		Amount	Unit
Egg	🗑	2	pcs
Milk	🗑	1	dl

	Recipes	
1	Soup	[+]
2	Porridge	[+]
3	New	[+]

There is a simple model for user interface. Users can browse the Recipes and ingredients. Ingredients can be also added and deleted directly through the interface. Selected recipe is shown on the left. Search button and results are in the middle. Recipes can be edited on the left and added on the right on the recipe navigation bar. After clicking "Done!", it deletes automatically used ingredients from the list.

Files and file formats:

Text files for recipes and ingredients. UI does not need any images or files to develop. The ingredients and recipes are stored in text files to allow them to be

retained after the application is closed. The information is formatted on the specific order. Recipes have names, ingredients and guides. Ingredients are in format "Ingredient: amount unit" (e.g Milk: 2 dl) Recipes follow the same format for ingredients than ingredients itself.

Ingredients are formatted on the separated lines on the text file:

Milk: 2 dl

Egg: 1 pcs

Recipes are formatted on separate lines on the text file:

Soup: (recipe name)

Ingredients:

Water: 10 dl

Egg: 3 pcs

Allergen info:

Milk free

Glutenfree

Guide:

Boil 5 min.