CMPT 363
Project 1- Part 1

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Part 1a: Heuristic Evaluation and Design Requirements Specification

#: 1	**Problem/Good:** Usability Problem
Name: No option to navigate to the location of the chosen dining option	
Relevant heuristic: Recognition rather than recall, Flexibility and efficiency of use	

Evidence of issue:
In the following images you can see although there is a certain location marked under each of the options, there is no option to click on it and know where exactly the dining option is.

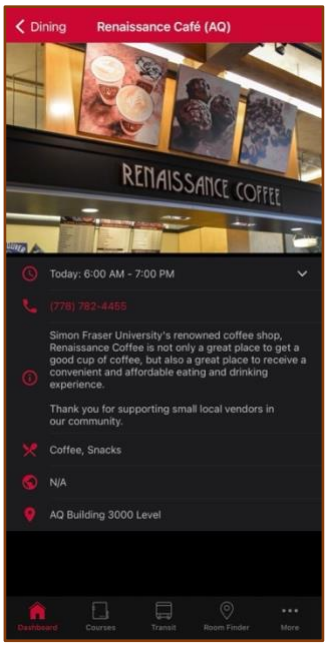


Image 1

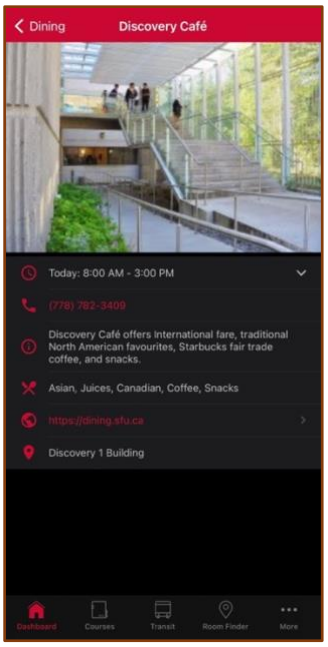


Image 2

Detailed explanation:
The absence of having the independence to navigate to the location of the dining option the user is choosing makes the user must remember where the location states and then look for the location under the room finder app. On the other hand, if there was an option to directly navigate to the location of the dining option by clicking on the location detail, it would save the user the hassle of remembering the location.

Severity or Benefit (minor, major, critical):
Level 2- Major
Justification:
This issue is major, when students use the app to look for dining options on the campus, they must remember the location and navigate through the campus to get their food. This makes the app less desirable as there are other better options available which can give the user more information and an easier interface to get their food.

Possible solution and/or Trade-offs:
A very simple solution to this issue is to add a direct link to the room finder feature of this app. The use should be able to click on the mentioned location and be directed the room finder where they can see the exact location of the place and get help in navigation.

#: 2	**Problem/Good:** Usability Problem
Name: Unable to search for specific campus options when on the dining options page	
Relevant heuristic: Match between system and the real world, Flexibility and efficiency of use	

Evidence of issue:
We can clearly see in the images that when searched for a specific location such as 'Burnaby' or 'Harbour Centre' the app does not provide any results which makes the user confused when they are looking for a dining option in a specific campus.

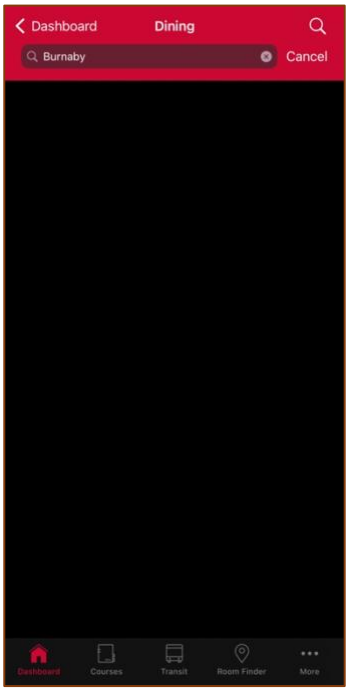


Image 1

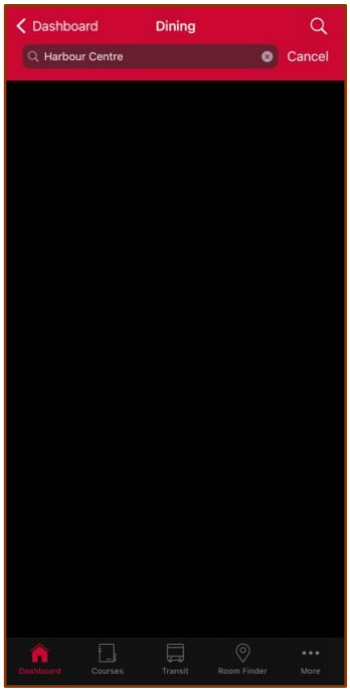


Image 2

Detailed explanation:
The inability to search for location specific dining options in the app gets the user to a halt where they either must go through all the list and find their relevant results or go to a different app where they can search more specifically.

Severity or Benefit (minor, major, critical):
Level 3- Major
Justification:
There is a good portion of the users who would like to search their dining options by their campus location, which results in this becoming a major usability problem as these users are unable to look for dining options by their specific search criteria.

Possible solution and/or Trade-offs:
Although the dining options are grouped by location it is still not possible for the user to search specific location in the app, if the developer uses some alternate tags for each of the listing which makes it easier for the user to search using their language, then it would solve this issue.

#: 3	**Problem/Good:** Good Usability
Name: Listing of all required information when any of the dining options are selected	
Relevant heuristic: Recognition rather than recall, Consistency and standards, Match between system and the real world	

Evidence of issue:
We can see in the below images that important information is very thoroughly listed when we click on any of the dining options.

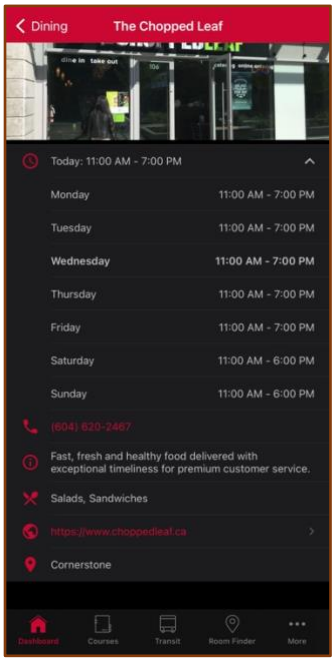


Image 1

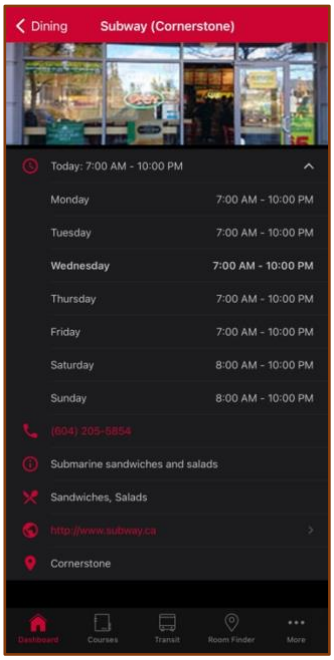


Image 2

Detailed explanation:
Specific information related to each of the dining option has been listed when a dining option is selected. The operating hours have been listed as per the day which makes it super convenient for students to plan and see when the place is open. We can also see the contact number of the place to inquire about anything along with a brief description of what they serve which is enough information for the user to decide.

Severity or Benefit (minor, major, critical):
Level 4- Critical
Justification:
This specific feature of the app makes it a very consistent app as it is in line with real world information alongside providing the user with all the required information at one place which makes it a very critical aspect of the app's usability.

Possible solution and/or Trade-offs:
Although this is a very good source of important information for the user, it can be even better by also listing the menu of the specific place as that would provide the user an opportunity to decide what they are going to order from the app itself.

#: 4	**Problem/Good:** Good Usability

Name: The current timing of the place is listed under the name of the place

Relevant heuristic: Visibility of system status, Flexibility and efficiency of use

Evidence of issue:

On the main dining page, today's timing is listed for each of the specific dining option.

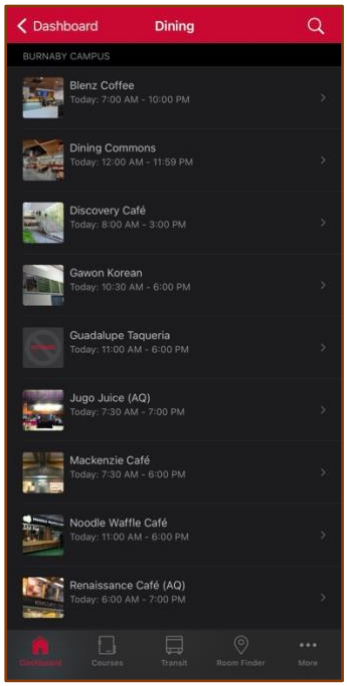


Image 1

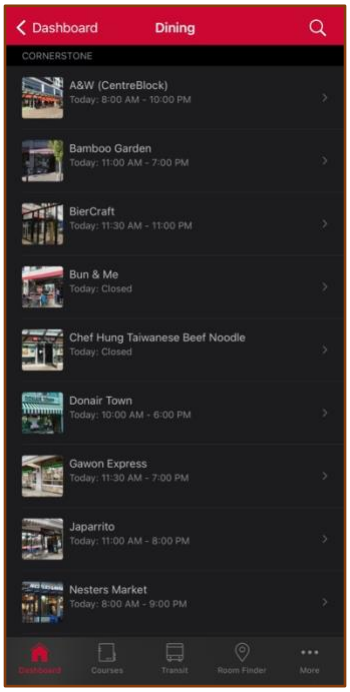


Image 2

Detailed explanation:

The current timing of each of the dining option is listed just under the name of the place on the main dining page itself. This feature makes it easier for users to determine whether they can visit the place at the time being planned, this saves them from clicking on each option and seeing whether it suits their schedule or not.

Severity or Benefit (minor, major, critical):

Level 2- Minor

Justification:

The presence of the current timing of the dining option is a minor benefit as it provides the user with enough information regarding the place's timing today, so they can decide without having to access each of the options. Although it is not a very important feature, it does save user time and provides a better experience to the user.

Possible solution and/or Trade-offs:

The presence of today's timing just beside the place's name is an important feature, although if the developer also lists the approximate cost of the food at the specific place it makes the user decision easier without having to click on each of the options.

Summary of Heuristic Evaluation

The dining option on the SFU Snap app was developed to help SFU Students on different campuses in making their food choices. Although this aspect of the app has been well developed with a lot of well-catered information for the students, there is still a lot of room for improvement in its interface and accessibility.

As discussed above, the dining option has great access to information at a single place for SFU students. Although most students would find it difficult to navigate through the option and make choices as the interface lacks a lot of information needed when the user is making a choice.

Comparing it to similar and much more accessible apps, the app needs major developments on its search interface as the search keywords required are not in line the user consistency and standards. If the user searches a specific cuisine or campus as a keyword, they either end up in poor or no results. This creates a problem as the user may not want to put in the time to go through all the options while making a dining choice.

Similarly, the lack of any pricing standards and menu in the app makes it difficult for college students to navigate through the choices as they are unable to look at what they can eat and how much is it going to cost them. This would result in them using a different platform to look at the menu and the pricing which makes this app unusable for most part of their situation.

This dining feature of the app is very content and informative, although issues such as the lack of the ability to navigate to the place, makes new students confused and they must search for the place on a different channel.

The lack of accessibility for most features makes it desirable for the user to search for dining options on different platform where they can navigate and access more information in less time. If certain features can be added to the dining option such as access to the menu and reviews along with navigation, this would make the use experience better as there would be less needed to consult different platforms to decide.

This evaluation of the dining feature on the SFU Snap app was done on October 14th, 2022, using the app's latest 2.14 version.

Context Identification

When: The Dining feature of the SFU Snap app will be used when SFU students need to plan their meals or dining activity when they are attending classes or are studying at any of the campuses.
Where: Since the dining feature is designed specifically for on campus dining, it will be used by students when they are on campus or when they are at home planning their day at the campus.
Who: The dining feature has specifically been designed for undergraduate and graduate students at Simon Fraser University.
What: This feature has been developed to help students navigate through various dining choices on the different campuses to help them decide regarding their eating plan.
How: Users can use the dining feature to look at various dining options near their campus, look at their operating hours and their location and choose what they are going to have for their meals.

User Identification

The dining feature on the SFU Snap app is designed for students that are taking courses at any of the campuses of the Simon Fraser University, it provides them choices in accordance with their campus and helps them choose their dining option.

The first persona are students at the Simon Fraser University. Students can plan on their meals and select where they would prefer to get their food via the dining section of the SFU Snap app.

The second persona are the staff at the Simon Fraser University. They can use the dining feature on the SFU Snap app to update and promote various events happening at different dining options such as the Halloween feast or the Diwali feast.

Functional Requirements

1. There should be an option on the main screen where users can sort their options by using location, cuisine, or other such criteria to provide them with better results that aligns with their requirements. (See figure 1 in appendix)
2. There should be a menu option along with the other options, clicking on which results in access to the menu items and their prices. (See figure 2 in appendix)

Non-functional Requirements

1. Users should be able to drop reviews for each of the dining option which would make it easier for other users to navigate through the dining choices.
2. Along with today's timing for each of the dining option, there should also be a pricing parameter on the main page which would make it easier for the user to choose the options.

Next Step

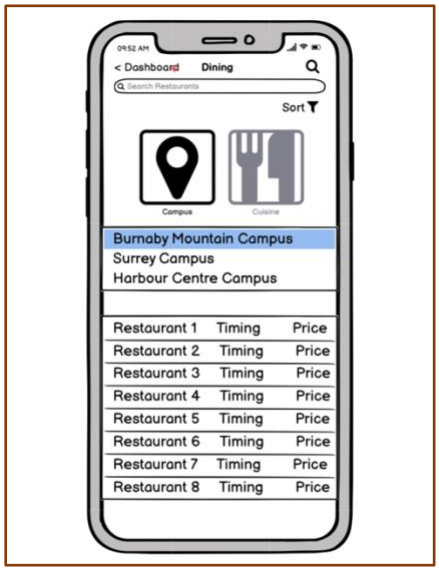
First, we specify the context of use, the dining feature of the SFU Snap app faces the students at SFU alongside the professors/ staff at SFU. It can be used to make choose a dining option on any of the campuses using the information available in the app with each of the option.

Next, we specify the requirements. Apart from providing enough information to cater to the user's choice of dining, the app needs to have navigation system which directs the room finder to the exact location of each of the dining options and there needs to be a main screen option where users can select to sort their options by the campus they are on or the cuisine they want.

Then, we create design solutions. We can provide a sort button by the search bar where the user can select to sort by the campus location, the cuisine or both and they can make better choices while staying in the app. This would then make the search option easier for the end-user and there would be no dead ends when campus locations are searched. We can also develop a menu option for each of the dining choices which will take us to their menu along with the current prices, this would result in users making better choices based on the choice of food and their budget.

Finally, we will evaluate our design by inviting SFU students and professors to do some surveys, and then we can revise our design based on these results.

Low Fidelity Prototypes



Low Fidelity Prototype 1

This protype introduces a very accessible version of the dining feature on the SFU Snap app where the user can narrow down their options by the campus and the cuisines, this can be further developed to incorporate more such sorting options. This would help the user to choose a restaurant without having to go through all the options and save the user's time.

For the Functioning Requirements: In this Low fidelity prototype, I have added the functionality for the user to be able to sort the dining options using the campus they are currently on or the cuisine they prefer to have. We can also add other sorting options to this prototype like pricing and reviews. This improvement helps the user narrow down their choices from the point they enter the dining feature of the app, the user will not have to go through all the dining choices to make a choice. When the user selects a dining choice, they can select the menu option which then redirects them to the menu page of the restaurant.

For the Non-Functioning Requirements: When the options are listed after the user has selected their sorting options, they were able to see the current timings of the dining option. Now alongside the current timing, they are also able to see the price range the restaurant offers along with the ratings, this gives the user the ability to choose their option based on their budget and the ratings the place has been given by other users. This let's user narrow their choices from the list of the dining options itself. There will also be an option on the top after the user opens a dining choice to drop a review where the user can drop a review for the restaurant.

Low Fidelity Prototype 2

This prototype is created to make the dining feature of the SFU Snap App an all-inclusive option for the user as it gives the user various parameters and a lot of details to be able to make a choice. Alongside, this also gives the user the ability to be able to look at what they can eat and how much is it going to cost them which makes it easier on the user to be able to make a choice.

For the Functional Requirements: After using the sort option to select their preferrable dining option based on their location or the cuisine they prefer, when the user clicks on a dining option, along with the other options such as the timings, location, contact number, there is also an option to view the menu which redirects the user to a different screen where the menu is listed along with the price of each of the items. This gives the user the ability to choose what they are going to eat from the app itself, this results in the user not having to consider different applications for all the information as they can find all the information needed to make their decision in the SFU Snap's dining feature itself.

For the Non-Functional Requirements: The user can access the reviews and the pricing of each of the menu item from the app itself. Providing the user enough information for their dining experience. When the user clicks on the drop a review option, they are also able to drop a review for the restaurant they have visited which will help other users make a choice. This user input can help the overall usability of the app a lot as it further aligns the app with real world information.

Appendix

Figure 1

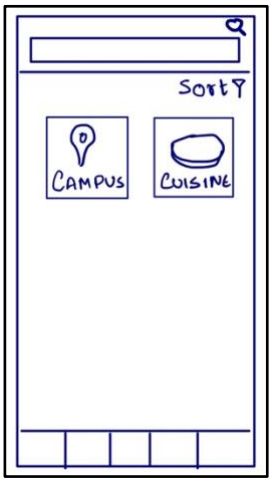


Figure 2