Team Project Assignment #2 – Task Analysis and basic GUI

Title: Nerd Orders [NO]

Methods: Soft System Methodology [SSM]

Stage 1: Problem situation

Enhancing the experience of Dining in "Nerd Bistro" by the use Touch tablets, to place orders, use services and other features the restaurant has to offer.

Stage 2: Rich picture

For the purpose of improving and modernizing Nerd Bistro restaurant, there has been a bulk order of touch tablets, so that every diner can use their tablets to access and make use of the restaurants products and services. This however could be an issue, when dealing with older adults, as it might overwhelm them, and in turn, might not have a good experience in the diner.

Other people affected by this are the employees, who might spend more time in helping the older adults use their tablets, rather than serving orders.

The designers and the developers of the application has to come up with an interface that is self explanatory, so that there is less time invested in tech help. The interface must be older adult friendly, so that every demography enjoys using the application, instead of being overwhelmed.

Stage 3: Root definitions

Clients: Restaurant customers (older adults in mind), in-house waiters, in-house technical support, chefs and cooks.

Actors: Chefs, Restaurant customers, waiters.

Transformations: Customers menu orders and special requests transformed into sale of those menu items, which follows the delivery of that item, resulting in profit for the restaurant.

Weltanschauung: Improving the rate of orders and deliveries can optimize profits, thus leading to a enjoyable experience for the restaurant customers.

Owner: Restaurant management, restaurant Chefs

Environment: Restaurant policies, US Food and Drug Administration regulations

Stage 4: Conceptual models

1. Arrange a group of people, preferably older adults, to ask their opinions, interests and their behavior.
2. Use the group for testing the proposed UI with storyboards and sketches.
3. Interview other clients and actors involved, to get a full list of requirements and influences.
4. Calculate how this experience is better than the traditional experience, and whether this will generate profit.
5. Try to iterate, so that the rate of using the interface of the application is minimized and made more efficient.
6. Consult the proposal with the owners to get an approval.
7. Make sure it follows all the policies and regulations that are involved.

Stage 5: Comparing stage 4 and stage 2

Success of this application is of the utmost importance, as the tablets are already ordered.

Stage 6: Changes

Along with performing all conceptual model activities, there is also a very important need of following software engineering models, as the tablets are already ordered and there is no room for failure.

Stage 7: Actions

Consultations with ethnography experts and more of real-world testing.

Tasks

1. Accessing tables

    Goal: To access the table, that the customer is currently occupying.

    Preconditions: The initial screen of the tablet must show all the tables arranged which corresponds to the actual layout of the tables.

    Exceptions: The customer might select the wrong table and order for someone else.

    Description: This is the most important aspect of the application, as it is very important for the customer to choose the right table. The interface should avoid placing the table icon close to each other and there must be a feedback after this step. It is used only once for a customer per table.

2. Browsing Menu

    Goal: To browse through all the sections of the menu, including all the deals and offers the restaurant has to offer.

    Preconditions: The menu in the application must follow the real world menu metaphor.

    Exceptions: The user might want to ask additional questions along with the menu, which might be absent.

Description: The purpose is to go through all the items in the menu. The frequency of this aspect is very high as the user might go over the menu over and over, through the entire period of their meal.

3. Calling waiter

Goal: To call the waiter, when there occurs a situation, where the user might need additional assistance.

Preconditions: The user must be able to call the waiter at any given time; hence the service must be available at every page of the interface.

Exceptions: The user might be unaware of the feature, thus might never use the service.

Description: Since this part involves external actors, the user might need assistance from, it must be available at any given instance. The user must be made aware of this service in a obvious way, so that they can use the service. The frequency is might be high when considering older adults.

4. Placing Order

Goal: To place the menu order for the purpose of consuming it.

Preconditions: The user must be able to order, whenever the item is on the screen.

Subtasks: Filling in the quantity and option to cancel the order.

Exceptions: The user might place a wrong order, there has to be a way for reverting this situation.

Description: This is the main intention of the application, hence must be very easy to use. The user can click on any item for the purpose of ordering it. There must be a confirmation along with cancelling the placed order.

5. Paying Bill

Goal: To pay for the items ordered.

Preconditions: The user must be made aware that to pay he has to request for a check and that he can pay using the application when using a card, else he can call the waiter for paying in cash.

Subtasks: To explicitly ask for the check, and selecting the mode of payment.

Exceptions: The user might never ask for a check, thus being in a inactive state.

Description: The user must be aware that he can pay at any given time after placing an order. This is tricky, as the user must be compelled to remember paying the bill using the system, otherwise they might call the waiter.

6. Simple survey

Goal: The user might spend time getting to know the tablet and the application, since this is a new scheme, the system could prompt the user for a quick survey of their experience.

Preconditions: Since the main goal is to enhance the dining experience, the user must not be able to fill the survey against their wishes.

Exceptions: The user might never access this service or might enter wrong information.

Description: Since this is new experience, the users might have very good suggestions that might have not been considered. To make the application a success, there might be a need to revise the application to upgrade it to these changes.