
Computer consulting company

ChefGPT
Vision

Version <1.0>

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Vision

1.1 Purpose and scope

This Vision document's purpose is to specify the project's main goal. This document works as a guideline to how the team should proceed with development and makes sure the main goal is reached within the given timeframe. This document applies to the java desktop application ChefGPT. Developed by ChatGPT og Co., first year computer engineer students at NTNU Aalesund employed by a computer consulting company. The ChefGPT will provide a new way of dealing with groceries, minimizing food waste and making the overall experience of making food better for both students and family homes.

1.2 Definitions, Acronyms, and Abbreviations

UML – Unified Modeling Language

JVM – Java Virtual Machine

NTNU - Norwegian university of science and technology

MVP – Minimum Viable Product

SSB – Statistical Sentral Agency

1.3 References

Linode. (2024, January 29). *Pricing*. Retrieved from Linode: <https://www.linode.com/pricing/#compute-shared>

Statistisk sentralbyrå. (2023, April 12). *Dwellings*. Retrieved from Statistisk sentralbyrå:

<https://www.ssb.no/en/bygg-bolig-og-eiendom/bolig-og-boforhold/statistikk/boliger>

1.4 Overview

This document will show the vision of the product, meaning everything from estimates of costs to functionality and requirements for the application to be completed. It will also cover definitions of the stakeholders in the project and who the end-user is.

2. Positioning

2.1 Business Opportunity

The business opportunity of this project stems from the uniqueness compared to similar products on the market. It's also possible to make the software into a subscription-based application, where the households pay yearly or monthly for the services.

2.2 Problem Statement

The problem of	managing groceries
affects	private homes and student collectives.
the impact of which is	Waste of time and energy
a successful solution would be	No energy wasted on grocery management

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2.3 Product Position Statement

For	Student collectives and private homes
Who	Wish to have an organized inventory of food and have an easy way to fill up inventory based on eaten food.
The (product name)	ChefGPT is used to keep an overview of food in an inventory and easily generate shopping-lists based on current inventory and selected recipes.
That	Helps prevent food waste and streamlines the process of buying groceries.
Unlike	The conventional method of keeping a mental track of inventory and creating shopping lists manually.
Our product	Automatically creates a shopping list based on inventory and selected recipes. Additionally, it keeps digitally track of the food in the inventory and recipes.

3. Project goals

3.1 Impact goals

- Reduce time spent on grocery management
- Streamline shopping planning
- Reduce difficulty with choosing meals

3.2 Result goals

- Create a desktop application in java based on the given requirements.
- Develop an MVP. Date: 20.3.2024
- Develop a ready to release product. Date: 26.04.2024
- Meet the end-user's requirements.

3.3 Process goals

- Learning how to create a system from scratch
- Learn data-management
- Learn desktop application development in java
- Learn to adjust to a third-party input (end-user)
- Develop the skills and knowledge of the team.

4. Stakeholder and User Descriptions

4.1 Market Demographics

The main market for this application is private households. This is currently a large market that has great potential to grow over the coming years. At the current moment there are, according to SSB around 2.7 million households in Norway.

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4.2 Stakeholder Summary

Name	Description	Responsibilities
Sebastian's brother	Sebastians brother takes role of product owner and end user.	His responsibility is to ensure that the final product works the way he wants it to, and that it is usable for the target demographic.
Computer consulting company	The company commissioned to develop the application	Make sure that the application gets completed, and that the main functionality goals get met.

4.3 User Summary

Name	Description	Responsibilities	Stakeholder
Private Households	Contains a range of different users. Everyone from young kids to elderly.	Using the application and giving feedback on the experience.	Sebastians brother represents private households.

4.4 User Environment

The target environment that this application aims to be implemented in is while planning/making food.

The number of people involved in this task can range between one person to an entire family.

We aim to shorten the general task cycle, as the application will remove the need to check current inventory. It will also reduce the time to decide on meals as the application has a built-in cookbook.

A unique environmental constraint with this application is that it will be created as a desktop application. This limits some usability as one will need a computer to take advantage of the application.

The application will also be a standalone application, so there is no need for integration with other applications.

4.5 Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Inventory overview	High		Manually checking for ingredients in house	Digital list with all food currently in inventory
Cookbook	Medium		Either searching up recipes on other applications or remembering meals	A digital cookbook that holds a lot of recipes that can easily be chosen between

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Shopping-list	Medium		Coming up with everything needed for a recipe and crosschecking that with the current inventory	Automatic generation of shopping-lists based on current digital inventory and wanted recipes.
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4.6 Alternatives and Competition

Foodora. This is a food delivery service which lets you select recipes and get the food delivered home. This can be a threat because it fills the same uses case as ChefGPT. The strength of this service is that the user does not need to physically go grocery shopping. Their weakness is their price.

FoodManager. This is an application that tracks food items in your home. This can be a threat because it does part of the same as ChefGPT. ChefGPT allows you to handle recipes and make shopping lists. If a user only uses the organization tool of ChefGPT, FoodManager may be their first choice. This competitor's strength is that it only focuses on managing inventory and may have a better organizing system. This is also their weakness as ChefGPT has more use cases.

5. Product Overview

5.1 Product Perspective

This product slots right into the management of household. It will remove the stress of continuously estimating current holding and streamlines the planning of shopping lists. It also helps digitalize the kitchen to create an ease when browsing and finding dinners.

The product is an independent, self-contained system. The product will utilize local file storage to store information and java to access and display this information.

5.2 Assumptions and Dependencies

This product depends on the end user having a digital device. In this case a computer with the capability to run JVM.

There is also an assumption that the end user wants to implement and streamline grocery management. In the case where an end user doesn't want to learn the product, the process of adoption can be nearly impossible.

We assume locally storing information on the users computer is a good solution. If this turns out to be a bad solution, we would have to spend time

An assumption/dependency is that the user uses the product actively to manage their groceries. For the product to be helpful, it must be constantly updated based on the user's food situation.

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5.3 Risk analysis

Very Likely					
Likely					
Moderate				3	
Unlikely			1 2		
Rare		4			
	Insignificant	Minor	Significant	Major	Severe

(i)	Risk	Probability/ Consequence/ Risk factor	Description	Consequence, consequence index	How to handle
1	Illness	2/3/6	A member falls ill.	Less work can be completed. Plans could need changing.	The ill member notifies the other members. The notified members will handle this by changing how work is completed for the timeframe the member is ill.
2	Absence	2/3/6	A member is absent when they should not be.	Less work can be completed. Plans could need changing.	The absent member notifies the other members, if possible, which leads to a change in workflow.
3	Bad planning	3/4/12	The plan created for the project leads to development straying from our vision.	Workflow harmed, downtime, the finished product is not what we envisioned.	The original plan should be changed to better fit the needs of the members.
4	Lack of participation	1/2/2	A member participates poorly.	Less work can be completed. Plans could need changing.	The underperforming members should be communicated with them to figure out how to improve participation.

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5.4 Cost, Pricing and benefits

To preference, we are not economics professionals. This indicates that the following information has a loose base and should be taken with a grain of salt.

The cost of this application for the user would be a monthly or yearly license. The benefit the users get from using our product is to streamline their grocery management and shopping. If we compare this to the 0 – alternative it will greatly benefit the users in their daily life if they use them.

5.5 Quantifiable and non-quantifiable benefits

Impact goals:

- Reduce food waste
- Increase efficiency in food management
- Ease access to recipes

Quantifiable benefits:

- Money saved on food as less food goes to waste.
- Amount of food consumed by households
- Reduced trash generated by food containers

Non-quantifiable benefits:

- Relief of mental strain
- Energy saved from not having fridge door open when checking for groceries

5.6 Estimated costs

- A member working for 1 hour costs the company 1300NOK. The development team consists of five members which are each estimated to work 72-88 hours each. The result of this is an estimated 468 000-572 000NOK price of development.
- To maintain our product we estimate that we need 80 hours of maintenance a year, at 1300NOK/hour. Which means a yearly maintenance cost of 104 000NOK.
- Operating costs, meaning server rent is around 130NOK/month, which means 1560NOK in operation costs.

6. Product Features

6.1 Keep track of an inventory of groceries.

The system should be able to keep track of an inventory of groceries.

6.2 View inventory

Allows the user to see items in current inventory

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6.3 Manipulate inventory

The user should be able to add and remove groceries from the inventory at will.

6.4 Register new types of groceries

Register a new type of grocery to the system.

6.5 Keep track of recipes

The system should be able to keep track of recipes in a cookbook.

6.6 Register new types of recipes

Register a new type of recipe to the cookbook

6.7 View recipes.

The user should be able to view the available recipes in their cookbook

6.8 Generate shopping list

Feature for generating a shopping list based on planned meals and current items in the inventory. Gives overview of the products.

7. Constraints

This project is limited by multiple factors.

- Storing the amount of an item in the form of grams or liters might prove difficult.
- The system relies on the user to register ingredients and recipes if they do not already exist in the database. This might lead to invalid or non-existent recipes or ingredients being added to the user-database.

8. Precedence and Priority

The most key features of the system, sorted highest to lowest priority, are:

- View inventory.
- Keep track of an inventory containing all groceries.
- Add and remove items from the inventory.
- Register new foods.
- Keep track of recipes.
- Create a shopping list based on food in inventory and selected recipes.
- Register new recipes.
- View recipes.

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9. Other Product Requirements

The project is designed to be a desktop application, which requires a computer to run. Since we are developing a java application the operating system used, such as Windows, Mac or Linux is irrelevant for the program to function.

9.1 System Requirements

A computer able to run the Java virtual machine.

9.2 Performance Requirements

At least 2 GB of memory and 10 GB of storage

9.3 Environmental Requirements

Application required an environment where a computer can run. This also indicates that computers cannot be damaged by water or flour damage.

10. Documentation Requirements

- JavaDoc
- Vision document
- Project plan
- User manual
- Presentation
- Work agreement contract
- Wireframes
- Use-case diagrams
- Git version control
- Main report containing the whole project

10.1 User Manual

The user manual will keep information about all the features and how to use these features in an efficient manner.

10.2 Installation Guides, Configuration, and Read Me File

The installation guides will be included in the user manual. There will also be a log within the application that indicates “What’s new” after each update.

10.3 Labeling and Packaging

The application will be copyrighted by ChatGPT and Co.