Chef’s Adventure

System Proposal Part 2

CSC 3150

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05/21/2024

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A screenshot of a phone

Description automatically generated

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Executive Summary

This document is the system proposal for the app called Chef’s Adventure. It is to be developed by me, Tsion Ballo, an Information Systems student at Seattle Pacific University. My client is someone who enjoys cooking and trying out new recipes. This project aims to make trying new recipes easier. Having a way to save recipes they want to try and ingredients that go with them as well as the steps on how to make the meal, makes it easier to try cooking new meals.

1.0 Introduction and Overview

## Problem Statement

The customers are people who like to try new foods and recipes, as well as people who enjoy creativity. This app stems from the need to make cooking fun by encouraging people to try new recipes and food.

## Project Vision and Scope

My idea is to make a recipe app that can help users organize the dishes they want to make. My app serves as a list for users to input recipes they want to try as well as the ingredients needed for the recipes. It will also serve as a checklist, thus maintaining data for steps and ingredients. I also want the ability for users to categorize new recipes as either: ‘Breakfast’, ‘Lunch’, ‘Dinner’, ‘Desserts’, and ‘Snacks’. Because this is a personalized, single-user app, I would like to include the ability to edit current entries, and those make recipes more specific based on experiences from actually trying them out (so the user can edit the description, ingredient list, instruction steps, category tags, etc). I would like to make this app on a phone.

## Requirements Summary

* Users will be able to add, delete, and edit recipes.
* Users will be able to search for recipes or ingredients they need.
* They will be able to tag each recipe in a folder for ‘Breakfast’, ‘Lunch’, ‘Dinner’, ‘Dessert’, and ‘Snacks’.
* Users will be able to input serving size, steps of the process, and a list of ingredients.

## Stakeholders and Their Interests

* The project team
* Users

## Expected Costs and Benefits

Some benefits would be an improved cooking experience and increased user engagement. Some costs would be Development costs and marketing costs.

## Constraints

Time constraints may affect the deadline. We also don’t have a big budget, so it will be difficult to include advanced features. So, we need to plan carefully to make sure we stay within our capabilities.

## Recommendation

After reading this proposal, the reader should first see if they approve this proposal and if there is anything that needs to be changed, added, or removed. Then, the next step should be starting the project, seeing what resources are needed, and implementing them.

Document Overview

The rest of the System Proposal will include an analysis of the app’s feasibility assessment, requirements definition, and system evolution plans.

2.0 System Initiation

Project Initiation Request (PIR)

PIR-00000 *[PIR Number to be assigned by the Project Office]* Project Initiation Request (PIR) – Level1 v6.0

Project Name: \_\_\_*Chef’s Adventure* \_\_\_\_\_\_ Student Name: \_\_\_ *Tsion Ballo* \_\_\_

**0. General Project Information**

|  |  |
| --- | --- |
| **Project Name:** | *Chef’s Adventure* |
| **Two Sentence Request Description:** | *To make cooking fun by encouraging people to try new recipes and food. They can add a recipe they would like to try as well as the ingredients needed for that dish onto a list.* |
| **Requested Launch Date(s):** | *I would like this project to be launched in the summer, around June.* |
| **Department(s) Affected By Project:** | *Computer Science and Business department.* |
| **Project's Customers:** | *People who like to try new foods and recipes, as well as people who enjoy creativity.* |
| **Date Request Submitted:** | *April 26, 2024* |

1. **Project Sponsor and Manager**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Sponsor** | |  | **Business Project Manager & Requestor** | |
| **Name:** | Andy Cameron |  | **Name:** | *Tsion Ballo* |
| **Title:** | Professor |  | **Title:** | *Student* |
| **Department:** | Computer Science - SPU |  | **Department:** | *Informations System - SPU* |
| **eMail:** | acameron@spu.edu |  | **eMail:** | *ballot@spu.edu* |

1. **Business Problem or Opportunity: The motivation for this request**

*Describe the problem or opportunity that you would like to solve. Include a simple, high-level description of this request's business problems or opportunities. Focus on the problem or opportunity, not the solution. Be sure to include any date or deadline-related dependencies or needs related to the project.*

| My idea is to make a recipe app that can help users organize the dishes they want to make. My app serves as a list for users to input recipes they want to try as well as the ingredients needed for the recipes. It will also serve as a checklist, thus maintaining data for steps and ingredients. I also want the ability for users to categorize new recipes as either: ‘Breakfast’, ‘Lunch’, ‘Dinner’, ‘Desserts’, and ‘Snacks’. Because this is a personalized, single-user app, I would like to include the ability to edit current entries, and those make recipes more specific based on experiences from actually trying them out (so the user can edit the description, ingredient list, instruction steps, category tags, etc). |
| --- |

1. **Justification, Impact, and Importance**

*What is the financial impact and justification for this request? How will the investment of time, resources, and capital be returned to our company? (Please note any contractual or regulatory requirements associated with the request. If you have an NPV, IRR, or ROI calculation, please provide the link(s) in this section.)*

**Assumptions**

|  |
| --- |
| * *Include at least two. Add more rows to each table as needed.* |
| * People are always looking for convenience and that includes cooking as well. |
| * By making an app that makes it convenient for people to find a meal they have been wanting to try, I expect it to have good user engagement. |

**Competitive Landscape / Context**

|  |
| --- |
| * *Include at least two.* |
| * Many apps like this one already show its popularity and demand. |
| * People are likely to use things that are personalized for them, and this app lets them do just that. |

**Tangible Return, Opportunity, or Value One Time On-Going**

|  |  |  |
| --- | --- | --- |
| * *Include at least two. Estimate the best you can.* | $ 0 | $ 0 |
| * Added Users | $1000 | $50 |
| * Added Features | $100 | $50 |

**Intangible Benefits Impact or Value**

|  |  |
| --- | --- |
| * *Include at least two.* | $ 0 |
| * Users Engagement | $0 |
| * Influence for healthier eating habits. | $0 |

1. **Product Requirements**

*The Project team will gather detailed requirements once the project is approved. Use this section to articulate the critical solution components to help scope the project's size and complexity. Do not describe how the solution will be implemented; instead, only list the functionality or results you expect to receive when the product is complete/delivered.*

* 1. **Must Haves**

|  |
| --- |
| * + 1. *Include at least two. Add more rows to each table as needed.* |
| * + 1. “Add” new recipes |
| * + 1. “Delete” current recipes |
| * + 1. “Edit” recipes (allows the users to add any updates to the dish description, to the steps, or modifications to the ingredients.) |
| * + 1. Search function (This makes it easier for users to search for recipes or ingredients they need.) |
| * + 1. Sub-Categories (Essentially contain each recipe in a folder for ‘Breakfast’, ‘Lunch’, ‘Dinner’, ‘Dessert’, and ‘Snacks’.) |
| * + 1. List of ingredients (with ability to check off.) |
| * + 1. Steps of the process (with ability to check off.) |

* 1. **Could Haves** (Nice to Haves)

|  |
| --- |
| * + 1. *Include at least two.* |
| * + 1. A data set documenting how much of that ingredient we have before and after each use of the recipe will then be updated after marking off each ingredient. |
| * + 1. Ability to enter how many people the user plans to serve. |
| * + 1. Import photo for visual representation. |

* 1. **Won't Haves** (Don't Do's, aka Out of Scope)

|  |
| --- |
| * + 1. *Include at least two.* |
| * + 1. It will not have reviews. |
| * + 1. It will not have a way for users to buy ingredients directly from the app. |

1. **Project Costs (Operating and Capital: Onetime and Recurring) [Optional]**

*This section is typically fleshed out after the requestor has submitted a PIR and received approval for the initial scoping effort. It captures the effort estimates, capital expenditures, and other costs associated with performing this work and creating the product/solution. If the submitter has thoughts or estimates on what these costs are or suggestions on how they might be estimated, please include those here. Add brief descriptions as needed.* ***Include at least 2 comments on your thinking around these items, even if you don't have specifics yet.***

**Labor Costs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type** | **Team(s) Affected** | **Low (hrs)** | **High (hrs)** |
| Analysis & Design |  | 0 | 0 |
| Development |  | 0 | 0 |
| Testing and Quality Assurance |  | 0 | 0 |
| Systems Integration |  | 0 | 0 |
| Deployment |  | 0 | 0 |
| Support and Maintenance |  | 0 | 0 |
| Sales and Marketing |  | 0 | 0 |
| **Total** |  | **0** | **0** |

| Comments:*Include notes here on what the costs are or how they can be estimated. (optional)* |
| --- |

**Capital Costs** (Equipment, Software, Licenses, …)

|  |  |  |
| --- | --- | --- |
| **Description** | **Quantity** | **Cost ($)** |
| *Item 1* |  | $ 0 |
| *Item 2* |  | $ 0 |
| **Total** |  | $ 0 |

| Comments: *Include notes here on what these are or how they can be estimated. (optional)* |
| --- |

**Maintenance Costs** (Costs after the product is live)

|  |  |  |
| --- | --- | --- |
| **Type** | **Hours / Month Low** | **Hours / Month High** |
| System / User Support | 0 | 0 |
| Business / Process Support | 0 | 0 |
| **Total Support & Maintenance** | **0** | **0** |

3.0 Feasibility Assessment

Introduction

This section is going to assess the feasibility of the Chef’s Adventure application. I will be using a high, medium, and low rating scale.

Feasibility Analysis

Technical Feasibility: Medium- The features I want to include are able to accommodate the current technology standards, but complex features will be hard to include.

Resource Feasibility: Low- The project might need additional resources than the current resources I have at the moment.

Schedule Feasibility: Medium- The timeline will depend on the project’s complexity.

Organizational Feasibility: High- The experience of the developer is very low.

Legal and Contractual Feasibility: Low- There is no contract or legal binding at present***.***

Additional Comments

Put whatever is appropriate here.

Conclusion

Overall I can see some moderate challenges that can be managed with careful planning.

4.0 Requirements Definition

Introduction

This section will outline the functional and non-functional requirements of the Chef’s Adventure application.

Functional includes the actions the system must perform, while the non-functional requirements include the attributes of the system.

Functional Requirements

* Must have Recipe Management: Users can add, delete, and edit recipes
* Could have Search Functionality: Users would be able to search for recipes and ingredients based on keywords or categories.
* Must-have categorization: Users will be able to categorize recipes into breakfast, lunch, dinner, dessert, and snacks.
* Must have a checklist: Users can create a checklist for ingredients and cooking steps for each recipe.
* Should have a User Account: An option would be having a feature that allows users to create accounts to save and access personalized recipes.
* Won’t have integration with Grocery Stores: Users will not be able to purchase ingredients directly from within the app.

Data Requirements

Recipe Data: Recipe ID, Title, Categories, description, and serving Size.

Ingredients Data: Ingredients ID, Name, Quantity, Measurements, Recipe ID.

Steps Data: Steps ID, Recipe ID

Non-functional Requirements

* Security: User data should be safe and stored securely to prevent unauthorized access.
* Usability: The app should be accessible to users of all skill levels.
* Performance: The system should respond within an appropriate time.

5.0 Requirements Model

Introduction

The use-case Diagram shows the interaction between the user(actor) and the actions the user can perform on the app. The diagram shows the functionalities of the app, including adding recipes, adding ingredients, adding steps for cooking, a way to search for recipes, and a checklist for completion.

Use-Case Diagram

A diagram of a chef's adventure

Description automatically generated

## Use-Case Descriptions

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name:**  Add Recipe | | **ID:**  RE111 | **Importance**:  It must have a Recipe ID, Title, Category, and description. It should have a serving Size. It won’t have a sharing function. |
| **Primary Actor:**  User | **Use Case Type**:  Detail, Essential | | |
| **Supporting Actors:**  N/A | | | |
| **Stakeholders and Interests:**  Users: The user want to add a new recipie to the app and they want it to be work well. | | | |
| **Brief Description:**  The user will find a recipe they would like to add on to the list. Then they will add the recipie to try at the moment or later on. | | | |
| **Trigger:**  User wants to add a recipe.  **Type** (mark one): \_X\_\_ External \_\_\_ Temporal (rare) | | | |
| **Relationships**:  **Association**: The user associates with the system to add new recipies.  **Include**: Add a ingredient that matchs the recipe. Add Steps for the recipie.  **Extend**: The user can search for recipies after adding a recipie.  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   * User finds the add recipe Section * The user adds in the recipie, tilte, ingredients, steps, description, category and any other optional addition. * Adds the recipe * The rcipie gets added to the users collection * End. | | | |
| **Sub-****flows:**  N/A | | | |
| **Alternate/Exceptional Flows:**  N/A | | | |
| **Special Requirements:**  Performance  1.The app should add in the recipie within 15 seconds.  User Interface  1. The app should be easy to navigate.  Security  1. The app should not share any information of the user to outside sources. | | | |
| **To do/Issues:**  The user should be able to edit and delete recipies after adding them. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name:**  Add Ingredients | | **ID:**  IG222 | **Importance**:  It must have a Ingredients ID, Name, Quantity, Measurment, and description. It should have a check list. It won’t have a way to buy the ingredients off the app. |
| **Primary Actor:**  User | **Use Case Type**:  Detail, Essential | | |
| **Supporting Actors:**  N/A | | | |
| **Stakeholders and Interests:**  Users: The user wants to add ingredients accurently. | | | |
| **Brief Description:**  The user will add a ingredients that match the recipe that was added. | | | |
| **Trigger:**  User wants to add an ingredients.  **Type** (mark one): \_X\_\_ External \_\_\_ Temporal (rare) | | | |
| **Relationships**:  **Association**: The user associates with the system to add new ingredients.  **Include**: N/A  **Extend**: Checklist  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   * User finds the recipie they want to add the ingrendients into. * The user finds the add ingredients section * The user adds in the ingredient for the recipe, like name, quantity, measurement, and any optional additons. * The ingredient gets added to the recipie * End. | | | |
| **Sub-flows:**  N/A | | | |
| **Alternate/Exceptional Flows:**  N/A | | | |
| **Special Requirements:**  Performance  1.The app should add in the ingreident within 15 seconds.  User Interface  1. The app should be easy to navigate.  Security  1. The app should not share any information of the user to outside sources. | | | |
| **To do/Issues:**  The user should be able to edit and delete recipies after adding them. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name:**  Add Steps | | **ID:**  ST333 | **Importance**:  It must have a Steps ID and cooking steps. It should have a checklist. It won’t have a video tutorial. |
| **Primary Actor:**  User | **Use Case Type**:  Detail, Essential | | |
| **Supporting Actors:**  N/A | | | |
| **Stakeholders and Interests:**  Users: The user want to add steps for cooking the recipies. | | | |
| **Brief Description:**  The user adds steps for cooking the recipies added and will later use them to cook. | | | |
| **Trigger:**  User wants to add a steps for cooking the recipies.  **Type** (mark one): \_x\_\_ External \_\_\_ Temporal (rare) | | | |
| **Relationships**:  **Association**: The user associates with the system to add steps.  **Include**: N/A  **Extend**: The user can use the checklist to check off steps already used.  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   * User wants to add steps for the recipies. * User finds the add steps Section * The user adds in the steps including the descripiton and any other optional addition. * Adds the steps * The steps gets added to the recipe. * End. | | | |
| **Sub-flows:**  N/A | | | |
| **Alternate/Exceptional Flows:**  N/A | | | |
| **Special Requirements:**  Performance  1.The app should add in the steps within 15 seconds.  User Interface  1. The app should be easy to navigate.  Security  1. The app should not share any information of the user to outside sources. | | | |
| **To do/Issues:**  The user should be able to edit and delete steps after adding them. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name:**  Search Recipes | | **ID:**  SR444 | **Importance**: Usrrs must be able to search for recipies based on keywords or categories. Users should be able to save faviorte recipies. It won’t have an advance search function like filtering. |
| **Primary Actor:**  User | **Use Case Type**:  Detail, Essential | | |
| **Supporting Actors:**  N/A | | | |
| **Stakeholders and Interests:**  Users: The user wants to find a specific recipie from their collection. | | | |
| **Brief Description:**  The user will search and find a specfoc recopie from the recipies they have collected and saved. | | | |
| **Trigger:**  User wants to find a recipe.  **Type** (mark one): \_X\_\_ External \_\_\_ Temporal (rare) | | | |
| **Relationships**:  **Association**: The user associates with no one else.  **Include**: N/A  **Extend**: N/A  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   * User finds the search function in the app. * The user enters the keywork or category to find the recipie. * Clickes search * The app shows the relevant recipis. * The user selevys yje recipe they want. * End. | | | |
| **Sub-flows:**  N/A | | | |
| **Alternate/Exceptional Flows:**  N/A | | | |
| **Special Requirements:**  Performance  1.The app should show the search results within 15 seconds.  User Interface  1. The app should be easy to navigate.  Security  1. The app should not share any information of the user to outside sources. | | | |
| **To do/Issues:**  The user should be able to use filters to narrow down the search results. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name:**  Clicks Check | | **ID:**  CL555 | **Importance**:  The user must be able to click the check. Users should be able see the check button on the recipie details page. Users won’t be able to see any kind of video refernce. |
| **Primary Actor:**  User | **Use Case Type**:  Detail, Essential | | |
| **Supporting Actors:**  N/A | | | |
| **Stakeholders and Interests:**  Users: The user wants to mark the completion of using a recipie or steps. | | | |
| **Brief Description:**  When finished with using a recipie or steps users will be able to click check. | | | |
| **Trigger:**  User wants to confirm the completion of a step or recipie .  **Type** (mark one): \_X\_\_ External \_\_\_ Temporal (rare) | | | |
| **Relationships**:  **Association**: User.  **Include**: N/A  **Extend**: N/A  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   * User finishes using a recipie or a step for cooking. * The user will look for the check button on the recipie or steps page. * The user will click the button to confirm completion. * The app shows the relevant recipis. * End. | | | |
| **Sub-flows:**  N/A | | | |
| **Alternate/Exceptional Flows:**  N/A | | | |
| **Special Requirements:**  Performance  1.The app should show the check mark within 15 seconds.  User Interface  1. The app should be easy to navigate.  Security  1. The app should not share any information of the user to outside sources. | | | |
| **To do/Issues:**  The user should be able to see the lable of the check button clearly on the pages. | | | |

6.0 System Evolution

Some upgrades that could be implemented include an advanced search feature, a social media feature, and a multimedia implementation. I would like to add filters for the search feature so that it will make searching and finding a recipe faster and easier. I would like there to be a way to add a social media feature so that users can share their recipes and meals and comment on other people’s posts. I would also like there to be a step-by-step video guide for recipes.

7.0 Conclusions and Recommendations.

The development of this app will add to the many great cooking apps out there. This app will serve as a great addition for people who value having their own recipes. Writing recipes, ingredients, and steps can be hard to keep track of, so having an app to keep track of all of those can be very convenient.

I have established a roadmap through the use-case diagram and the detailed use-case description. I have also listed out the functionalities of the app like adding recipes, adding ingredients, adding steps for cooking, a way to search for recipes, and a checklist for completion.

Some recommendations will be to focus on the performance of the app as well as the implementation of the upgrades in the future.

# **Appendices**

Cameron, A. (n.d.). Panopto. https://spu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=4f4ab69e-60bd-4264-adc5-b1630175a9f5

# **Glossary**

* Feasibility: The assessment of whether a proposed project or system is practical and achievable within specified constraints, considering factors such as technical, financial, organizational, and legal aspects.
* Functional Requirements: Specifications that outline the specific functions, features, and capabilities a system must possess to satisfy user needs and achieve its intended purpose.
* Non-functional Requirements: Specifications that describe system attributes, qualities, or constraints, such as performance, usability, reliability, security, and scalability, which are not directly related to specific functionalities but are crucial for overall system effectiveness.
* Use Case: A description of a specific interaction or sequence of actions between a user (actor) and the system, depicting the user's goals, steps involved, and system responses to accomplish a particular task or achieve a specific objective.
* Tangible Benefits: Measurable and quantifiable outcomes or advantages resulting from the implementation of a system or project, typically expressed in terms of cost savings, revenue generation, increased efficiency, or improved customer satisfaction.
* Include: An included relationship represents the mandatory performance of another use case at a specified point.
* Extend: Extend relationships are used to incorporate optional behavior into a base use case; it is an extension of the base use case’s functionality.

# **Bibliography**

Cameron, A. (n.d.). Panopto. <https://spu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=4f4ab69e-60bd-4264-adc5-b1630175a9f5>

*Lucid visual collaboration suite: Log in*. (n.d.). <https://lucid.app/lucidchart/0b427f86-68d1-43e4-a3f7-e4ec94cfd6e3/edit?beaconFlowId=D71CE5F0A5E67367&invitationId=inv_e06814c9-a655-4e2e-b464-6d39fb3d56f8&page=0_0>