SE3050 – User Experience Engineering

Lab Sheet 4

Plan and conduct user research.

User Research Plan

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Introduction

In this project our goal is to enhance the application that we chose previously with much more user-friendly interfaces and functions. Application is mainly related to cooking and recipe management. This application provides the functions such as view recipes added to the application, Users can filter the recipes using the category page. Once they click on a recipe item they can generate a detailed information page related to that particular item. We also thought of adding some new functionality to the application where users can add new recipes. Once a user publishes their recipes, the admin will validate them before making them publicly available. This will also include deleting recipes. Current application also supports creating bookmarks and adding items to favorites. This function will be maintained the same as it exists with some UI tweaks. We will carry out the research to determine what kind of impact will be there to the from our enhancements to the overall user experience of the existing application.

In our research, we are targeting two types of users to determine their opinion related to using the application. This will also help us determine if there's any other upgrades that need to be done. Or whether the application has a pleasant experience with the user. Finally, we will in detail evaluate the information that we are getting through the user research and questionnaire. This will ultimately help us to get a better understanding about the product and requirements that should be there to compete with other similar products out there in the market.

- In order to identify the issues in the applications.
- In order to identify the improvements that needed to do in the application.
- In order to identify the User knowledge and skills about this topic.
- To identify the users' ideas about this application.

Methodology

How User Research Conducted: We conducted user research as a public survey by preparing questions about each function and other
Location: Online
Number of Participants: 95
Equipment's : Google Form, WhatsApp/ Email (Share Resources)

Interviewing

Refer to attachments below for the data analysis of the interview and scripts are attached below.

video recording

Full video Interview with two users attached to this document below.

Questionnaire

 Below in this document we have attached the sample questionnaire as well as the data analysis we performed on the collected data.

Participant Profiles

In our project, we selected users for Undergraduate cooking interns and undergraduate students according to the created personas.

The undergraduate girl lives in a rented boarding house with her friend. Studies in a campus. After a long day of studying she likes to learn new recipes. Her hobby is cooking new recipes and uploading photos on instagram. She wants to learn new recipes and cook those in my leisure time and make trending recipes and upload images on instagram. She haven't idea how to make trending foods and wants to learn recipe tips. Her main goals are to make new foods in her leisure time and make trending food and upload on instagram and like to get feedback

Undergraduate cooking intern wants to deliver the best possible recipes to customers.He needs to find online materials that help him to learn to cook and compete with other fellow chefs.Love to
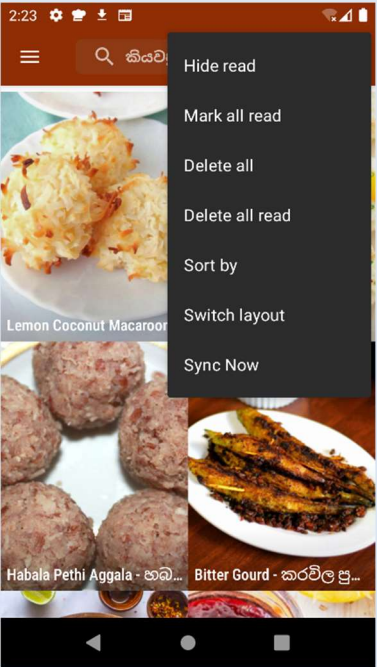
cook with others. He wants to teach traditional and Sri lankan recipes and he wants to open a restaurant. His main goals are to deliver the best possible recipes and compete with other fellow chefs.
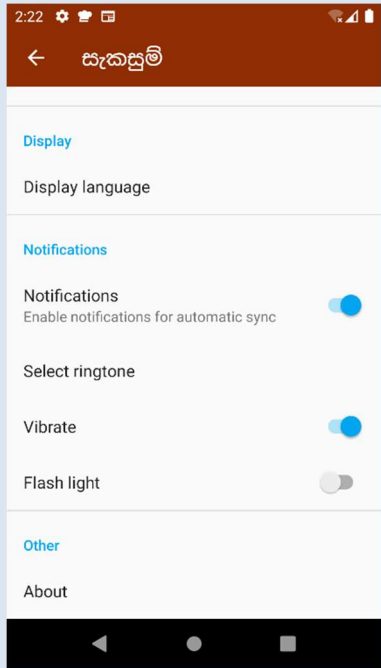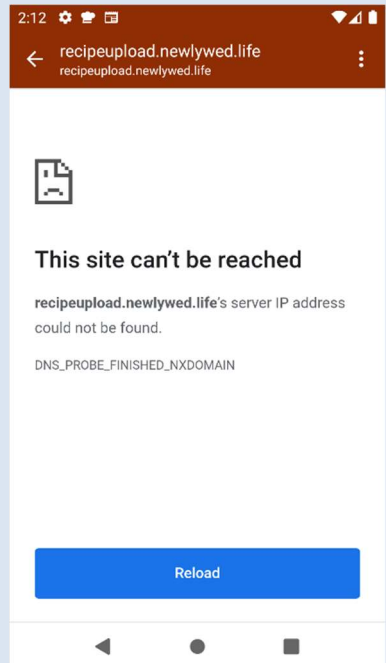
The table below provides a breakdown of the participants selected for testing:

Name	Demography	Location, Date and Time
User 1 - Heshan Nethmal	Age - 22 years old, undergraduate in cyber security, Cooking as the main hobby.	Interview date 2021/8/20, Interviewed via Microsoft Teams.
User 2 - Gayathri Vidarshana	Age - 24 years old, undergraduate in information technology, Cooking trending foods as the main hobby.	Interview date 2021/8/19, Interviewed via Microsoft Teams.

User Research – Tasks/Scenarios

No.	Task Instruction	Target	Probes
1	- Here I am going to test whether user can identify the way to find the relevant fried rice type and find the recipe list for that fried rice - Users need to first identify the way to find the path to the category lists - Then need to identify the name of the fried rice by the name in relevant category - Then need to find the recipe list by entering to the type of rice - Users need to start using the step of instructions given above and need to identify the target and get exposure about the application	Find the recipe list for Teriyaki chicken fried rice	- What exactly you mean the fried rice type - Can you give a hint to find the category lists? - Is the recipe list situated in the category list? - Do I need to mention the way to find this target?

2.	• Here I am going to test whether user can change the layout of of an item category • *He or she must first navigate into the homepage* • *And on the top right corner there's a drop down with multiple options.* • *Within that option the user can then select the relevant layout he needs.* • *Users can also decide if he or she wants to apply those changers to the home view or entire application.*	Change the layout of the home interface or Entire application	• Can you give a hint to find the dropdown with multiple options. • Drop down menu contains some unnecessary features..
3.	• Here I am going to test whether user can change the preferred language in this application • *Here user Once open the application and click the sidebar icon*	Change the language configurations in settings	There was a bit of confusion with this function as the localization function is not properly working in the application.

	● Then the user can scroll down in the sidebar then you can see settings *● Click on settings and then settings page will open* *● Then under the Display setting the user can see Display language and select it.* *● Then the user can see the language options menu.* *● Then the user can select a preferred language from that menu.* *Finally the selected language will be applied to the application.*		
4.	● Here I am going to test whether user can add a recipe to this application ● Here the user opens the application and can see the home of the application. ● Then user can select the sidebar icon in top left then the sidebar menu will displayed ● Then user can see add recipe details then once select it user will be navigated to web browser Finally the user will be redirected to a broken web page.	Adding a personal recipe to the application.	In the original application adding a food item function is not working. User was left out with a broken page once clicked on the adding food item option in the sidebar navigation.

5.	• Here I am going to test whether user can search a recipe by giving a keyword • Here the user opens the application and can see the home of the application. • Then user can see the search bar in top of the home page • Once user select it user will provide the keyword and press scratch button • Then the search results will be shown.	Search Food Items in the Application.	As it turns out, search is not precise. We saw that sometimes applications filter out irrelevant search results for what we are actually searching. Following result came when the user searched for the below food item.

Plan for Data analysis

Interviews

Interview Outcomes

Two users were interviewed via Microsoft team sessions. Before starting the session, we gave them a simple walkthrough into the application and asked them to follow the scenario that we came up with for each user.

Previously, when we experienced an application, we saw numerous places where the application does stand up to the standards. Then we were eager to find out if the same thing would reflect if someone else used the application without us pointing out anything that we learned from using it.

Then we came up with a simple set of questions, and we asked them to determine whether they felt exactly what we felt during the usability test.

This concludes in various ways depending on the persona and the background he or she came from.

We saw that the first user who is an undergraduate student following a cyber security degree tends to catch more technical faults and places where the application should be much more enhanced programmatically and technically whereas the second user who is more into cooking saw more improvement from the content and the way they have delivered it.

Commonly almost all the defects that we identified previously have been evaluated by both of them during the interview. Especially the broken data insertion page and the nonfunctioning settings page options. They both seem not satisfied with the layout and the presenting mechanism used by the original developers. This forces us to change it with a much more modern looking user-friendly interface.

Another thing that took our concern was some users felt that some of the functions that come with the application are not relevant and should be removed. One of them was the flashlight function in the settings page. Regardless of the broken flashlight that they have included in the original app, Interview ultimately showed us how the scope of the app should be reflected to enhance the overall experience of the actual user.

Video recordings

Link : https://mysliit-my.sharepoint.com/:v:/g/personal/it19086408_my_sliit_lk/ERIRqD7KgEdKmWjNCU9b2hwBOTXCn7nKr8__MHQ7WB1tyw?e=Xs4oBg

Link will be expired 25 September 2021

Detailed analysis related to the interview done in the above section.
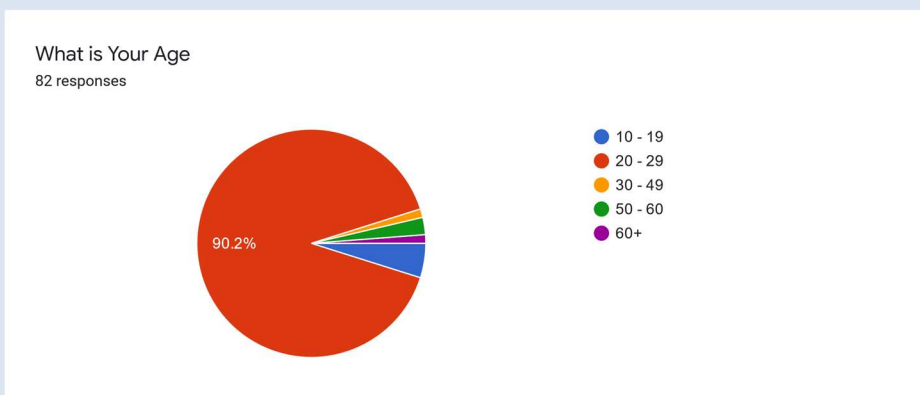
Questionnaires

1. What is Your Age
2. What is Your Occupation
3. Gender
4. Which way you prefer most to find recipes
5. What is your favorite recipe type?
6. Do you have experience using Cooking Related Mobile Applications?
7. Do you know about the iwum pihum app in the android play store?
8. If No, can you name an alternative application?
9. Is that app user friendly...?
10. Did you experience the offline working capabilities of that app??
11. Did you experience any functionality to search recipes by Categories or Name in that app?
12. Did you experience the functionality to bookmark the recipe in that app?
13. Did you experience the functionality to save recipe browsing history of that app?
14. Are you satisfied with the amount of details that come with the application?
15. Does that App have a settings page?
16. Can you rate your experience you had with the settings page?
17. How Much are you trying out these recipes in the app?
18. Are you able to add new recipes to the app?
19. What is your favorite feature of the app?
20. What kind of improvements would you like to see in this app?

Results in spreadsheet
https://docs.google.com/spreadsheets/d/1L2Cj3ET7F8Se0NkvGKdKXsgLDM-nHxtrjxOi70l5HjM/edit?usp=sharing
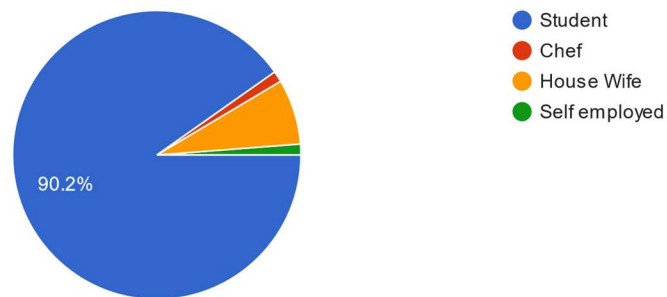
Data analysis on questionnaire.

Following details is the finding of a qualitative and quantitative user research related user experience evaluation of an existing mobile application "Iwum Pihum". The is mainly a cooking guidance application that provides users with detailed recipe details and cooking procedures. The idea behind this research is to find out the user's thoughts and feedback related to the overall user experience and ease of use of the application UI. Following is the detailed tiered down and the conclusion of a total, 80 responses gathered via the questionnaire.

What is Your Age
82 responses

- 10 - 19
- 20 - 29
- 30 - 49
- 50 - 60
- 60+

90.2%

Above pie chart represents information regarding the age of those who participated in the survey. Majority of the chart is being taken by the 20-29 age of people which is 90.2% compared to the total consideration. After that 2nd most who participated in the survey age gap is 10-19. Other age gaps which are 50-60, 30-49 and more than 60 participated the minimum number of people in the survey.

What is Your Occupation
82 responses

- ● Student
- ● Chef
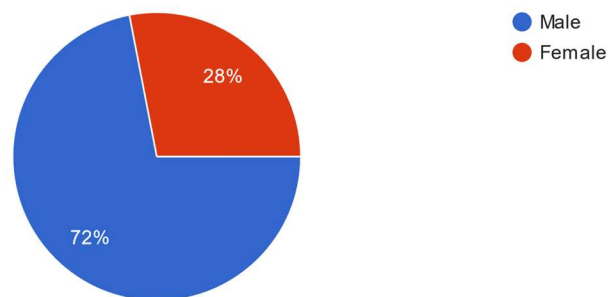- ● House Wife
- ● Self employed

90.2%

This pie chart gives information about the occupation of the people who participated in this survey. The majority of the chart is taken by the student which is 90.2% compared to the total consideration. The second place taken by the housewife and self-employed and chef represents the same percentage.
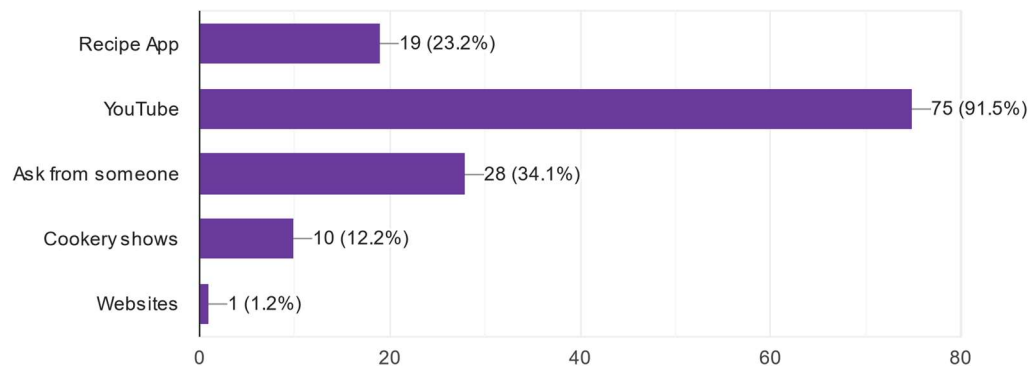
Above graph

Gender
82 responses

- ● Male
- ● Female

28%

72%

This graph represents the gender types that using this application, so the majority is male users that is 72% and the female users are 28%

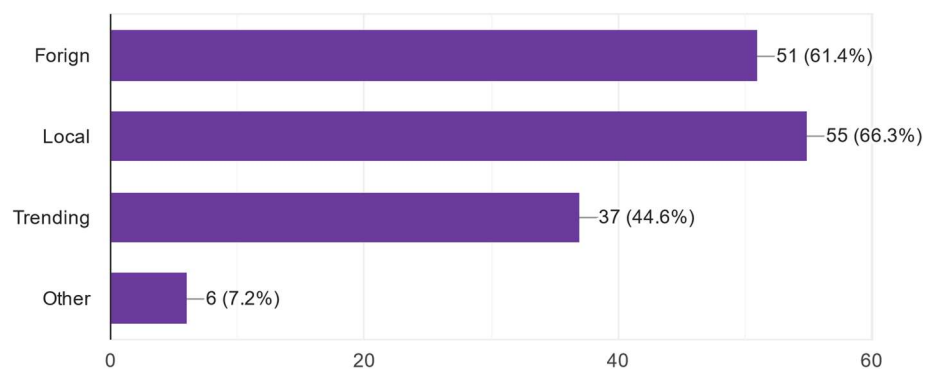## Which way you prefer most to find recipes
82 responses

Category	Value
Recipe App	19 (23.2%)
YouTube	75 (91.5%)
Ask from someone	28 (34.1%)
Cookery shows	10 (12.2%)
Websites	1 (1.2%)

This bar graph shows what kind of ways users prefer to find recipes. So, the majority of users are using YouTube for their recipe search and at the second place, They are asking for someone to learn about recipes, and thirdly users will use a recipe app. Finally, users will look at cookery shows and websites.
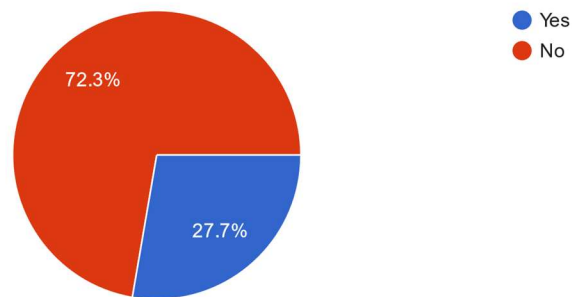
What is your favorite recipe type
83 responses

Category	Value
Forign	51 (61.4%)
Local	55 (66.3%)
Trending	37 (44.6%)
Other	6 (7.2%)

This bar chart shows what kinds of recipe types of people would like to refer to using this app. The majority of the people prefer local recipes. It's given 66.3 percent. Secondly, most prefer foreign recipes with a size given as 61.4%. 44.6% of people like trending foods and few people like other recipes as well. It's represented as 7.2%.

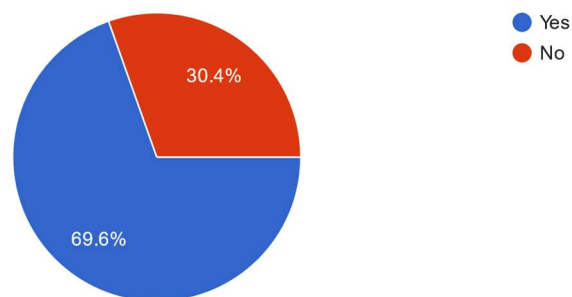**Do you have experience using Cooking Related Mobile Applications**
83 responses

● Yes
● No

72.3%

27.7%

The above graph supports the fact that most of the users are not familiar with the mobile cooking application. This proves that it is sort of a new experience for them as well.

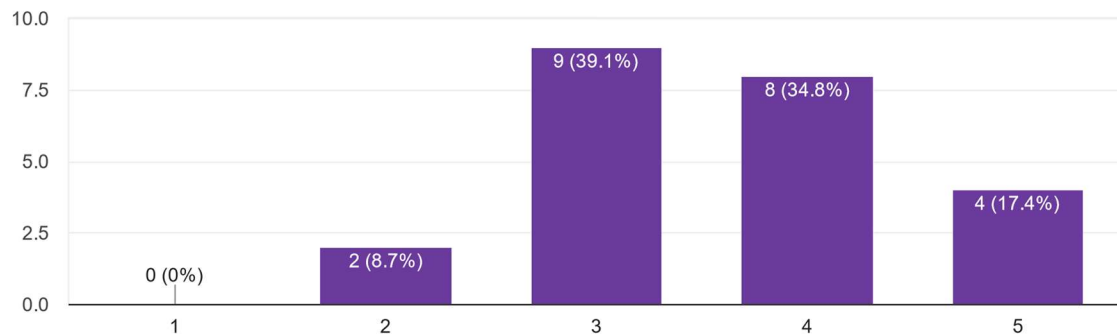**Do you know about the iwum pihum app in android play store ?**
23 responses

● Yes
● No

30.4%

69.6%

Regardless of either not knowing or not being familiar with cooking applications most of the reported users have experience using the "Iwum Pihum" Mobile application. To be specific 69.6% out of a total number of users have hands-on experience with the app.

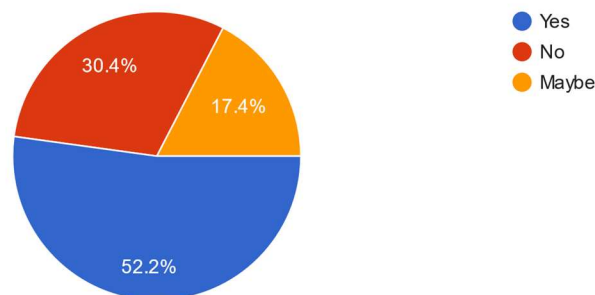## Is that app user friendly..?

23 responses

This bar chart represents a rating about the user-friendliness of the application. So the lower bar represents users who strongly disagree and the highest bar represents users who strongly agree.
Most of the users tend to give 3 as their rating while 34.8% of them provide 4 as their value of rating. Only 17.4% only provides the maximum rating amount of what we have defined in the questionnaire.

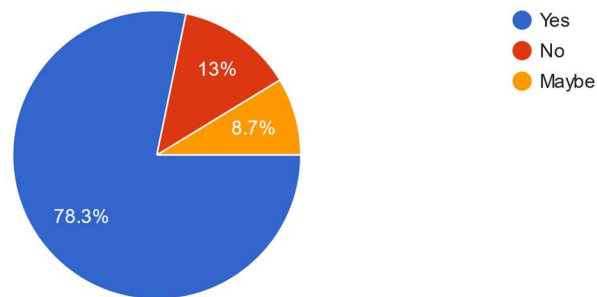## Did you experience offline working capabilities of that app??

23 responses

The above Pie charts show that 52.2% of users have no issues working with the application while being disconnected from the internet. The remaining number of users are either not sure or have no access to the app without internet. In our conclusion, we suspect, applications tend to behave differently from one device to another while working in disconnected mode.

Did you experience any functionality to search recipes by Categories or Name in that app?
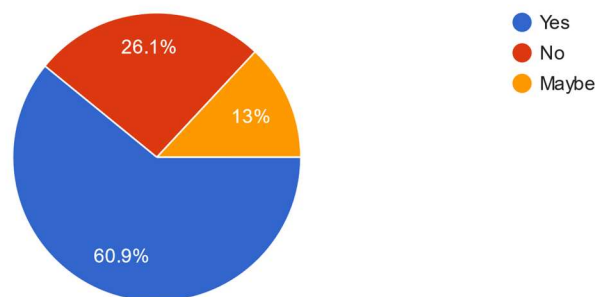
23 responses

● Yes
● No
● Maybe

13%

8.7%

78.3%

78.3% of users claim that they were successfully able to search recipes by categories and name while 13% of them denied that.

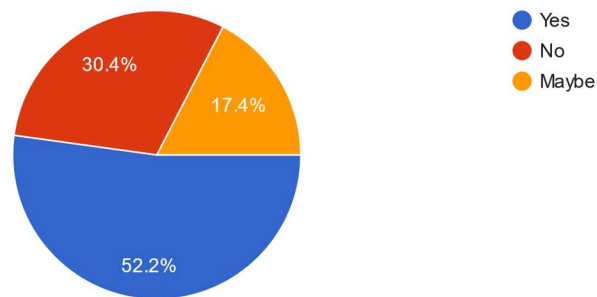**Did you experience the functionality to bookmarked the recipe in that app?**

23 responses

● Yes
● No
● Maybe

26.1%

13%

60.9%

In our study, we personally experience that bookmark functionality is sometimes not working accordingly, above graph support that conclusion perfectly since 26.1% of them claim they weren't able to bookmark recipes while they using the application.

Did you experience the functionality to save recipe browsing history of that app ?
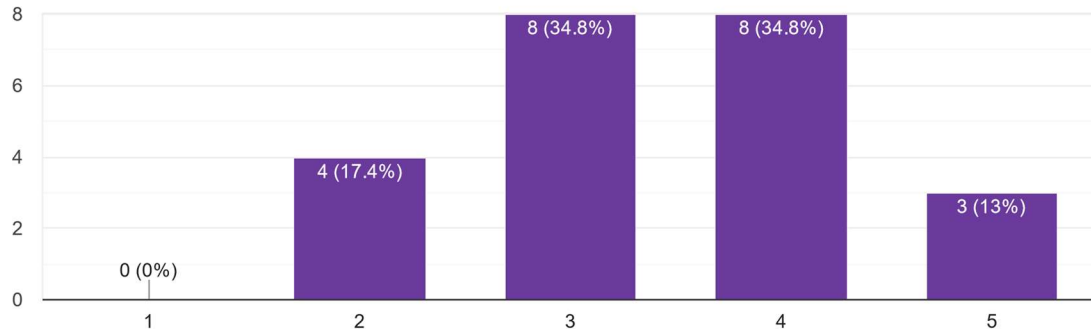
23 responses

- ● Yes
- ● No
- ● Maybe

30.4%

17.4%

52.2%

Even though the basic functionality to fetch user history is there in the app, most of the time we were unable to get a detailed list of previous recipes that users have been through. From the details, we collected it further verify that while 52.2% were able to fetch previous details while remaining users were unable or not exactly known the possibility of getting recipe details.

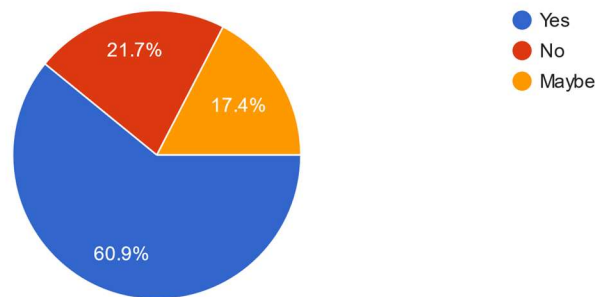**Do you satisfied with the amount of details comes with the application?**

23 responses

The above graph represents the satisfaction of the users regarding the informativeness of the application. The X-axis represents the voting values and Y-axis represents the number of user responses. An equal number of users rate 3 and 4 as their rating for the overall user experience and the number of details that come with the application.
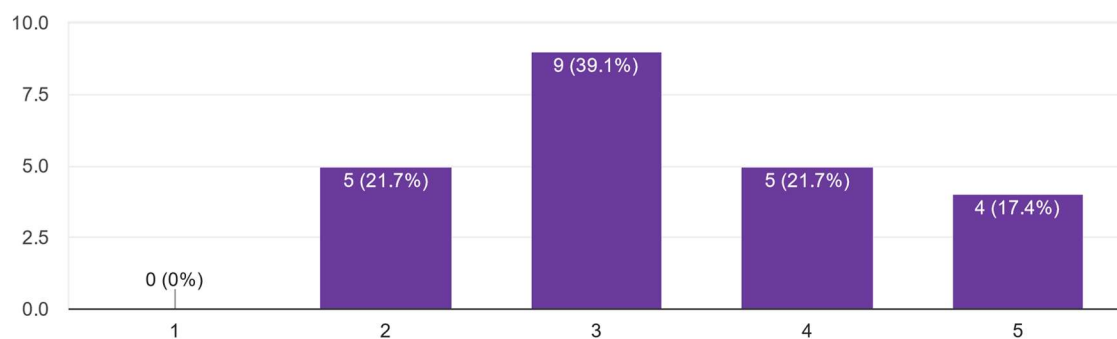
Does that App have a settings page
23 responses

- ● Yes
- ● No
- ● Maybe

21.7%

17.4%

60.9%

60.9% of reported users claim that the app comes with a fully functional settings page. However, according to the above chart experience with the application, It turns out ¼ of the total users are having issues with the settings and the preferences that come with the application.

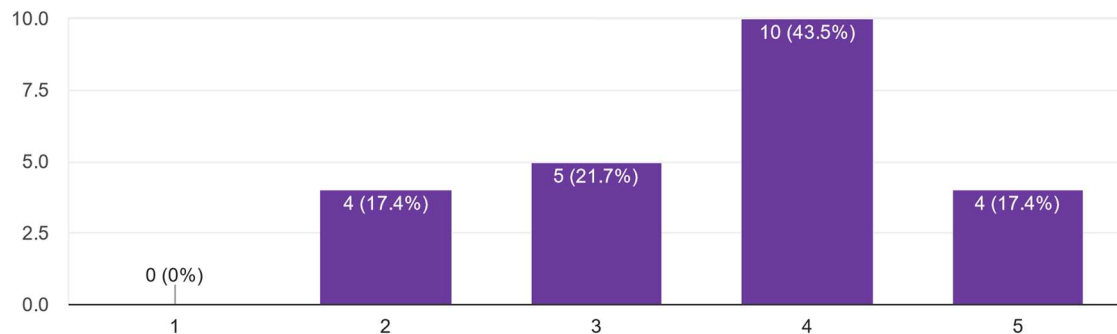## Can you rate your experience you had with the settings page?
23 responses

	1	2	3	4	5
	0 (0%)	5 (21.7%)	9 (39.1%)	5 (21.7%)	4 (17.4%)

This chart gives information about the experience people had with the setting page. So the lower bar represents users who strongly disagree and the highest bar represents users who strongly agree. In this chart, the majority of people are neutral with their decision and at second place users somewhat agree or disagree with the experience and thirdly users are voting they strongly agree that they had a good experience with the settings page.

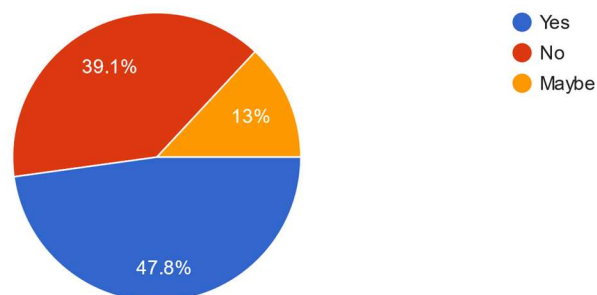## How Much are you satisfied trying out these recipes in the app?
23 responses

The above graph explains the success achieved by the users; X-axis represents the voting. The majority of the users voted 4 for the overall quality and the number of details that come with the application. While a similar distribution of votes goes to 2, 3, and 5 in order.
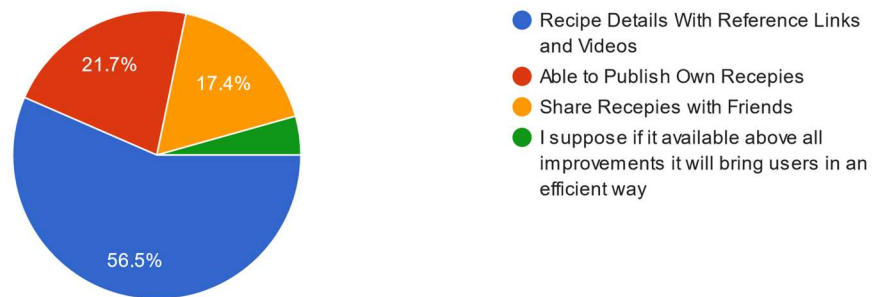
Are you able to add new recipes to the app?
23 responses

This pie chart is given information about adding a new recipe feature working in this app properly. The majority of the people gave the answer as 'yes' and it's 47.8%. Second, most of the people given answers as 'No' represent 39.1% percentage of size. A minimum number of people given an answer as 'May be' and it's given 13% percentage.

What kind of improvements would you like to see in this app
23 responses

● Recipe Details With Reference Links and Videos
● Able to Publish Own Recepies
● Share Recepies with Friends
● I suppose if it available above all improvements it will bring users in an efficient way

This pie chart shows given information about the improvements users are expecting to see in this app. The majority would like to see some dynamic content rather than the static view originally comes with the application. 21.7% expect to be able to publish their own recipes.