

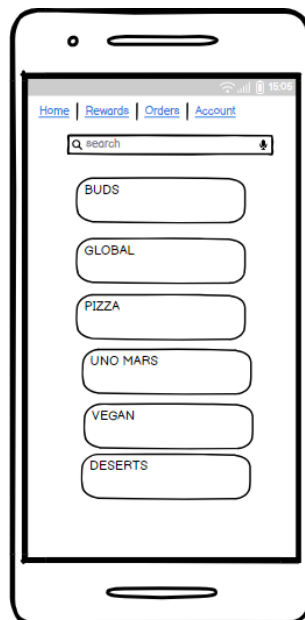
CS 732-Human Computer Interaction

Homework - 4

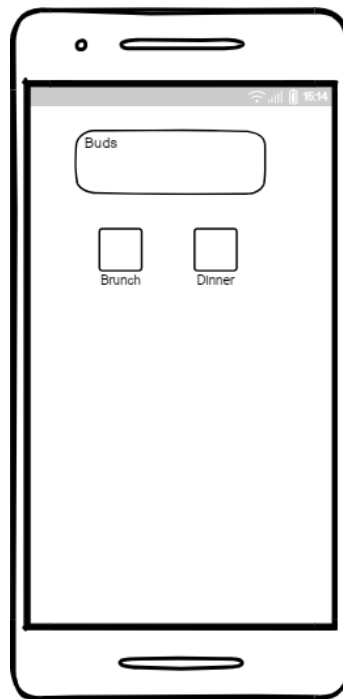
For this assignment, I have chosen the challenges students face when dining at Broderick Dining Commons on campus. As an observer, I have noticed a significant demand for the bud's section, which offers popular items like fried chicken, beef, and fries. Consequently, students often wait for a long time in this section compared to others, leading to inefficiencies and frustration during peak dining hours. To alleviate this issue, I propose the development of an application that helps for the food selection and pickup process for students. This would allow students to browse the menu offerings from various sections, including pizza, vegan options. By offering a convenient platform for food selection, students can make informed choices and reduce wait times by avoiding overcrowding in specific sections.

Upon selecting their desired items from the menu, students can place their orders through the application. The orders would then be processed by the dining staff, who will prepare the meals accordingly. Once the food is ready for pickup, students will receive a notification through the application, prompting them to collect their packed meals from a designated pickup area.

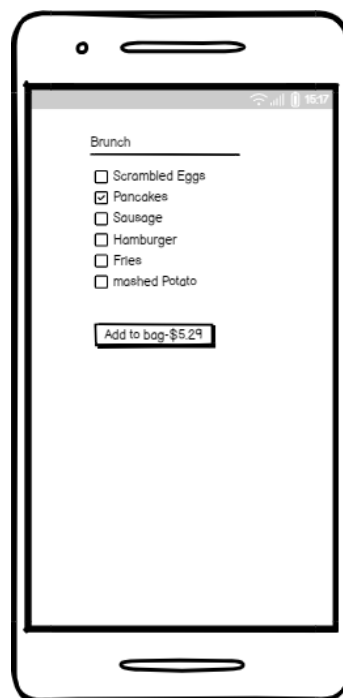
To visualize this proposed scenario, I have designed a wireframe that illustrates the user interface and key functionalities of the application. The wireframe showcases the menu layout, order placement process, and notifications system, providing a framework for the application's development.



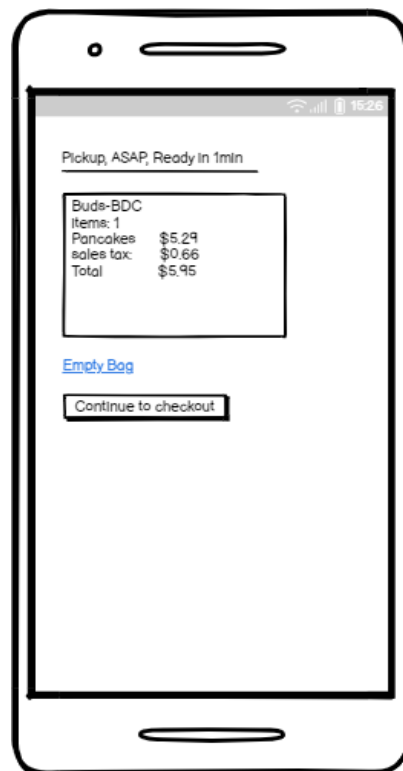
In the wireframe provided above, students can explore the diverse dining offerings available at Broderick Dining commons. With an array of choices available, students can select their preferred meals based on their individual preference and dietary requirements.



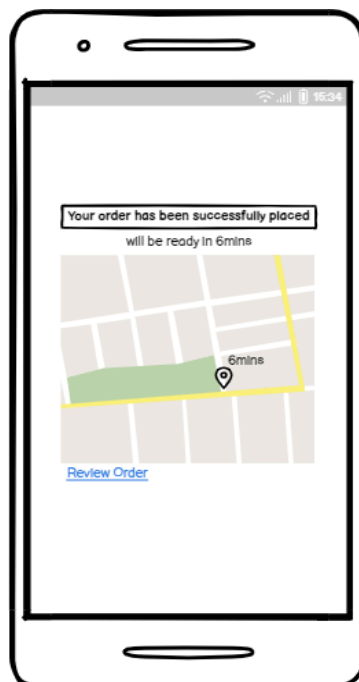
In the above wireframe, Once the choice is made from the available counters. Students can then select options provided under that counter.



After selecting a meal, students can choose from the available items within that category and add them to their cart.



In the above wireframe, the checkout page will appear once the user selects their desired food items and adds them to their cart.

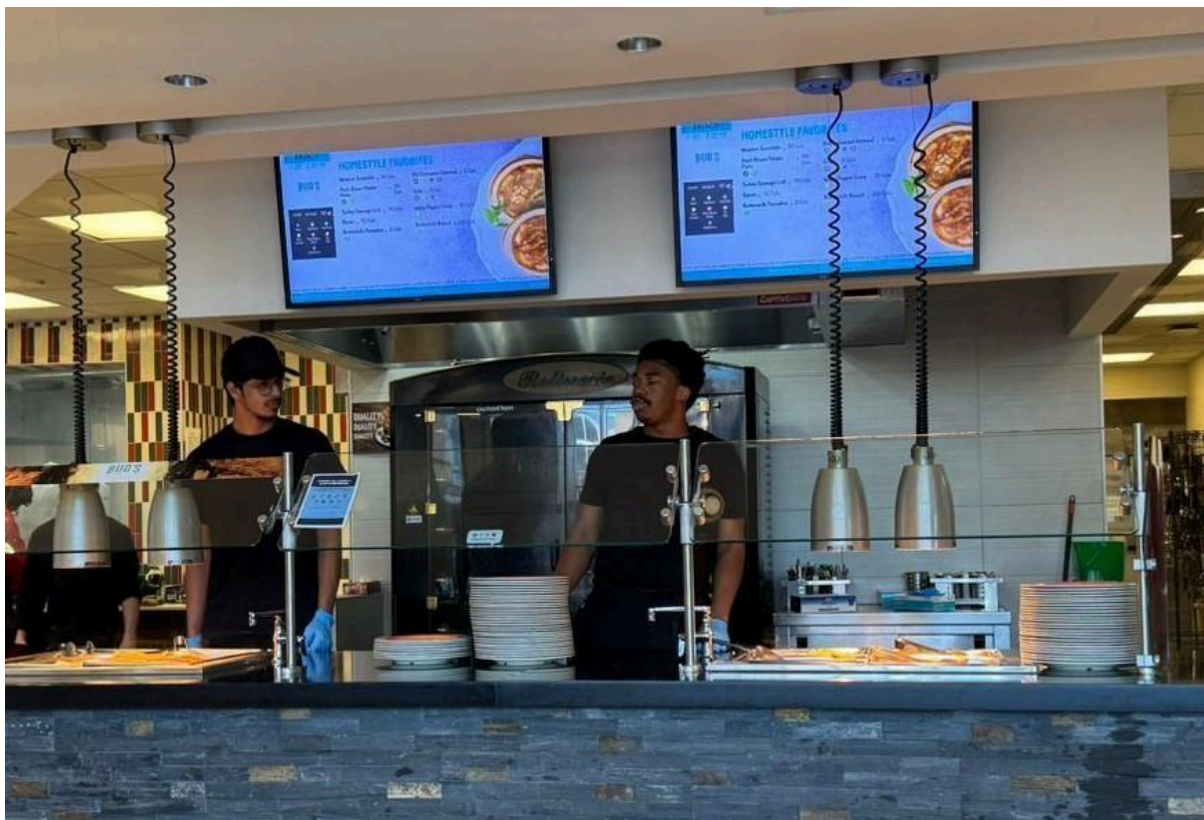


The user would be then directed to the next wireframe, where they could check the time for preparation and has access to review the order.

I had a conversation with one of the students working at BDC named soumith. He is a 23 year old Graduate student. He works as a part-time food server at BDC. He shared an insightful idea with me, prompting the development of the wireframe for an application. During the rush hour, he tirelessly served the incoming students despite the lengthy queues.

During our conversation, Soumith highlighted several key points:

1. He proposed the idea of an online application that allows students to view the daily menu and place orders conveniently via mobile devices or we browsers or laptops.
2. Orders placed through the application are received by the BDC.
3. Upon completion, students receive notification to pick up their orders.



Soumith


age: Actual age or range

residence: State, city, or even neighborhood

education: Highest level of education or training

occupation: Job or primary way of making money

marital status: Married, single, with kids, without



A quote from to help define their voice and personality.

A quick summary of behaviors and practices like how he/she spends their day.

Comfort With Technology

INTERNET

SOFTWARE

MOBILE APPS

SOCIAL NETWORK

Criteria For Success:

What's needed in order to make him or her feel successful.

Needs

- These should be required
- This might be Spanish localized content
- Support from higher ups

Values


- Qualities that he or she values
- High level planning is an example

Wants

- Wants are something that is not required but delights
- This might be the holy grail feature
- It delights him or her with its simplicity or completeness

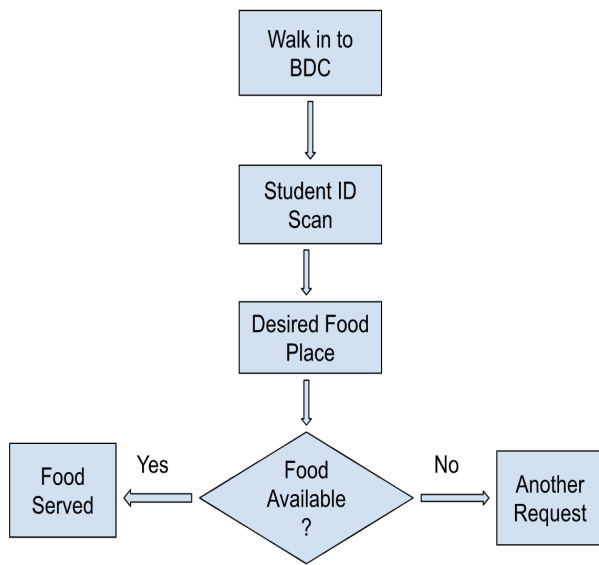
Fears

- Fears are the things that keep him or her up at night
- This might be something like failure
- But might also have to do with real fear



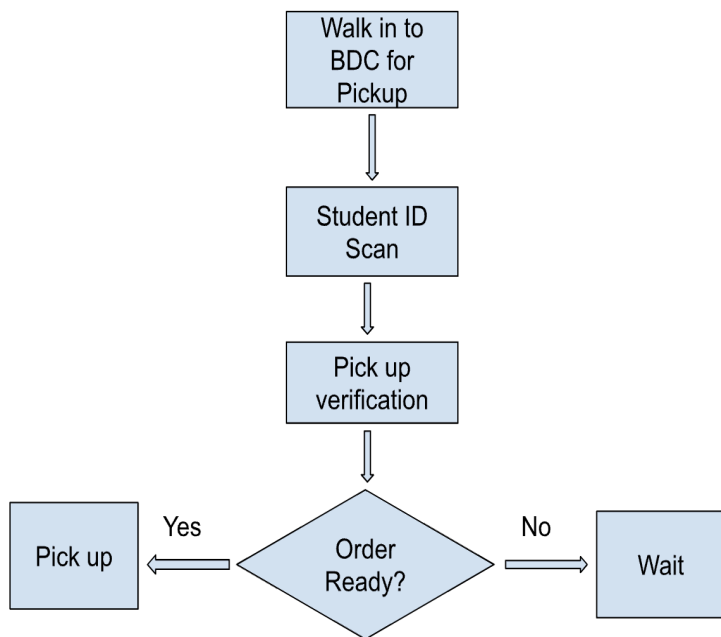
HTA-Existing System:

Below diagram is the Existing system. Currently Students should go to the dining hall entrance and swipe their cards who have meal swipe or flex points or payment method for entering the BDC to enter the dining hall and approach the respective food counters and view the menu offerings displayed at each counter by verbally communicating food preferences and choices to the server and await food preparation and receive the ordered items and will be proceed to find a place to dine within the dining hall.



HTA-Proposed System:

As per the proposed system, Launch the dining application on the mobile devices or access the website on a laptop and browse through the menu offerings from different scenarios (e.g., buds section, pizza, vegan) Select desired items from the menu and customize options(e.g., toppings and sides) and add selected items to the cart for checkout. Confirm the order and proceed to payment. Then, choose a preferred payment method and enter payment details securely within the application and the student can place an order.



Use Case Diagram:

Use case diagram below illustrates interaction between users and the proposed dining application at BDC. It highlights the key functionalities offered by the system and how different actors interact with them.

