



Faculty of Engineering and Applied Science

SOFE 3490U: Software Project Management

## Feasibility Study Documentation: Cool Crunchy Cocktail

March 16, 2023

Group 2

Team members

Nathaniel, Ashkat, Parasjeet, Javier, Susan, Sehaj

# Introduction

Cocktails are a great drink to have in the winter season. Our team will be creating a website where the user can search up for any recipes, images of specific cocktails and ingredients. Users will be given the option to filter their results by alcoholic and non alcoholic drinks.

The associated Github link for this documentation: [Cool Crunchy Cocktails Github](#)

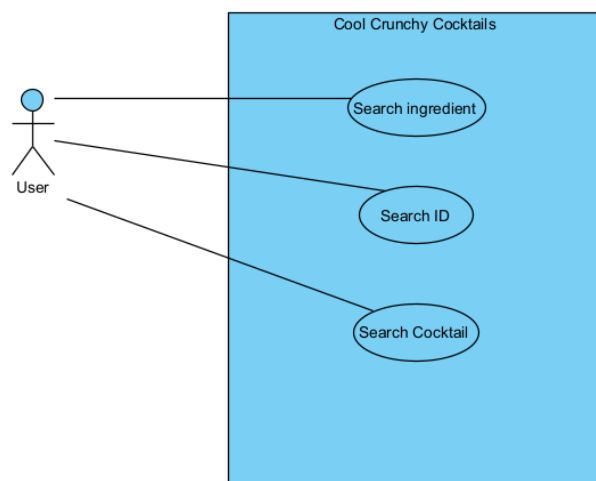
## Proposed Project

Our project, Cool Crunchy Cocktail is a website that uses a API database to execute commands to relay data based on cocktails.

### Requirements

1. User shall be able to search up cocktail by name
2. User shall be able to search ingredients by name
3. Users will be able to lookup full cocktail details by ID
4. Users file contents will not be displayed on the screen when using the application

### Use Case



## The Market

Our market applies to people that like to drink beverages on a daily basis and use cocktails to relax.

This includes:

- Retired individuals
- People who like to go to bars/clubs
- Bar tenders
- Baristas
- Heavy drinkers

## Organizational & Operational Infrastructure

Our operational infrastructure will use basic interactive communication where everyone is face to face. Seeing it face to face, the project must be completed in a short time, we will be building this website using a **Evolutionary Delivery - prototype.** The communication within our group will also have different levels as everyone has different tasks, the back end developers and front end developers will be communicating with each other and report directly to the project manager and team leader.

## Project's Objectives

Project Authorities
The Project Authority for the Smart Health prediction system includes: Susan and Javier
Stakeholders
Stakeholders include: Dr. Anwar, customers of application, bar/club owners
Objectives
1. Make a web application that will allow users to be able to view search ingredients and cocktails
2. Web application should be user friendly and appealing
3. The screen of the web page should not display private files from the user

4. Develop user friendly application
5. Efficient system (project done in shortest amount of time, least LOC's used, application runs on all platforms and resources, testing and assessing successful)

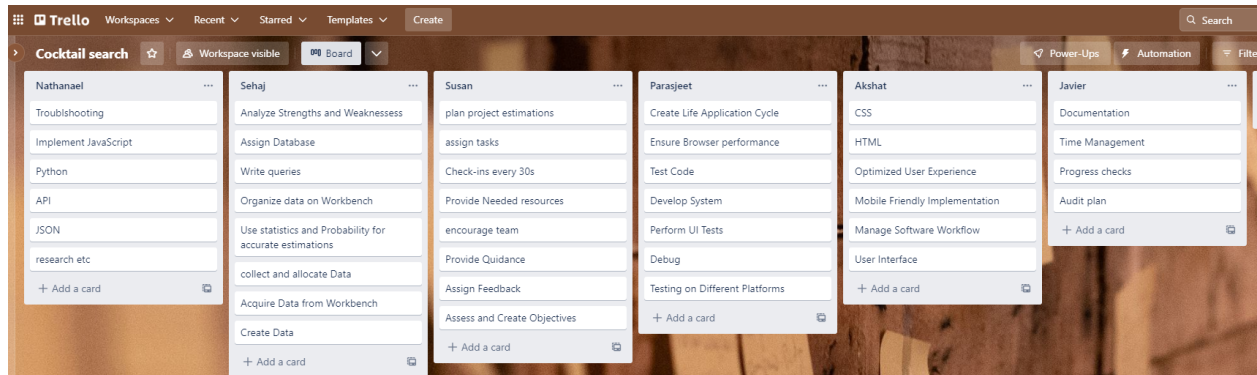
## Measures of Success

1. Inputting cocktails, ID and ingredient names and having the expected result return.
2. The System contains a database that the user will be able to get information from.
3. Customers will return and want more applications made by our team
4. There are little to no bugs with the application

## Resources Required & Approach

- Visual studio code (45mins)
- Planning (10mins)
- Hardware: computer system
- Sharing application: Discord
- Project team
- Data analyst
- Developer
- Tester
- Project budget
- Table
- Task management software: Trello

# Task Distribution



## Outline Implementation plan

Team Members	
<b>Nathanael Selvaraj</b>	<b>Lead Programmer</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Troubleshooting</li> <li><input type="checkbox"/> implement javascript</li> <li><input type="checkbox"/> Python</li> <li><input type="checkbox"/> API,</li> <li><input type="checkbox"/> JSON implementations</li> <li><input type="checkbox"/> research etc</li> </ul>
<b>Akshat Kapoor</b>	<b>Front end developer</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> CSS</li> <li><input type="checkbox"/> HTML</li> <li><input type="checkbox"/> Optimized user experience</li> <li><input type="checkbox"/> Works on user interface</li> <li><input type="checkbox"/> Mobile friendly implementation</li> <li><input type="checkbox"/> Managers software workflow</li> <li><input type="checkbox"/> Javascript</li> </ul>

<b>Parasjeet Marwah</b>	<b>Back end developer</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> create application life cycle</li> <li><input type="checkbox"/> Ensure performance runs on any browser</li> <li><input type="checkbox"/> Write code</li> <li><input type="checkbox"/> Develop system</li> <li><input type="checkbox"/> Troubleshoot</li> <li><input type="checkbox"/> Test code</li> <li><input type="checkbox"/> Debug</li> <li><input type="checkbox"/> Perform user interface tests</li> <li><input type="checkbox"/> Testing system on all platforms</li> </ul>
<b>Javier Chung</b>	<b>Project Leader</b> <i>(promoted to manager assistant)</i> <ul style="list-style-type: none"> <li><input type="checkbox"/> Documentation</li> <li><input type="checkbox"/> Time manage</li> <li><input type="checkbox"/> Complete progress checks</li> <li><input type="checkbox"/> Audit project plan and scope</li> <li><input type="checkbox"/> Problem solve issues developers come across</li> <li><input type="checkbox"/> Delegate tasks</li> <li><input type="checkbox"/> Document progress and process</li> <li><input type="checkbox"/> Note skills and weakness of team to better assign tasks</li> <li><input type="checkbox"/> Complete check ins every 15 minutes</li> </ul>
<b>Susan Ahmadi</b>	<b>Project manager</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Plan project estimations</li> <li><input type="checkbox"/> assign tasks</li> <li><input type="checkbox"/> Do check ins every 30 minutes</li> <li><input type="checkbox"/> Provide needed resources</li> <li><input type="checkbox"/> Encourage team</li> <li><input type="checkbox"/> Provide guidance</li> <li><input type="checkbox"/> Assign feedback</li> <li><input type="checkbox"/> Asses and create objectives</li> <li><input type="checkbox"/> Analyze strengths and weaknesses of team to better deliver project</li> </ul>

<b>Sehaj Behl</b>	<b>Data analyst</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Create data</li> <li><input type="checkbox"/> Assign database</li> <li><input type="checkbox"/> Write logical queries</li> <li><input type="checkbox"/> Organize data on workbench</li> <li><input type="checkbox"/> Use statistics and probability to determine best estimations</li> <li><input type="checkbox"/> Optimize user experience</li> <li><input type="checkbox"/> Collect and allocate data</li> <li><input type="checkbox"/> Acquire data from workbench</li> </ul>
-------------------	---

## Estimated Effort

### Function Points

#### External Inputs - 3

- Input ingredient names
- Input ID
- Input cocktail names

#### External Outputs - 1

- Display cocktail detail

#### External Query - 0

#### Logical Interface File - 0

#### External Interface File - 1

- Cocktail database

External User Types	Low Complexity		Medium Complexity		High Complexity		
Description	Estimate	*	Estimate	*	Estimate	*	Total
External Input	3	3	4	0	6		9

External output	4	1	5	0	7		4
External Query	3	0	4	0	6		0
Logical interface File	7	0	10	0	15	0	0
External Interface File	5	1	7	0	10	0	5
<b>Total Function Points (FP) = 9 + 4 + 5</b>							<b>18</b>

HTML is the main programming language in this project:

1 FP = 34 LOC in html according to the QSM table [1]

1 FP = 34 LOC [1]

LOC = FP \* 34

LOC = 18 \* 34

**LOC = 612**

## COCOMO

Software Projects	a	b	c	d
Organic	2.4	1.05	2.5	0.38
Semi-Detached	3.0	1.12	2.5	0.35
Embedded	3.6	1.20	2.5	0.32

## Estimated Effort

Effort	Development Time	Personnel Required (PR)
Effort = $a(KLOC)^b$ Effort = $2.4 * (0.6)^{(1.05)}$ Effort = 1.4 Person-Month	Time = $c * (effort)^d$ Time = $2.5 * (2.4)^{0.38}$ Time = 2.84 Months	PR = Effort/Time PR = $1.4/2.84$ PR = 0.49 → 1 personnel



Though the person months is large for the scope of this project, it will only take our group 1 hour to complete everything as our group consists of 6 people.

## Financial Analysis

Though the effort estimate is high, our group is only given an hour to complete this task.

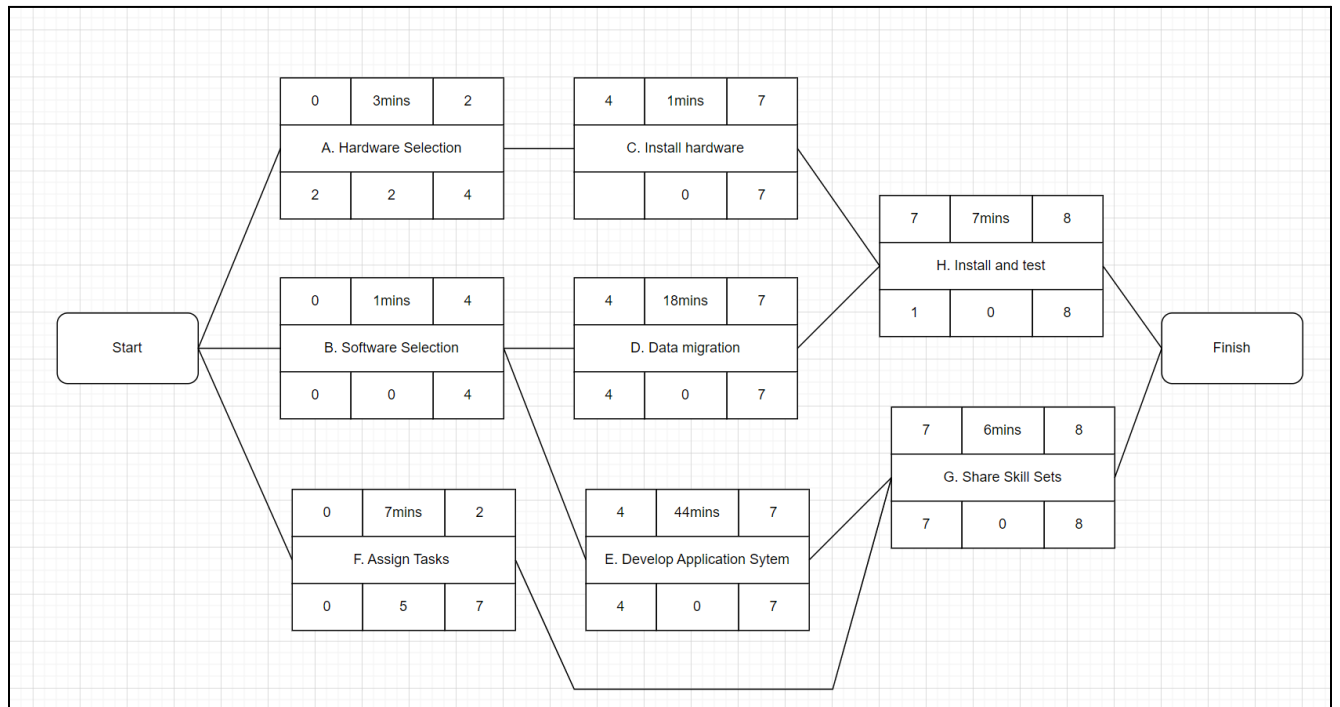
The main costs of the project are nothing as no one is getting paid.

The benefits of this project is that our team members gain experience, networking and a good grade.

## Risk Assessment:

Risks Associated:
1. Cyber attacks
2. Unreliable authentication services
3. Cross site scripting
4. Client protection and security
5. Access controls

## Activity Network:



## Work Cited

- [1] Admin. (2022, December 6). *Function point languages table*. QSM SLIM-Estimate. Retrieved March 6, 2023, from <https://www.qsm.com/resources/function-point-languages-table>