



COSC345: Software Engineering Group Project

Group Name: Mythical Cooks

App Name: Realm of Feasts

Meet the Team

The team is heavily inspired by the software engineering book *The Mythical Man-Month*

Natasha Prasetyo: The Surgeon

Our expert Surgeon and the main programmer behind our application. Natasha is the mastermind behind the algorithms that power our app. With exceptional skills in software optimisation and handling various exceptions, she ensures that our app runs smoothly and efficiently. Natasha is also the developer responsible for the innovative features that set our app apart.

Nadia Prasetyo: The Co-pilot

Our invaluable Co-pilot and secondary surgeon. Nadia plays a crucial role in reading and reviewing code, ensuring that every line meets our high standards. As our continuous integration manager, she assists in debugging code and maintains the organisation of our Git repository.

Bernice Ishumi: The Administrator

Our dedicated Administrator and Project Manager. Bernice expertly handles all administrative issues, ensuring the smooth operation of our projects. Her role encompasses writing and documentation, organising tasks, and scheduling project activities. Bernice also oversees research initiatives, manages software testing, communicates with users for testing purposes, and serves as our database administrator.

Our App: Realm of Feasts

Summary of the Software

Realm of Feasts is a fantasy recipe discovery app that helps you find recipes based on the ingredients you already have at home. Realm of Feast searches its database and suggests the recipes you can make. The unique aspect of the app is that all recipes are of foods not from "Earth". The database of the app includes recipes from Harry Potter, The Hobbit, Spirited Away, and many other mythical fictional realms. Thus, the name "Realm of Feasts." We have brought together all the different foods from different realms into one place so that others who enjoy fiction can feast upon it.

Functional Requirements

Name	Requirement	MoSCow Priority
Search Recipe with Ingredients	The user should be able to search for recipes by typing a list of ingredients and see all recipes that contain the specified ingredient(s).	Must Have
Search Recipe with Recipe Name	The user should be able to search for a recipe by recipe name.	Must Have
Search Recipe with Series	The user should be able to search for a recipe by the name of a series(anime, book, or movie) and see all the recipes from that series (if any).	Must Have
Sort Recipes by Difficulty	The user should be able to sort the recipes by ascending difficulty.	Must Have
Sort Recipes by Time	The user should be able to sort the recipes by ascending time.	Must Have

Display Menu	The user should be able to interact with the application using the provided options menu.	Must Have
User Recipe Management	The system should be able to store recipes provided by the user.	Should Have
Database Recipe System	The system must have at least 200 recipes available for the user.	Must Have
Filter Recipes by Difficulty	The user should be able to filter recipes by specific difficulty ranges.	Must Have
Filter Recipes by Time	The user should be able to filter recipes by specific time ranges.	Must Have
Generate Random Recipe	The user should be able to generate a random recipe	Must Have
Quit Feature	The user should be able to quit the application at any point.	Must have
Metric Converter	The user should be able to convert units to desired units for any quantity to be measured.	May have
No Curse Words Allowed	The system should deny any input from the user that contains inappropriate words.	May have
Best Recipe Choice	The system should be able to provide the “best” recipe choice for the user based on their ingredients	May have
Display All Recipes	The system should be able to display all recipes to the user.	Must have

Limit Display	The user should be able to limit the amount of recipes displayed	May have
Filter Recipes by Dietary Requirements	The user should be able to filter the recipes based on specific dietary requirements(eg., vegan, gluten-free, etc)	May Have
Search Recipes Excluding Ingredients	The user should be able to search for recipes by typing a list of ingredients and see all recipes that do not contain the specified ingredient(s).	May Have
Filter Recipes by Maximum Number of Ingredients	The user should be able to filter recipes based on the maximum amount of ingredients they want in a recipe.	May Have
Filter by Recipes by Meal Type	The user should be able to filter recipes by meal type (e.g., breakfast, lunch, dinner, dessert).	May Have

Non-Functional Requirements

Name	Requirement(s)
System's Usability	The user interface should be intuitive and easy to navigate
System Reliability	The system should ensure data integrity and prevent data loss in case of system failures.
System Security	The system should be regularly tested for vulnerabilities and comply with relevant data protection regulations
System Performance	The system should return results within 5 seconds for 95% of queries

System Scalability	The system should allow easy addition of new features without a major rebuild.
System Maintainability	The system should support automated testing to ensure that new changes do not introduce bugs.

The Building Process

Realm of Feasts is going to be built using the agile methodology. Thus the development of the software will have 5 phases.

Step 1: Plan

The first phase is to plan the software out. Define our goals, requirements and objectives for Realm of Feasts. The function and features we want it to have. As well as the order in which the features are implemented. Assign roles. Identify the pace we should develop the app.

Step 2: Design

Decide on the programming language to build the app. Identify the target audience of the app. How will the user interact with the App? Lastly, the results we want the app to produce.

Step 3: Develop

Our team will be using C++ to develop the application. This is where the coding implementation of the app will begin.

Step 4: Test and Deploy

Test the different components coded so far. Test how the system works as a whole. Make sure to test for special cases from user input and interactions. Testing Realm of Feasts in a user environment.

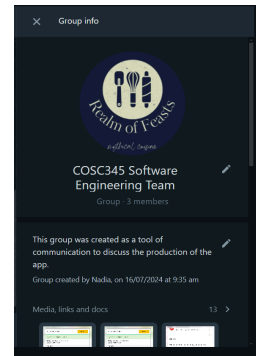
Step 5: Review

Review the feedback gained from deployment and testing. What needs to be fixed? What needs to be improved?

Repeat the phases till the software is completed and ready to use.

The Schedule

Our team utilised multiple communication apps to plan and execute our schedule. We used Monday to plan the tasks that we needed to do and to determine who was in charge of them. Additionally, we monitored the status of the tasks in each phase. We utilised a WhatsApp group chat for quick communication and to plan team meetings, making it easier to manage and execute the plans made.



Here is a link to the **Gantt Chart** representing our schedule:

https://github.com/Caca-XP/Realm-of-Feasts/blob/main/Gantt_Chart.pdf

Unfortunately, we weren't able to fit it to the page.

For a better look at our Gantt Chart and project manager:

<https://bkishumis-team.monday.com/boards/1897894790/views/40890922>

Similar Apps

The apps similar to Realms of Feasts are :

MyFridgeFood:

This is a recipe app designed to help users find recipes based on the ingredients they have available in their fridge and pantry.

SuperCook:

This is a recipe discovery app that helps you find recipes based on the ingredients you already have at home. By entering the ingredients you have into the app, SuperCook searches its database and suggests recipes you can make.

RecipeMate:

This is another app designed to assist users in discovering recipes based on the ingredients they have available.

However, our app is unique as it is based on fictional food rather than day-to-day meals. Additionally, we have extra features such as the metric converter that these other apps do not have. Thus distinguishing ourselves from the pack.

Back to the Basics

Realm of Feasts follows the theme “Back to Basics” as it is a monolithic application whose sole purpose is to aid the user in finding a recipe. The app avoids unnecessary complexity by having one sole purpose, keeping its core functionality simple. The backend of the software has no dependencies with external libraries and no communication with external services such as The Internet. Thus Realm of Feasts is a Back to Basics software application.

Customer Interest

Our main customer base will be fans of fictional universes. People who enjoy fantasy and science fiction genres find the idea of cooking and eating dishes from their favourite stories exciting. The concept of cooking dishes from fictional realms is unique and likely to generate significant interest. People love seeing the foods from their favourite shows and movies brought to life, making our recipe book app a potential hit.

Consumer demand for fantasy food cookbooks has notably increased in recent years. According to Forbes, this trend highlights the popularity of bringing fantasy foods to reality.

Additionally, the rise in pop-up restaurants offering themed experiences designed to transport fans into the worlds of their favourite shows demonstrates a growing interest in immersive culinary adventures (Cato, 2018).

The app's interactive features, such as allowing users to add their own recipes, further enhance its appeal. This enables users to be highly engaged and creative, crafting their own culinary adventures based on their favourite fictional worlds. Making our app a guaranteed success.

Glossary

Series(n.): a sequence of related anime episodes or books or a collection of related films that are part of a larger franchise.

References

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Trotino, C.(2016, October 5). The Real Business Behind Fantasy Food.

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<https://www.forbes.com/sites/christinatroitino/2016/10/05/the-real-business-behind-fantasy-food/>

Cato, B. (2018, October 25). *The Fantastical Food of Fantasy: Magic Made Real*.

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