User Interface Design
Project Step 2

Prithvi Vasanth Kumar (02050378)
Sumukh Mamatha Shivashankar (02049882)
Ajay Kommineni (02131051)

User Analysis

Persona 1: Bapi (Customer)
Age: 27
Gender: Male
Education: Undergraduate (Bachelors in Psychology)
Physical Limitations: None
Computer Experience : Moderate
Motivation: Would like to place an order only during busy days of school or sometimes weekend parties.
Domain Experience: Infrequent Orders
Software Usage: On a laptop or phone
Factors Distracting Them: Busy with school assignments and projects that reduces the frequency of visit.
Relationship : Not Known
Communication Patterns : Placing orders on an application or the website.

Observations:
In Bapi's case it was observed that placing an order would be a long process since he kept switching between his school tabs and the restaurant's website. This may be due to the fact that the User Interface of the restaurant's website wasn't interactive enough and made the user feel like it was monotonous. Hence, a straightforward quick User Interface would have to be developed to seek the attention of users.

Persona 2: Tarun (Parent)
Age: 45
Gender : Male
Education: Masters Degree
Physical Limitations: None
Computer Experience : Proficient
Motivation: Busy with work and family leading to a few orders placed
Domain Experience: Not a frequent user (prefers food prepared at home)
Software Usage: On a laptop or phone
Factors Distracting Them: Commitment to family and work.
Relationship : Married
Communication Patterns : Placing orders on the mobile application, websites and flyers.

Observations : In the case of Tarun it was observed that due to family commitments(such as taking care of an infant) his wife had helped him place orders. Also, a few orders were wrongly placed without his knowledge which led to an unpleasant experience. This can be avoided by sending notifications saying that an order is on hold or yet to be placed therefore reminding him of the order. He also calls the restaurant to make reservations on specific days to verify that a table has been booked. This scenario can be avoided by sending reservation confirmation emails or texts to his phone that guarantees him of the booked table.

Persona 3: Prarthana (Teenager)
Age: 18
Gender : Female
Education: Started pursuing a Bachelor’s degree
Physical Limitations: None
Computer Experience : Proficient
Motivation: Fresher Pressure
Domain Experience: High frequency of orders
Software Usage: On a laptop or phone
Factors Distracting Them: Initial pressure faced by a fresher thereby leading to overeating.
Relationship : Single
Communication Patterns : Placing orders on the mobile application, websites.

Observations: Prarthana’s case seems to be an example of peer pressure faced in her fresher year. She often reaches out to her phone frequently placing orders but a couple of times transactions were not going through therefore increasing frustration on the user. In order to keep the user’s attention focused the User Interface could be made giving a calm and serene environment that eases the frustration. Also, a bug existed on one order where the menu prices had displayed zero dollars thereby leading to confusion. This can be avoided by sending out mails to subscribers letting them know there is a server maintenance currently taking place.

Hierarchical Task Analysis

1. User's Perspective of the restaurant's information on website
   Goal : Gathering information about the restaurant and reviews.
   - 1.1. Search the restaurant online.
   - 1.2. Viewing description and prices on menu.
   - 1.3. View customer ratings and reviews.
   - 1.4. Checking the ambience of the restaurant by looking at photos.
   - 1.5. Discounts or offers offered on a certain day.
   - 1.6. Finding the contact details.

   Plans:
   Plan 0: Do 1.1-1.2-1.3-1.4-1.5-1.6 in order which is a comprehensive plan.
   Plan 1: Do 1.1-1.2-1.5-1.6-1.5-1.3 and then 1.6 if the user finds it attractive.
   Plan 2: Do 1.1-1.2-1.5-1.3-1.4 and then 1.6 if the user finds it attractive.

2. Making online Reservations
   Goal: Booking a table on a certain date and time.
   - 2.1. Navigate to Reservations :
     - 2.1.1. Go to website
     - 2.1.2. Click on Reservations
   - 2.2. Choosing Seating Preferences:
     - 2.2.1. Indoor or outdoor
   - 2.3 Selecting Total Guests:
     - 2.3.1 Entering number of guests
   - 2.4 Choosing specific date and time
     - 2.4.1 Choosing date and time for booking.
   - 2.5 Provide Contact Info
     - 2.5.1 Enter Name
     - 2.5.2 Enter Email ID
     - 2.5.3 Enter Contact Number

2.6 Reservation Confirmation

2.6.1 Confirm Confirmation

2.7 Booking Confirmation Email/Mobile Number

2.7.1 Go to the email and receive confirmation of booking.

Plan 0: 2.1.1-2.1.2-2.2.1-2.3.1-2.4.1-2.5.1-2.5.2-2.5.3-2.6.1-2.7.1 in order.
Plan 1: 2.1.1-2.1.2-2.2.1-2.3.1-2.4.1-2.6.1-2.7.1 in order while there is no need to provide contact info since the user might have been already logged in.
Plan 2: 2.2.1-2.1.2-2.3.1-2.4.1-2.2.1-2.5.1-2.5.2-2.5.3-2.6.1-2.7.1 when the user does not have a preference.

3. Food Orders made Online

Goal:Online Orders for Pickup and Delivery

3.1 Going through the food menu and checking rates.

3.2 Select desired items.

3.3 Extra Toppings (Optional)

3.4 Add food to cart

3.5 Add User Address

3.6 Reviewal of order placed

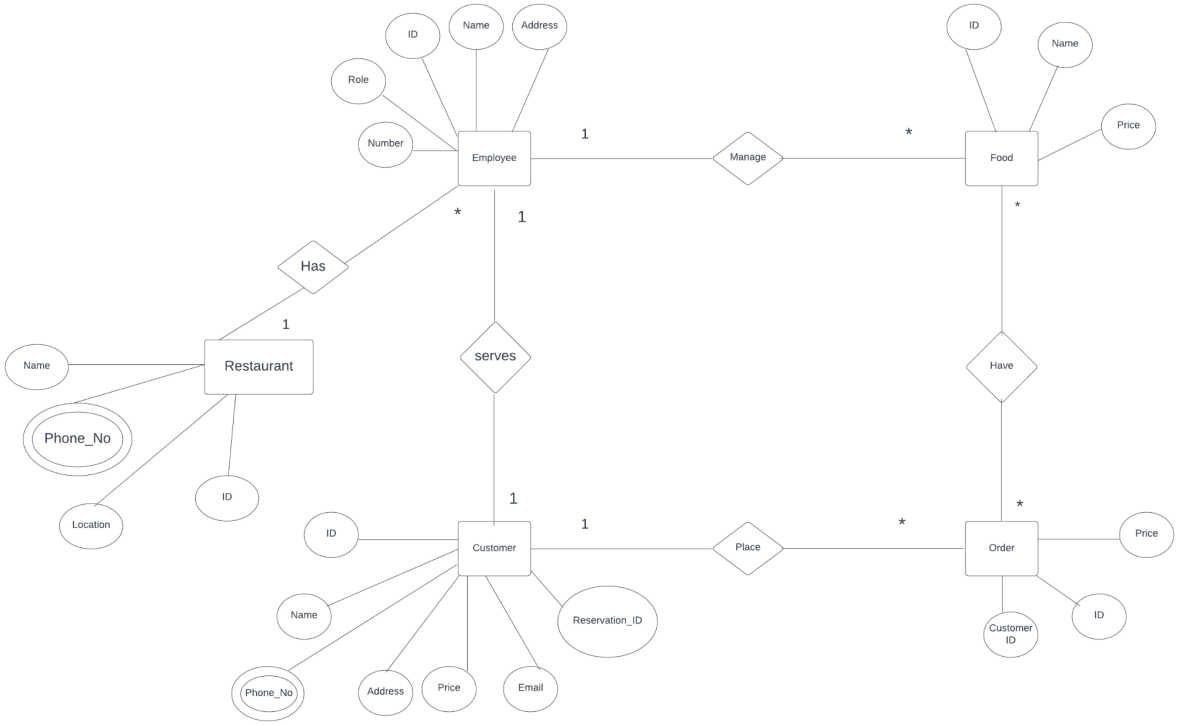
3.7 Make Payment

3.8 Order Confirmation via Email and Phone

Plan 0: 3.1-3.2-3.3-3.4-3.5-3.6-3.7-3.8 in order
Plan 1: 3.1-3.2-3.4-3.6-3.7-3.5-3.8 if the user plans on skipping any extra toppings that are optional.
Plan 2: 3.1-3.2-3.3-3.4-3.7-3.6-3.8 if the user has already logged in Details are already present.

Domain Analysis

The Entity Relationship Diagram with Multiplicities is as follows:



Entities - Employee, Food, Restaurant(Manager), Customer, Order
Attributes -

1) Employee
    a) Phone Number
    b) Role
    c) ID
    d) Name
    e) Address

2) Restaurant
    a) Name
    b) Phone Number(Multiple)
    c) Location

    d) ID
3) Customer
    a) ID
    b) Name
    c) Phone Number(Multiple)
    d) Address
    e) Price
    f) Email
    g) Reservation ID
4) Food
    a) ID
    b) Name
    c) Price
5) Order
    a) Price
    b) ID
    c) Customer ID

Relationships among Entities-

1. One Restaurant has multiple employees.
2. One Employee serves one customer.
3. One Employee manages multiple food items
4. Multiple orders can have multiple food items.
5. One Customer can place one order.