

Developing a Web Application For Cocktail Community Service: “For Your Cocktail”

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<https://github.com/silverwest8/MixBowl>

Abstract. Recently, the mainstream beverage market in Korea has been expanding rapidly with cocktails, wine, and whiskey. We have planned a project to contribute to this expanding beverage culture. However, this changing beverage culture is not yet popular among the general public. Through several surveys, we found that many people still do not know much about cocktails, wine, whiskey, and accessibility is not very high. Therefore, we decided to create a community site for cocktails, which we believe is the most popular among the general public. The community aims to provide high-quality information and active communication that satisfies everyone from beginners to bartenders and Craftsman Bartender. In addition, It can give them a special experience to make cocktail themselves.

This paper provides an overall description of the cocktail community web application that we have planned. It covers the frameworks and libraries used to create the web application, the technologies involved, and the features that will be implemented.

1 Introduction

‘For Your Cocktail’ is a web-based application that we have developed with the main purpose of popularizing cocktails. According to a survey we conducted, 52 out of 119 respondents, or about 44%, said they “like cocktails.” Among those who chose “dislike cocktails,” about 54% of respondents said they were unfamiliar with cocktails and pointed out lack of access to information. Through this survey, we confirmed that although the popularity of drinking cocktails has increased as a mainstream culture, it has not yet been fully popularized. Additionally, about 69% of the total respondents (82 people) expressed an intention to use a cocktail community service. Therefore, our cocktail application will focus on this aspect. The main function will be providing a community service based on cocktails. The detailed functions of the community are as follows:

1. Providing cocktail recipes and a user-based recipe recommendation function

2. Community functions by category:
 - Cocktail recommendations
 - Questions and answers related to cocktails
 - Cocktail reviews
 - Cocktail bar reviews
3. Sharing professional knowledge through bartender and Craftsman Bartender

We will provide more detailed explanations of these functions in the following sections.

2 Motivation and Objective

2.1 Motivation

Although the popularity of cocktails is steadily increasing, it is still difficult for beginners to enter the world of cocktails and there is a lack of information and community services. While there are a few cocktail-related apps, there are no apps that provide both community and cocktail information, or the recipe selection is insufficient. Additionally, the accuracy and specificity of cocktail information are lacking, and unfamiliar measurement units (oz) are used.

Survey results show that nearly half of the respondents were dissatisfied with the information they received. We wanted to create a website that is easily accessible for people who don't know much about cocktails to increase their understanding and interest in cocktails. We also wanted to attract existing cocktail enthusiasts. We expect this will lead to the spread of popular cocktail culture.

2.2 Objective

Our goal is to popularize cocktails and provide cocktail information and communities. Home cafes or home bars have become popular due to COVID-19, but there are no applications or websites that provide the right information. Therefore, these apps will make it easier for people who want to enjoy such hobbies to get information and communicate with each other, so they will be in the spotlight.

In addition, people with existing cocktails-related hobbies or jobs also use the community and provide various cocktail information and recipes to share information about cocktails. This makes it easier for users with cocktail-related hobbies or jobs to start making cocktails and share various recipe information.

Socially, existing applications focus on the information and manufacturing methods of cocktails, so they may seem a little unfriendly to people who are not familiar with cocktails. Therefore, the planned web application is expected to be more faithful to the 'Community' function and become more popular based on the popular taste evaluation of cocktails. In other words, by providing a website differentiated from the existing cocktail community, it is possible to expect a positive impact on the cocktail industry by activating the cocktail community and information provision services.

3 Background and Related Work

3.1 Background

As the time spent staying at home increased due to the prolonged COVID-19, demand for cocktails that mix liquor with specific drinks increased, especially among the MZ generation. Yangju, which was the exclusive property of middle-aged people, has increased the preference of MZ generation to enjoy their own unique cocktails such as highball.[1]

Recently, in Korea, the liquor market that does not contain alcohol or contains only a small amount is expanding to wine, whiskey, and cocktails. This is because more and more consumers are looking for alcoholic beverages that can be enjoyed without any burden due to the atmosphere of preferring alcohol with low alcohol content and increased face-to-face meetings.[2]

A survey was conducted on the demand for cocktails and cocktail communities and the collection of cocktail-related information. When asked where they get cocktail-related information, 40.3 percent of portal sites searched, 29.4 percent said they get it from acquaintances, and 26.1 percent said they never got it. Only 4.2% of the respondents said they get information from the web or app related to cocktails. Given that 95% of the respondents answered "no" when asked if they had ever used the cocktail-related web or app, it seems that they did not know whether there was a cocktail-related web or app. In addition, when asked where to get information on cocktail bars, portal site searches accounted for 47.9%, 23.1% for places such as map apps, and 14.5% for acquaintances and SNS, respectively.

3.2 Related Work

(A) Mobile Application

Four existing mobile applications were analyzed: 'Masilang', 'Shaker', 'Cocktail Flow', and 'My Bar'. The four basic functions were recommended, ingredient information, recipe description, and homemade recipe, and other functions were analyzed as special functions, and additional support languages and ingredient notation units were identified.

(i) Masilang

Masilang had all the basic functions of recommendations, ingredient information, recipe descriptions, and homemade recipes, and additionally showed cocktails that could be made with current ingredients, recommendations for beginners, filters, bookmarks, sharing, and various viewing methods. Only Korean is supported, and the material units are written in oz and ml. It is also the only one that can be accessed through a web browser.

(ii) Shaker

Shaker also had all the basic functions of recommendations, ingredient information, recipe descriptions, and homemade recipes like “Masilang.” Special features include showing cocktails, video recommendations, ‘like/dislike’ functions, filters, and bookmarks that can be made with the ingredients you have. It supports Korean and English, and the only material unit is oz.

(iii) Cocktail Flow

Cocktail Flow has only three basic functions: recommendation, ingredient information, and recipe description. It provides notes, filters, and capacity according to the number of people as special functions. Material units support the largest number of units, oz, ml, cl, and part. Part does not refer to a specific capacity, but represents a ratio by material. However, ‘Cocktail Flow’ does not support Korean.

(iv) My bar

My bar has only two functions as a basic function: recommendation and recipe description. Rating and reviews are provided as special features. Material units support oz, ml, and cl units. Like “Cocktail Flow,” “My bar” does not support Korean.

The results of the above analysis are shown in the table 1 below.

(B) Web Community

Cocktail-related communities operate on the web, including DC Inside Cocktail Gallery and DC Inside World Liquor Gallery. The characteristic of the two communities is that they open and manage a community with a subject that users want within a large site called DC Inside. Therefore, the form or format is not optimized for communication on the subject of cocktails, but only serves as a basic function as a community. In addition, the site itself is often reluctant to visit due to its very high degree of freedom.

However, DC Inside is currently the only cocktail-related community service, so there is no option to use other communities. As cocktail preferences and demand increase, there are categories suitable for communicating on the subject of cocktails, and emotional services that can show trust and expertise are needed.

According to a study on the loyalty of the Internet community, the following facts are known. First, a sense of community has a very great influence on loyalty. Second, increase online community awareness and loyalty when usefulness, fun, happiness, intimacy, and convenient interaction can be found in the community. Third, when establishing a community, it is necessary to provide necessary information, prevent unpleasant experiences such as abusive remarks, induce active participation, and provide services that facilitate interaction with each other[3]. Accordingly, by adding factors such as convenient interaction, providing necessary information, and inducing active participation that were not provided by the existing community, it is

Table 1. Analysis on Existing Application

Service Name	General Features	Special Features	Material Unit
Masilang	<ul style="list-style-type: none"> • Recommendations • Ingredient information • Recipe descriptions • Homemade recipes 	<ul style="list-style-type: none"> • Cocktails with current ingredients • Recommendations for beginners • Filters • Bookmarks • Sharing • Various viewing • Web access available 	<ul style="list-style-type: none"> • oz • ml
Shaker	<ul style="list-style-type: none"> • Recommendations • Ingredient information • Recipe descriptions • Homemade recipes 	<ul style="list-style-type: none"> • Cocktails with current ingredients • Like/Dislike • Filters • Bookmarks 	<ul style="list-style-type: none"> • oz
Cocktail Flow	<ul style="list-style-type: none"> • Recommendations • Ingredient information • Recipe descriptions 	<ul style="list-style-type: none"> • Notes • Filters • Capacity according to the number of people • Alternative materials 	<ul style="list-style-type: none"> • oz • ml • cl • part
My bar	<ul style="list-style-type: none"> • Recommendations • Recipe descriptions 	<ul style="list-style-type: none"> • Rating • Reviews 	<ul style="list-style-type: none"> • oz • ml • cl

possible to elicit a sense of community, usefulness, and intimacy to revitalize the service.

(C) Information on where to drink cocktails

It is true that you can find location information for cocktails on large portal sites such as Naver and Google. However, referring to the results of Question 10-1 of Survey, there are clearly parts that cannot be satisfied even with portal site searches. It is difficult to collect objective information because there are many advertisements. There are opinions that it only says that they sell cocktails, but it is not known what cocktails they sell, or that detailed taste descriptions or characteristics of each cocktail are often omitted.

Through this service, a platform will be formed to find information scattered around 'cocktail' at once, and as these data accumulate, it will be competitive.

4 Problems and Solutions

4.1 Problem statement

In recent years, there has been a growing interest in cocktails, with more people looking to learn about and experiment with different recipes. However, despite this increasing interest, there is a lack of suitable apps that offer a comprehensive collection of cocktail recipes, knowledge, and a platform for cocktail enthusiasts to share their experiences.

This gap in the market has been identified as a problem, as it hinders the ability of individuals to fully engage with the cocktail culture and limits the potential for growth within the industry. Of course, there are many existing cocktail apps, but they had several problems as stated before. Like insufficient information, lacking accuracy and specificity of cocktail information, or unfamiliar measurement units (oz), and so on. Moreover, the most critical thing is that none of them offers a place for people to talk about cocktails with each other. Some websites offer user interaction or community engagement, but it only serves that purpose, too. Also, there is no certified veteran who is trustworthy enough to get advice from. This means that individuals looking to expand their knowledge of cocktails often have to rely on multiple sources, switching between cocktail recipe apps, books, and online forums, which can be time-consuming and confusing.

4.2 Proposed solutions

So the solution we are offering is, the web-based app that combined all attributes mentioned earlier; which has both information and recipes of cocktail and community that anyone can talk about any cocktails. In addition, we'll implement a map that allows users can share their personal opinion and rating about cocktail bars. The features in detail are as following.

1. Cocktails and recipes

In this web app, many kinds of cocktails will be listed, and can be sorted or filtered as user's desire. Users can check each cocktails recipes, how many people liked it, and some other tips or modified recipes of it. People can comment the history of that cocktail, or share how its taste was. In the survey, 62.4% of people said that they chose cocktail based on taste. So it would be much easier for them to choose if they could check the taste of cocktails they haven't tried by checking other's comments on the cocktail. Also they can upload their own brand new cocktail recipes freely. Whether these homemade recipes are good or not will be decided by the users themselves, through the like/dislike feature. So the recipes got the most like will be shown topmost, while the one got too many dislikes will be removed. And for those who wanted to know the ABV(Alcohol By Volume) of the cocktail, we provides an algorithm for that. As shown in the equation below, we'll construct an algorithm calculating the ABV of any cocktail, including the homemade user-uploaded recipes.

Fig. 1. The cocktail ABV formula

$$\frac{(\text{Material ABV} \times \text{Usage}) + (\text{Material ABV} \times \text{Usage})}{\text{Total Usage}} = \text{Cocktail ABV}$$

2. Community

In the community, users can write, modify, delete their writings on the board freely. The topic could be anything related to cocktail according to the categories; Cocktail recommendation, Q&A, cocktail review, cocktail bar review, and free. They can share the information and ask about what cocktail is good in the certain situations, and so on. However, there's something different from the existing cocktail-related communities in this app. The questions users asked will be answered by the professionals, such as bartenders and craftsman bartenders. We'll drag them in by offering them the chance to promote their bars, so that the users can get trustworthy information about cocktails. From the survey, 83.9% people said that they would use the web app if it provides a cocktail info from bartenders and craftsman bartenders. Those 16.1% who said no were mostly those who don't enjoy cocktails, so it would be safe to say most people who are interested in cocktail would love to use such web app. Also, 29.9% people answered that they chose cocktail based on explanation or recommendation of bartenders, followed by 62.4% of people who chose taste as mentioned earlier. Thus the advice or information from bartenders would be really helpful for them.

3. Cocktail bars

Some people from the survey wanted to share information about cocktail bars. Also, 38.3% people said that they were unsatisfied with the result when they were looking for cocktail bars through map applications. So, in addition, we decided to implement the feature which users can share evaluation and ratings of cocktail bars. By using the map API, users can check the information of the cocktail bars, like the position, open time, atmosphere. As users can share each other's opinion in there, it is expected to be accurate and will be helper for those looking for a good cocktail bars. And this feature can be the way that bartenders advertise their bars, which will be the main motivation of them.

5 Project Plan

5.1 Role

Eunbi Kang, Youji Cho, and Byeongkyu Park will be in charge of developing the web frontend. Eunseo Choe and Taehoon Kim will be in charge of developing the backend.

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