**ONLINE ACTIVITY 8 & 9: Applying the User-centered System Design Process**

**MA SOLUTIONS: ANDOY, ANDAL, & MAYO**

**CHAPTER 1: Introduction**

**Background of the study**

As recent food trends are observed, there are new changes in how people view food. This led to people adopting a more financial approach to purchasing food as inflation and consciousness grew more prevalent than following trends. However, while existing food application apps do exist covering these markets, the lack of a more user-focused approach in dealing with food prices and information access can be inadequate, especially with the volume. This results in irregularities, and sometimes monopolies due to current standards.

MA Solutions devised the “Crave Compass”. An application that addresses these problems by using existing resources that can be obtained by existing applications. This application aims to provide a means to people with self-consciousness about budgeting and type of meals as well as planning to further increase the chance of money saved. By providing a solution that is in line with current trends, both businesses and customers can benefit from the increased transactions and activity that can provide trendy stuff even with the constraints of human consciousness.

**Statement of the Problem**

**-Lack of Relevant information on viable food places:**

This results in unfair business practices as known establishments have a better upper hand and can dictate prices and availability based on demands.

**-Lack of updated information to ascertain human consciousness:**

This results in people doubting available information as the information present isn’t reliable or outdated which cannot be utilized by people.

**-Lack of accurate information relevant to food prices:**

The lack of accurate information as to food prices results in uncertainty with the food plans or purchase which prevents users from fully engaging with various food establishments which a lot happens indirectly.

**Assumption of the Study**.

With the shift to a more economically conscious customer base, the idea of simply just going to a place a purchasing something isn’t much of an option anymore. This now requires researching, planning, and ascertaining that a place is good or economical. What CraveCompass intends to do is provide both establishments and Customers a way to improve that interaction by providing information to the customers and providing establishments a playing field in attracting customers. The study assumes that by filling in a missing part of the food economy which is the information space, customers will be more likely to engage and explore more, rather than doing the usual. This will end up being beneficial to both sides as the results would show improvements in the food economy space.

**Significance of the Study**

This study aims to address problems with current food economies mainly solving how to cater to money-conscious people which is more noticeable with the recent shifts in food trends to be more economically focused. By doing so, the study aims to improve accessibility to information, increase establishment traffic, and also provide customers with more choices with accurate information.

**Money-Conscious People:**

Money-conscious people can further explore while worrying less about the current food economy as prices are accurately displayed for various establishments providing a space where one can decide on the viability of going to various places.

**Tourists:**

Tourists wanting to visit the location would be provided with information detailing various information that would maximize their experiences during their stay in the city.

**Residents:**

Locals can benefit from being informed of the available businesses, prices, and overall general location which would provide various choices as to where to go and consume.

**Chapter 2: Research Design**

This chapter highlights the implementation of User-Centered System Design (UCSD) processed in providing requirements to the “CraveCompass” application. It is crucial to the implementation to address the possible user needs. Provided in these sections are various stages with the implementation of UCSD in understanding various requirements such as user requirements, interfaces, and evaluation of the system based on preliminary discussions.

1. **Task Analysis**

During the deliberation process in creating this application, considerations to how interactions would be conducted while using “CraveCompass”. With various interviews and tests conducted, the developers found various key insights that need to be addressed to satisfy user needs.

Hierarchical Task Analysis (HTA) for “Clique”

**Overall Goal:** Provide an application that users can use to gain information with regards to various food establishments which could be used in planning on where to eat or purchase food.

Top-Level Tasks:

* **Find Establishment location:**
* **Look-up Food Prices:**
* **Save Meal Plans:**

1. **Requirements Gathering**

To ensure that application specifications align with the needs of potential users, the team implemented measures to get accurate and reliable information:

1. **Survey/Questionnaire:** Conducting surveys with various respondents allows the team to gather quantitative data on various requirements and preferences that end up improving the overall user experience.
2. **Interviews:** First-hand experience of user experience allows us to directly create a system that aligns with the user’s preferences and also checks the requirements set. This gives a more detailed account of existing experiences that can be used to improve the overall system.

The system features contains restrictions and functionalities based on requirements which are divided into multiple categories:

1. **User Requirements**
2. Accurate Location: The application will display accurate locations of various food establishments relative to the user’s location.
3. Updated prices: Accurate and up-to-date food prices will be displayed in this application to ensure the reliability and accuracy of data input. Furthermore, this builds trusts.
4. **Functional Requirements:**
5. Location Finder: Provides various locations to running establishments which the user can navigate and interact with.
6. Meal-Plan creator: Provides a space where the user can save their preferred meal.
7. **Data Requirements:** The current version only requires basic data handling which doesn’t require protection. However, user location and establishment locations are kept secure based on the importance of data.
8. **Environmental Requirements:** The application is only applicable to IOS devices currently which limits overall functionality and reach, however, its designed to be lightweight it only uses minimum resources.
9. **Usability Requirements:** Modeled on existing food applications, the application is designed to be user-friendly with minimum instructions and an easy-to-navigate UI allows for a little introduction.
10. **Storyboarding and Prototyping**

The application’s storyboard or functionality flow of the GUI will be displayed here.

**Logo Page:** This shows up a clear canvas with the logo and a short description presented on the display. A get started button is shown which requires users to press to get started, this is to indicate that the user is available to use the program.

**Menu Page:** This shows a search bar for general searches of specific food items, popular establishments, a food map that redirects to the food map page, and some items that are categorized based on various factors.

**Map page:** This shows an interactive map with the locations of various establishments relative to the user locations. Below indicated, are various

Establishments nearby to the User can be selected to view prices and add to meal plans.

**Food page:** This shows a page where the user can view food items available to the establishment, which can be added to meal plans. If an item is clicked, a pop-up will display, which can be added to a meal plan if the user wants.

**Meal Planner Page:** This shows the meals added which can be saved into a customized meal plan with names assigned to it which can be viewed in another page.  
**Liked Cravings Page:** This shows the page where the user saves their meal plans which can be used as a reference when they visit the establishment to purchase something.

**Accounts Page:** This views the local account of the user which in the prototype is stored locally. This page contains information related to the user’s recent activities.

1. **Evaluation of the prototype**

Use heuristic evaluation with the format given below. This is the criteria of how

the design will be graded.

Evaluation Criteria (Based on the 10 heuristics of design evaluation)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Area of Evaluation** | **5** | **4** | **3** | **2** | **1** |
| 1. **Visibility of System Status**  * - The system design provides appropriate feedback like message prompts in response to user actions. * The message prompts are clear, visible and understandable. |  | / |  |  |  |
|  | / |  |  |  |
| 1. **Match between the system and the real world**   - Used words, phrases and concepts according to users’ language rather than system oriented words and computer jargons. | / |  |  |  |  |
| 1. **User control and freedom**   - The system design provides ways of allowing users to easily “get in” and “get out” if they find themselves in unfamiliar parts of the system. | / |  |  |  |  |
| 1. **Consistency and Standards**  * - The colors, text, labels, buttons and other elements in the design are uniform from start to finish**.**   - Text and icons are not too small or too big.  **-** Menus and other features of the system are arranged and positioned in a consistent way. (For ex. If your website has navigation buttons on the top under the page title on one page, the users will automatically look there for the same features on other pages. | / |  |  |  |  |
|  | / |  |  |  |
|  | / |  |  |  |
| 1. **Error Prevention**   - The system design provides an automatic detection of errors and preventing them to occur in the first place.  - Idiot proofing mechanisms are applied |  | / |  |  |  |
|  | / |  |  |  |
| **F. Help users recognize, diagnose and recover from errors**  **-** Error messages and the terms used are recognizable, familiar and understandable for the users. |  | / |  |  |  |
| **G. Recognition rather than recall**  **-** Objects, icons, actions and options are visible for the user.  - Objects are labeled well with text and icons that can immediately be spotted by the user and matched with what they want to do. | / |  |  |  |  |
| **H. Flexibility and efficiency of use**  - The system design provides easy to navigate menus.  - the system does not make wasteful time of system resources. | / |  |  |  |  |
| 1. **Aesthetic and minimalist design**   **-**Graphics and animations used are not difficult to look at and does not clutter (mess) up the screen.  - Information provided is relevant and needed for the system design. |  | / |  |  |  |
| 1. **Help and Documentation**   **-**the system design provides information that can be easily searched and provides help in a set of concrete steps that can easily be followed. |  |  | / |  |  |

**Chapter 3. Conclusion and Recommendations**

This study concludes that based on the various data and relevant information presented throughout the process the provided application can meet the demands of an existing market based on functionalities, and accessibility of users. It can provide the solutions for a problem that has existed when food applications and trends became mainstream which stresses the current food market. As the market shifts to a more economical solution, providing an application that could meet their needs allows for more benefits for both parties which improves interactions, and drives up the overall food economy.

The application is designed based on existing food applications. There would be cases where confusion may occur. Recommendations would include adopting some basic features such as pick-up and gradually integrating key features in the long run for much better interaction and shifting to a single application. Another is to improve user accessibility which is currently limited in the current application. Also, a rating and feedback system can be implemented to provide users with much more detailed information aside from the location and price that the application currently has, improving user experience when it comes to the food market.