**Project Description:**

In the realm of household organization, efficient grocery shopping and meal planning are essential for a smooth-running household. ListMate is designed to address these needs by providing a comprehensive shopping companion app. The goal is to facilitate seamless shopping experiences, from recipe discovery to collaborative list management, enhancing daily routines and overall household harmony.

**Requirements Summary:**

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**Table 1. System Requirements:**

To accommodate lower-end Android devices, the application will require a minimum of 1 core, 2 GB of RAM, and Android version 4.4 (KitKat) as the operating system. The app is not resource-intensive, so our team has decided on these modest specifications.

**Prototype Description:**

The prototype for ListMate, developed using Uizard, focuses on creating an intuitive and user-friendly interface that demonstrates key functionalities. This prototype emphasizes ease of navigation, collaborative features, and personalized recommendations to streamline grocery shopping and meal planning.

**R.U.S.T. Uizard Link:**

<https://app.uizard.io/prototypes/QOAMOYoO8zcBv6zqXyVx>

**User Scenario:**

Denise and Jazmine have been struggling with organizing their household chores and grocery shopping, leading to frequent inefficiencies and frustration. They often forget items while shopping and find it difficult to coordinate with each other about what needs to be bought. This disorganization is affecting their overall household management and causing unnecessary stress.

One day, Jazmine comes across an app named ListMate, recommended by one of her old friends who has been using it successfully to manage their household shopping. Intrigued, Jazmine installs the app and starts to explore its features. She notices that the app offers comprehensive shopping lists, recipe ideas, and collaborative planning, which could solve their current problems.

Excited about the potential, Jazmine goes to Denise and recommends ListMate to her. Together, they start using the app to plan their grocery shopping more effectively. They create shared shopping lists, explore new recipes, and efficiently navigate their shopping trips with the help of ListMate. Over time, they notice a significant improvement in their household management and a reduction in the stress related to grocery shopping.

A screenshot of a phone

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**Main Menu**

The ListMate "My Lists" screen displays existing lists, such as "Mango Float," and provides options to create a new list or delete from the list. User can choose from list recommendations like "The other store," "Your next party," and "At your workplace." The interface is clean and organized, featuring easy-to-use buttons for adding new lists and viewing recommended ones.

**Setup**

The ListMate list setup screen guides users to create their first shopping list with a clear prompt asking, "What should your list be called?" and a text input field with example suggestions like "e.g. at home or weekly shopping." The screen features a clean, dark background with the ListMate logo and straightforward instructions for a user-friendly experience.

**Setup**

Below the logo and app name, there are four buttons for users to choose from, each allowing a different method of account creation or login

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**List with Drawer**

The Listmate app interface displays a "Mango Float" list with items such as Mango, Cream, Condensed Milk, and Graham Crackers, each represented by an icon in a red tile. The bottom navigation menu includes options for Shopping, Inspiration, and Profile, with a visible keyboard and a search bar at the top to add new items.

**List with Drawer**

The Listmate app interface shown displays a "Mango Float" list, prompting the user to enter their first articles by typing them into the search bar. The bottom navigation menu includes options for Shopping, Inspiration, and Profile, with a "+" button for adding new items.

**Inspiration Tab**

ListMate now includes offline access, for adding items and searching recipes, and a barcode scanner for easy item entry and nutritional info.

A screen shot of a login screen

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**Account Tab**

Use the Account Info tab to manage and configure account details.

**Prototype Flow:**

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**Figure 2. Setup Prototype.**

Figure 2 Prioritizes the initial setup of the user, below the logo and app name, there are four buttons for users to choose from, each allowing a different method of account creation o provides options to create a new list or choose from list recommendations like "The other store," "Your next party," and "At your workplace." The interface is clean and organized, featuring easy-to-use buttons for adding new lists and viewing recommended ones.r login. After, setup screen guides users to create their first shopping list with a clear prompt asking, "What should your list be called?" and a text input field with example suggestions like "e.g. at home or weekly shopping."

A screenshot of a cell phone

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**Figure 3. Making the List:**

Figure 3 Provides options to create a new list or choose from list recommendations like "The other store," "Your next party," and "At your workplace." The interface is clean and organized, featuring easy-to-use buttons for adding new lists and viewing recommended ones.

**Rationale:**

The team has opted to use Uizard as the method of creating the ListMate prototype since it is a free interactive program/site that can be accessed by both members of the team to edit the prototype. It also lets the team showcase the final design of the application when launched. Furthermore, Uizard is very convenient when it comes to presenting and sharing prototypes with users who are not physically present and can easily be edited when feedback has been received. However, Uizard does have some drawbacks; it requires internet access to save edits, preventing users from exiting the program without a connection. Additionally, using Uizard on larger screens may present challenges with smaller buttons being difficult to press.

**Changes to the Requirements:**

No specific changes were made to the system requirements; however, several changes were made in the usability criteria for the prototype. These criteria were revised to answer the question, "How easy can a user use this prototype?" The new revised basis will take inspiration from the 10 Usability Heuristics, including Minimalist Design, Recognition, Flexibility, Freedom, and Consistency. Furthermore, the prototype discarded the implementation of online features due to a lack of time, thus criteria for online features were scrapped. The goal is now to keep the prototype as easy to understand as possible to avoid confusing the user when they use a complete version of the prototype.

**Initial Evaluation Plan:**

Due to the ongoing quarantine and online classes, the team is unable to conduct this evaluation through normal means. Instead, alternatives were used, such as online social media platforms like Microsoft Teams and Discord. This ensures that the team will still be able to see a live feed of what is currently happening in the prototype.

The evaluation plan is split into three separate parts: Usability Specifications, Heuristics Evaluation, and Participant Survey and Feedback.

**Usability Specifications**

The creation of this prototype will aim to achieve the following measures when it appeals to the use:

* Effectiveness: How well the prototype performs the required tasks.
* Efficiency: How easy and simple the prototype is to use.
* Utility: How well the prototype supports suitable functions and alternatives to certain tasks.
* Learnability: How easy it is for users to learn to use the prototype system.
* Memorability: How easily users can remember steps when using the system.

**Population:**

Around 10 selected SHS and College participants will be using the prototype. They will be required to do certain tasks outlined for the Prototype and accomplish them. An example task is adding an item to a shopping list. The ListMate prototype must perform the tasks outlined for it to be considered accomplished.

**Prototype Tasks:**

The tasks for this prototype are split into three (3) different sections: ***Main Menu Tasks***, ***List Management Tasks***, and **Recipe Tasks**. Below are some of the tasks that the selected participants will be asked to perform for each section to showcase the prototype’s functionality:

#### **Main Menu Tasks:**

* **Enter and Exit the Prototype**: Participants will be asked to start and close the ListMate app to assess the ease of accessing the application.
* **Navigate the Main Menu**: Participants will explore the main menu to evaluate how intuitive and user-friendly the navigation is.

#### **List Management Tasks:**

* **Create Shopping Lists**: Participants will be tasked with creating new shopping lists to assess the ease of initiating list creation.
* **Add Items to Shopping Lists**: Participants will add items to their shopping lists, evaluating the process's simplicity and efficiency.
* **Delete Items from Shopping Lists**: Participants will remove items from their shopping lists to ensure that the deletion process is straightforward and error-free.
* **Share Shopping Lists with Others**: Participants will share their shopping lists with another user to evaluate the collaboration features.

#### **Recipe Tasks:**

* **Search for Recipes**: Participants will search for recipes within the app to assess the effectiveness of the search functionality.
* **Add Ingredients from Recipes to Shopping Lists**: Participants will add ingredients from a selected recipe directly to their shopping lists, evaluating the integration between recipes and lists.
* **Save Favorite Recipes**: Participants will save recipes to their favorites to assess how easily they can bookmark and retrieve preferred recipes.

These tasks were selected for participants because the prototype was designed with these measures in mind:

* Easy Navigation, ensuring users can easily find and use the features they need.
* CRUD (Create, Read, Update, Delete): Allowing users to perform essential operations on shopping lists and recipes to manage their household shopping efficiently.

**Roles**

The team has will gather at the very least 10 participants when conducting this evaluation. With this is mind, team will split the population and have similar roles in this evaluation.

|  |  |
| --- | --- |
| **Developer / UI Designer Member** | **Task(s)** |
| Fanlo, Matthew Miguel A. | Will be recording time users interact with a task section, taking notes of the user’s experience, and relay the task that the participant will do. |
| Rontale, Rovil Jesus D. | Will be recording time users interact with a task section, taking notes of the user’s experience, and relay the task that the participant will do. |
| Suico, Gabriel Angelo L. | Will be recording time users interact with a task section, taking notes of the user’s experience, and relay the task that the participant will do. |

**Table 2. Team Member Tasks**

|  |  |  |  |
| --- | --- | --- | --- |
| Main Menu | Within 1 minute or Below | Highly Acceptable | Successful |
| Above 1 minute | Not Acceptable | Unsuccessful |
| Folders | Within 5 minutes or Below | Highly Acceptable | Successful |
| Above 5 minutes | Not Acceptable | Unsuccessful |
| Quiz | Within 5 minutes or Below | Highly Acceptable | Successful |
| Above 5 minutes | Not Acceptable | Unsuccessful |

**Table 3. Time Interpretation**

Table 3 represents the interpretation above represents how the team will be interpreting the time spent with each participant in their tasks. The table will be used as a guideline to interpret if the design of given task is successful or not at a given task.

# **Heuristic Evaluation**

Evaluation of R.U.S.T. will also use the 10 Usability Heuristic method of Evaluation.

**Visibility of System Status**

The Prototype will keep the participants informed on what is happening in the Prototype.

## **Match Between System and Real World**

The prototype speaks the user’s language, with familiar words, phrases, and concepts rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

## **User control and Freedom**

The Prototype offers to deal with mistake provided clearly marked “Emergency Exit”. To leave the unwanted state without going through an extended an extended dialogue. Support undo and redo.

## **Consistency and Standards**

Users will not have to worry whether different words, situations, or actions mean the same thing.

## **Error Prevention**

Error Messages are Carefully designed which prevents a problem from occurring in the first place.

## **Recognition rather than recall**

Make objects, actions, and options visible. The user does not have to remember information from one part of the dialogue to another. Instructions for use of the prototype is visible and easily retrievable whenever appropriate.

## **Flexibility and Efficiency of Use**

The prototype caters to both experienced and inexperienced users. Users readily tailor frequent actions

## **Aesthetic and Minimalist Design**

The prototype does not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

## **Help Users Recognize, Diagnose, and Recover from Errors**

Error messages are explained in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

## **Help and Documentation**

User can easily find help and documentation when need to interact with the prototype. This information is easy to search for.

# **Participant Survey and Feedback**

|  |  |
| --- | --- |
| **DATA GATHRERING METHOD** | **DESCRIPTION** |
| Survey (Quantitative) | After the Online thru link Testing, the team will be handing out a survey to the participants to gather data for the user’s experience with the prototype which the team will be interpreting in a 5-point Likert scale (**Refer to Table 5**. **5-Point Likert Scale Interpretation**). |
| Feedback (Qualitative) | The survey that the team provided will support a Feedback section to help users/participants speak out concerns or issues with the prototype that needs to be addressed. |

**Table 2. Data Gathering Methods**

The table above showcases the three (2) different data gathering methods the team will be using while conducting the online test of the ListMate Prototype.

|  |  |
| --- | --- |
| **Question** | **Method of Answer** |
| **Section 1** | |
| Participant Name | Short Answer |
| How would you evaluate your experience with the ListMate Prototype? | 5-Point Scale |
| How would you rate the UI design of the prototype? |
| How easily were you able to follow the provided tasks? |
| **Section 2: Features of the Prototype** | |
| User-Friendly Interface | 5-Point Scale |
| Shopping List Management |
| Recipe Integration |
| Smart Suggestions from Inspiration Tabs |
| Organizational Tools |
| Profile Accessibility |

**Table 4. Survey Questionnaire**

The table above presents the Questions that will be present in the survey for this Prototype. The Survey can still be viewed through this link: https://forms.office.com/r/eD5ZWQ38H9?origin=lprLink

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Task** | **Time to Accomplish Tasks** | | **Interpretation** | **Classification** |
|  |  | | |  |
| **Scale** | **Range Value** | **Interpretation** | | **Classification** |
| 5 | 4.50-5.00 | Highly Acceptable | | Successful |
| 4 | 3.50-4.49 | Acceptable | |  |
| 3 | 2.50- 3.49 | Moderately Acceptable | | Neutral |
| 2 | 1.50-2.49 | Fairly Acceptable | | Unsuccessful |
| 1 | 1.00-1.49 | Not Acceptable | |  |

**Table 5. 5-Point Likert Scale Survey Interpretation**

Table 5 represents the Interpretation of the survey questions given to the participants. The survey will be used as to interpret whether the design and features presented are successful and useful for students who suffer from pacing issues.