Software Requirements and design
For
Group 8

Version 1.0

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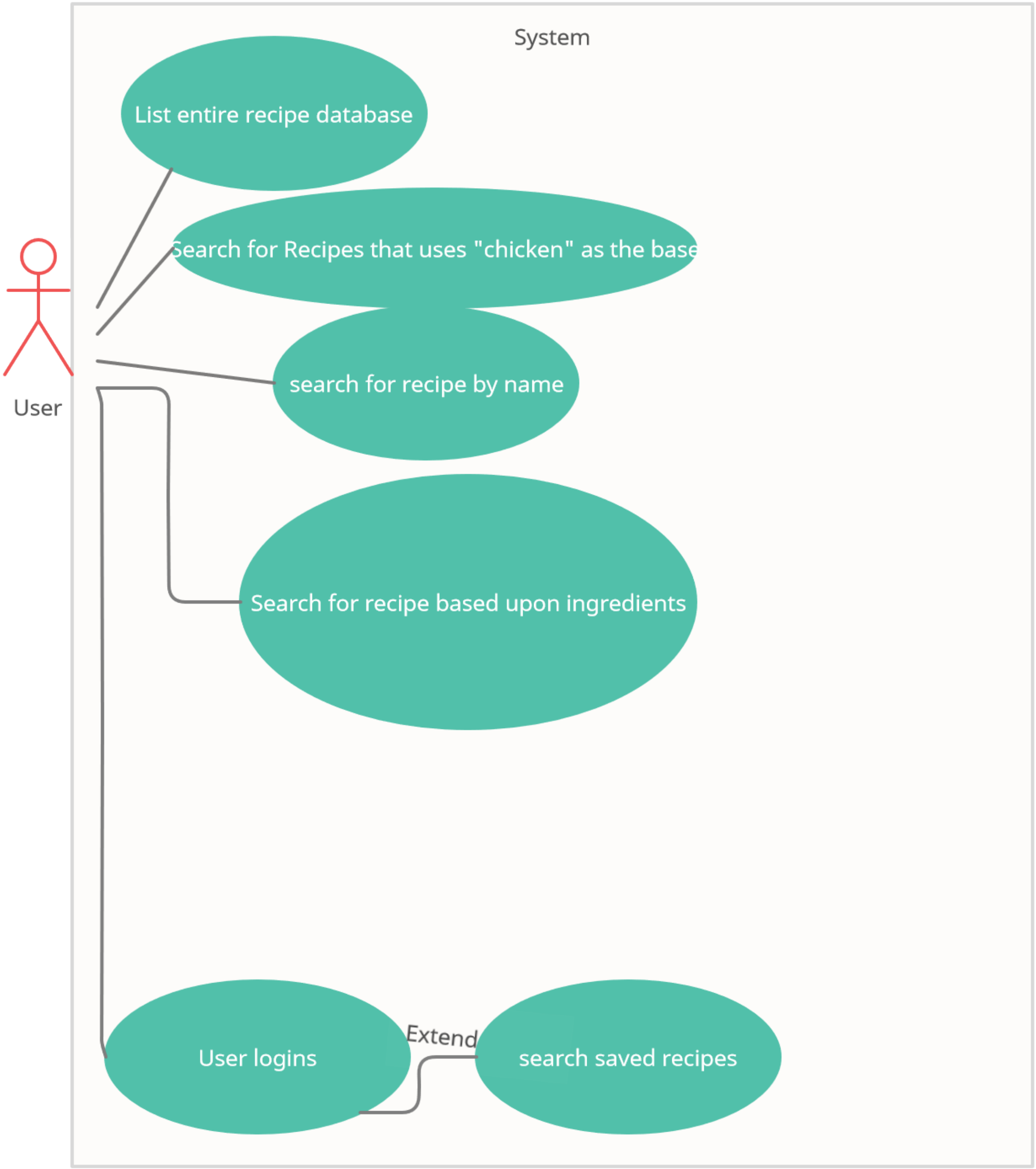
Overview: Our current system primarily runs using HTML on the front end for the user interaction and uses flask on the back end in order to communicate with the databases. There are two main databases, one which keeps track of the recipes and the ingredients associated with said recipes and the other that keeps track of the ingredients that the user has followed by the measurements associated with said ingredient. This database also keeps track of recipes that the user may want to save for later use as well. The system should be quick and easy to use, users can also Sign into their account where they can then access recipes they have saved for later use. HTML5 and potentially React as well, will be used to stylize the website on the users end while Flask will primarily be used to ensure database connectivity and communication.

Functional Requirements:

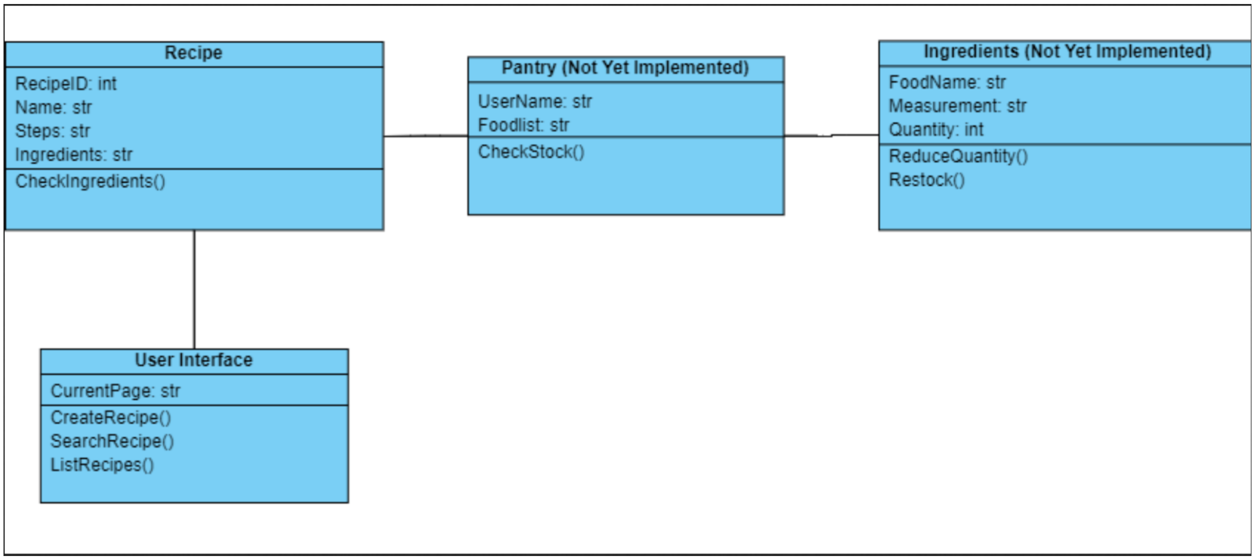
1. System should take in ingredients the user has and return recipes based upon those ingredients (High)
2. System should allow user to submit a recipe to the database (Low)
3. System should allow user to search for recipes by name (high)
4. System should allow user to search for recipes based upon a base meat(for example if the user specifies they would like recipes that use pork chops then only recipes that use pork chops shall be returned) (Medium)
5. System should allow user to list the entire recipe database (High)

Non-Functional Requirements: Performance and versatility. At the current state of development, the system doesn’t have proper implementation of security measures and isn’t on a large enough scale to worry about efficiency. The most important function it fulfills is that it provides an open and modular platform that we can design more advanced functionality on top of. It is a solid basework that should not need modification to fit more advanced modules that will be implemented in increment 2.

Use Case Diagram:


System
List entire recipe database
Search for Recipes that uses "chicken" as the base
search for recipe by name
Search for recipe based upon ingredients
User
User logins
Extend
search saved recipes

Class Diagram:



Operating Environment: As of now the operating system runs on HTML5 for the front end of the website which the user interacts with and Flask ver. **2.0.1** is used on the back end in order to communicate with and between the databases.

Assumptions and Dependencies: A potential dependency of the system revolves around the use of the API MyCookbook.io,which will be used to populate the database with recipes for the user to search through. This dependency comes into play when searching for recipes, so on the off chance that the API is not correctly functioning this could leave our system defective. An Assumed factor taken into consideration is when the user inputs their own recipes there is always the possibility that the user will try to break the system by inputting wrong data. So in order to handle this, fields that require measurements will be restricted to numbers. Users will be restricted to a scroll bar of ingredients to choose from in order to prevent users inputting false input. In regards to instructions, the user will have to input these themselves due to the fact that recipe instructions cannot be so easily limited as ingredients.