

UNIVERSITY OF HOUSTON – CLEAR LAKE

SENIOR PROJECTS

CINF 4388.01

Vision, Scope, and Project Plan Recipe5nd

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1 Problem Statement

1.1 Project background

The purpose of this project will be to create a recipe application for the Android line of smart-phones. More specifically, we will create an application that will allow users to find potential meals using ingredients already available to them.

1.2 Stakeholders

Because this is not a project being developed for a company where there is a significant investment of money and resources, we (the team) are the only stakeholders for this project:

- Ogheneovo (*Nova*) Abu
- Manuel Berlanga
- Ethan Hann
- Thu Le
- Mark Odom

1.3 Users

The users for this project is anyone with an Android smart-phone who has an interest in finding recipes using ingredients already in their possession. This includes anyone who cooks at home.

1.4 Risks

The following are risks associated with this project:

- The API (TheMealDB) becomes unavailable.
- There is a lack of communication between the project team.
- A member of the project team becomes sick during the course of the project.
- A member's computer stops working (BSOD, un-bootable, etc. . .).

These risks are discussed in more detail in Section 3.5

2 Vision of the Solution

2.1 Vision statement

The vision statement of this project is “To provide a cost effective tool for everyday cooks to plan meals.”

2.2 List of features

The following is a list of features that will be included as part of this project:

- Search recipes by ingredients – *allow the lookup of recipes based on user’s ingredients*
- Shopping lists – *allow the user to keep multiple shopping lists to track ingredients they may need*
- Favoriting recipes – *allow the user to favorite their frequently used recipes for quick access*
- Ingredients list – *allow the user to keep track of the ingredients they have*

2.3 Features that will not be developed

Because of the lack of time we have for the development of this project, the following features were discussed as possible additions in the future:

- Custom analytics – *track user history to display frequented ingredients and recipes from other users*
- Dietary requirements – *allow the user to filter recipes based on any dietary restrictions*
- Substitutions – *allow the user to view substitutes for various ingredients in the recipe*
- Social media integration – *allow the user to share their favorite recipes via social media*
- Add recipes – *allow the user to add their own recipes to the database*

3 Project Plan

The following sections will be a complete description of the project schedule, work breakdown, estimates, and deliverables for the project.

3.1 Statement of work (SOW)

The following is a list of features (modules) that will be developed in this project:

1. Search recipes by ingredients
2. Favorite recipes
3. Edit ingredients list
4. Shopping list
5. View favorites list
6. View details about a specific favorite

The following is a list of intermediate deliverables associated with this project and a brief description of each one:

1. Requirements specification – outlines the use cases, functional requirements, and non-functional requirements of the project
2. Design specification – describes the inner workings of the system from how data is handled to what the UI will look like
3. Test plans and test cases – documents describing how the testing will be handled
 - Each module of code will be tested individually by the programmer assigned to it.
 - Afterwards, peer testing will take place in which code will be shared and tested with other members of the team.
4. Bug reports - documents describing any bugs and steps to reproduce them that arise during testing
5. Source code for each module – code produced to meet the requirements set forth in the requirements document; follows an agreed upon set of coding conventions.
6. Final presentation of project – a final demo/presentation showing off the work done on the project

3.1.1 Effort estimates

Work Product	Effort estimate (weeks)
Requirements specification	1
Design specification	1
Test plans and test cases	2
Bug reports	0.5
Source code	8.5
Final presentation of project	1

Table 1: Estimates for the work products

3.2 Resource list

Listed below are resources that will be used for the development of this project and their descriptions. In Table 2, the availability is listed corresponding to each resource.

1. TheMealDB API – an open source recipe database which provides an easy to use JSON API
2. Physical/Virtual Android device – a smart phone that will be used to test the functionality of the project
3. Computers – the development platform on which the project will be built
4. Internet – a global system of interconnected computer networks that use the Internet protocol suite to link devices worldwide
5. Github – provides hosting for software development version control using Git
6. Discord – a chat client with voice and video capabilities

Resource	Availability
TheMealDB API	99.9%
Physical/Virtual Android device	100%
Computers	99.9%
Internet	99.9%
Github	99.9%
Discord	99.9%

Table 2: Resources and their availability

3.3 Work breakdown and estimates

Table 3 outlines the work breakdown structure (WBS), associated estimates, and the team member assigned to that work.

Task	Estimation (weeks)	Assigned Member
Requirements document	2	All team members
Design document	1	All team members
Search recipes by ingredients	4	Ethan
Favorite recipes	4	Ethan
Ingredients list	4	Mark
Shopping list	4	Manuel
View favorites list	4	Thu
View details about a specific favorite	4	Nova
Code integration	1	All team members
Testing and documentation	2	Mark does final QA testing. All team members individually test their own modules.
Debugging	1	All team members
Final Presentation	1	Thu

Table 3: Work breakdown and estimates

3.4 Project schedule



3.5 Risk plan

Table 4 shows the risks and their actions should they happen.

Risk	Probability	Impact	Priority	Actions
A team member's computer stops working.	3	5	15	<ol style="list-style-type: none">1. Team member will use a portable OS (Linux) that fits on a USB drive to continue work elsewhere.2. Team member will source a new computer.3. Team member will work on the project at UHCL open computer labs.
There is a lack of communication between team members.	4	3	12	The team will prioritize communication over other tasks to ensure that everyone is back on the same page.
A team member gets sick.	2	5	10	In this case, the tasks will be rearranged to fill the team member's role.
TheMealDB API goes offline and is unavailable.	1	4	4	The research manager will find a new API that satisfies the needs of the project in a timely manner.

Table 4: Risks and their actions