

# Designing for Household Management

## MENAGE



### **Design Group #3**

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## **Introduction**

Most of the time we as humans have so much responsibilities. The things we do might be different that what we know what we should be doing. One main reason to not having tasks completed on time is due to having multiple responsibilities that needs to be done with less time to complete. One responsibility is having to be responsible to clean household regularly and not just when the time allows it. Our jobs, families, school, and other obligations might affect how we think of doing cleanliness. Coming home from a very long day to a messy and not very pleasant home is different than getting excited to get home to a very fresh and clean home. Everyone's reasons to why we don't make time to make our house more of a home is different. Our research report works just on trying to reduce or eliminate the issue of not having regular cleaning times. In our research project we have studied a problem and we worked with different participants to find a way to make it easier. All the details of our need finding of what is done and what needs to be done during the study with all the goals is provided below.

## **Need Finding**

The main problem we researched using the Needfinding Survey was on how people manage the cleaningness of their house appliances. This issue may seem like a minor problem, but from a survey we performed the results showed otherwise. Even Though the reasons to why are different but the most common one is due to lack of time. Current users are typically busy with school or work that they do not think about small chores like changing the air filter or the air conditioning. These smaller chores are often forgotten, but they are also the most important ones. Being able to help others notice how important it's to have a well scheduled time to manage their household cleanliness is very important.

## **User Background Research**

In order to get the important information from users, we have gathered data through an online survey. There were some interesting findings while performing the online survey. The most interesting findings were 35% of the 53 participants we had, they never deep cleaning their

oven before. Their reason to why was, because when they use the oven it is usually hot enough to kill any type of bacteria. Plus they think it is very harmless to cause any type of disease or sickness. So they think the heat will do most of the work and no need to deep clean it. The second interesting finding of our survey, 51% of our participants were reminded of when they should clean their house appliances. As a result they said answering the survey questions it reminded them that there is always something to do at home. When we provide any additional comment section on the survey 45% of the participants suggested we include more answer choices to a question that asks that asks about the life time of lightbulb and to include other as an option.

There were two personas created to explain our findings from the survey. We had a couple of very interesting findings and we created two personas which stand out from all. The first persona was about a young lady named Eyorusalem Michael, that works 2 jobs full time as a Nurse Assistant and part time as a cashier. Ms. Michael is always so busy that she barely have enough time to clean her house appliances. Every night after a long day all she can think of is to go home and go straight to bed. As a result, she is looking for some reminder that keeps track of what, how, and when things need to be done. She said she knows she can use the reminder in her app to do it but it is not capable of performing all the helpful information. As a result she is looking for more convenient way to track the work.

The second person was about a gentleman named Ben, who is a US Marine Reservist and has a full time job as a cook at a restaurant. In addition to that he is at a point in his life where he is beginning his entrepreneurship. Having all this responsibilities, Ben is so busy that he barely have enough time to manage cleanliness of his household appliances. As a result, he is looking for a very accessible, supportive ways to remember and be on schedule about cleaning his house appliances. He knows he is very confident when there is a schedule he have for any time of work he will do it no matter what or when its. Since he has the ability to stick to a schedule he wants to find a way to better do the cleaning and keeping the progress of his household appliances.

## Slack

Design Group #3, Menage, was assigned to evaluate the Slack application. It is relevant to our household managing project because Slack is an application for communicating and planning. Similar to our project, the goal of Menage is to provide users an interactive scheduling, a way for a device to communicate with its user. Slack also have the ability to make internet content more engaging and help people find information fast.

The purpose of Slack is to allow group communication and planning for projects. It's where the people you need, the information you share, and the tools you use come together to get things done. Slack is very user-friendly. Anyone can use it to interact, engage, and share information within a group or a company. It allows users to have private discussions with selected members of the chat.

The left side of the chat area allows users to see the group members of Menage. As well as different channels or discussions where the members can message each other. There is also a notification setting, linking of different apps to Slack, and a search box. The top right on "Menage" gives you more options for personal preferences like profile settings, status, help, and more.

When the name of the user is clicked on top shows the profile. It has all the options as far as settings, preferences, who to add to the group, etc. This section makes it easier for users to see all the options they have within the application. There are numerous options to customize the website based on the user's preferences.

The bar on top of the chat box lets the user know what channel they are on. Below the name, it provides the user a star to favorite this specific channel. It also allows viewing and adding of members, pinning items, and adding topic discussions. On the right side, it has a call button, settings, and search. The three dots on the far right gives the users more options.

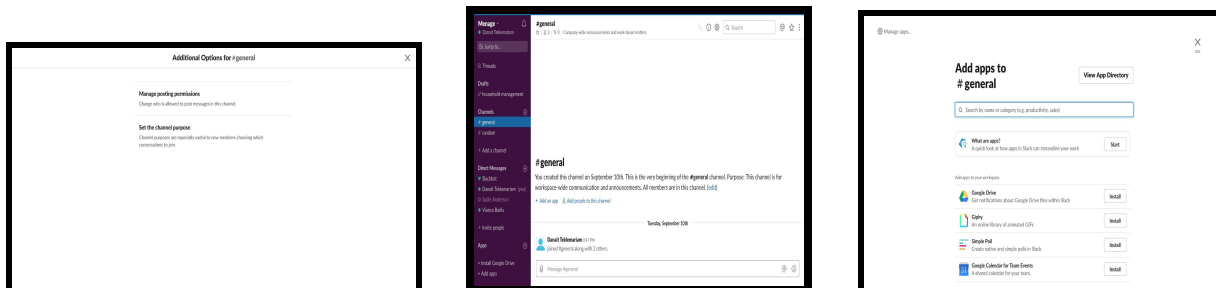
## Visual Design

The application used several principles of visual design. The most commonly used principles throughout the website are balance, patterns, emphasis, and unity. While using the

principals there were elements of art and design used such as the lines, icons, shapes, texture, color and space. The grid used throughout the website are used effectively for a user's perspective. The lines used as grids are drawn as patterns and did not cross over each other too much. The typography used are aligned well, which helps the user follow the different styles and appearances of the website very well. There is an even usage of different colors throughout the website. The colors are effectively used and are not too bright or too dark for the user to follow. In this provided image, there are no elements that are cut across the horizontally aligned lines. For the most part the grids are greatly designed. The only place where the vertical grid is broken is at the search bar. The different sections or columns are used for the subtitles used in the website such as the Threads, Channels, Direct Message, and Apps. The search bars on top of the page also have it's own section. The white lines used helps to create and emphasize elements of the layout and convey specific mood which catches user's attention while using the website. The white spaces between the text contents help to increase the legibility and readability of the website which is a great use of designing.

All of the fonts are in San Serif on this page and the important elements are heaviest in weight than others. This helps to make sure your in the right workspace and communicating with the correct people. The title of the channel is the boldest element on the section provided. The group members names are the next in weight, then the text body, followed by the dates and subtitles being of the smallest in weight. There are three colors used and they are black, grey, and blue. Most font colors are black except the line where the channel is created, the creators name is in blue as well as the option to set a purpose, add an app, or add people to the channel. Some subtitles are in a dark grey as well.

## Slack Heuristic evaluation



1. **Visibility of system status:** The 4 different screen shots provides clear and simple instructions which are easy to follow. Each page is also easy on wording that could lead to confusion. On the left side of page 3, the user is notified that they have an unread message from a recipient. Throughout the application the system informs the users everything that is going on. As a team we gave the visibility of the system status severity rating of 0.
2. **Match between system and the real world:** The application use words , phrases, and concepts that most of the users will be familiar with. Some of the users might have some difficulties with the applications provided on the fourth screenshot provide, but generally speaking it is easy understandable. it follows real world conversations, and it makes the information appear in a natural and logical order rather than system- oriented terms. As a team we gave the ability of the application to match between system and the real world severity rating of 0.
3. **User control and freedom:** pages 1, 2, and 4 provides a back button or an X button which allows the user to exit when there is any functional mistake by the user. There are also icons on the top of page 3 that enables users to view pinned posts, star a channel, and view the channel's members which supports the users to undo and redo any time they like. As a team we gave the ability of the application to give the user to control and freedom severity rating of 0.
4. **Consistency and standards:** Throughout the 4 pages it follows a convenient format where the user don't have to wonder around to find where specific things are. On page 1 it gives the user to choose from the 2 options provides, then it will follow to the next page. At the same time it gives them to exit out of that page by giving them the X mark on top of the page. The same goes for page 2, it gives them options to choose it go to the second page or go back to the first on. Page 4 might be a page a little challenging to manage at first sight due to the color of the page and font size, but overall everything looks convenient for users. As a team we gave the ability of consistency and standard of the application severity rating of 1.

5. **Error prevention:** Better than good error messages is a careful design which prevents a problem from occurring in the first place. Giving hints will either eliminate error conditions or check for them. Before the user choose, the system will provide options based on the user's search. On the first 3 pages there are options to choose from to go to the next page. On page 4 there is a search bar that reduce error from happening when searching. As a team we gave the applications ability to prevent errors severity rating of 1.
6. **Recognition rather than recall:** To help the user memory load the application has various objects, actions, and visible options for the user to use. On page 3, there is a Search Bar that allows users to search a specific messages. It keeps track of the previous search. However, on page 4, it doesn't keep track of previous search which can be challenging for the user to remember if they had done a couple of searches prior to the page they are in. But overall the application have instructions that are visible and retrievable by the user. As a team we gave the application to recognize rather than recall severity rating of 0.
7. **Flexibility and efficiency of use:** When using the application there it is pretty effective and accelerated interaction among users. When there is anything new or options the application have it shows pops up to help the user and let them know of the other options. As a team we gave the ability of the application to flexi and efficiently be used by users severity rating of 1.
8. **Aesthetic and minimalist design:** While using the application there are several pages the user to use. While accessing different pages, the information used are relevant and usually needed by the user. If there is any irrelevant information used it competes with the relevant units of information. Overall this application uses the Aesthetic and minimalist designs of Heuristic Evaluation effectively. As a team we gave the ability of slack of Aesthetic and minimalist design severity rating of 1.
9. **Help users recognize, diagnose, and recover from errors:** Errors can be made easily at any point of time. To make the best out or using slack as an application it is good to help users recognize errors before they happen. If there is an error, it is good to help users



recover from their errors. When the user mistype anything wrong, or put in a wrong username it will explain the user to why it is wrong. Not only that it will even pop red color to grab users attention to fix the error made and offer to help send the user reminder inorder to correctly log in to their account. As a team we think the application effectively help users recognize, diagnose, and recover from errors. As a team we gave the application a severity rating of 0 for helping the user diagnose and recover from errors.

10. **Help and documentation:** If an interface is designed as the best as it can be the user is not supposed to be reach this step at all. Slack have the ability to help the user to navigate the different features of the application. When using this application it is easy for users to search, and focus on the task they are working on through the application. When it comes to helping and documenting we rated the application with severity rating of 1.

## Usability Study

We have discovered various findings across all sections of the report. First, the survey was a great reminder for participants to start cleaning their house appliances. The survey allowed people to think about their household such as maintaining their air and water filters, deep cleaning their oven, and tuning up their heater every year. More than 50% of the people responded that by just taking the survey, they were reminded to clean their appliances, which was the surprising part. The results found that half of the participants do not even have a scheduled time for cleaning. The goal of our design interface is to provide scheduled reminders and DIY videos on managing household chores.

The following reports after the survey showed importance to designing an interface and making it user-friendly. Slack was very organized and orderly; it shows a good design. No confusion was given to the user as it was very straightforward. However, a recommendation on how the design of Slack can be modified to improve usability is giving instructions on how to use other Apps. There is an option to add Apps like Google Drive and Google Calendar. However, it is not very clear. It seems like you can access your files but it shows up only to be a chat. It seems pointless to have and is a very confusing feature.

The lesson of studying Slack is to eliminate confusion. Our group design interface must be direct and have tutorials on how to use the application in the beginning of the sign-up. This will help users clean and manage their household, while giving them ease with the use of an App. The goal is to help and provide assistance to all.

## **Design Goals**

The intended users of our application are anyone who is responsible for doing chores around the house or apartment. Not only that it can be anyone who wants to be part of a community cleaning organizer and not the actual cleaning person. There is a wide variety of letting choosers adding the task they would like to perform or the parts of the house that needs to be added to the application. Any individual would choose our application because it will help them stay on track of their household cleanliness. There are several other tasks the app is capable of performing for users as well. The app will help users set reminders to when they are due, and DIY videos that will assist anyone that needs help while cleaning. As the two provided personas above due to their busy work overload, the app can help by reminding them due dates and provide them with cleaning supplies when they need it.

Using the application will be helpful to the community. One of the different elements of an individual contribution and element of community participation is by community members cleaning their appliances. While cleaning appliances they can also take advantage of checking the status of the equipment that needs to be replaced. Other members living in the same houser that gets to share and be a part of the living space are also contributing elements. I addition to that the living space itself and the cleaning supplies used for chores are contribution factors.

There are various information that can contribute to the community. A displayed photo of what needs to be cleaned is part of the community. The information can be the comments that are shared among the account members living in the house. The message shared can also be among house members and other cleaning agencies of they do the cleaning on a regular basis. Once cleaning is done the application will display the status of all the different tasks completed plus what needs to be done. Scheduling cleaning activities of what, and when tasks have to be

done can also be done by the app. DIY videos will play a huge role to those who struggle or have a hard time learning what they need to do while cleaning. The information the community will receive through this DIY videos is very crucial.

There are several steps the users will take to participate in the functions supported by the application. To make the activity effective there will be tasks before they use our app and while they are using our mobile application. Before user use our application they will need to check their household appliances items. Once the user confirmed of things that need to be done, then during the task they will gather supplies such as cleaning materials, filters, light bulbs and so on for self cleaning users. For other house owners that clean their houses with the help of other cleaning agencies they will put in a request for maintenance. The application will have a collection of cleaning chores such as changing bulbs, deep cleaning the oven, replacing the air and water filter, and much more depending on which room they are in. The app will be similar to a workout application where there will be categories such as kitchen, bathroom, living room, and other rooms that needs maintenance. Within those categories, there will be cleaning activities listed. Within those cleaning activities, a DIY video, a step-by-step description, and cleaning supplies list are provided to the user.

Once the cleaning activity is completed it will have a “Complete” button that will mark the chore done and set a reminder in the future for the next change due date. There will be a couple of colors that inform the user the status of their cleaning list. Green color will check for completed task and Red for Overdue. The app will also have the option to share with the household members so that each person is reminded for the scheduled chores they need to do.

In order for the app to define the high level goal of design there will be steps followed by the users. The goal is to transform an existing situation into a preferred situation. The main goal is to help maintain a safe and healthy environment to live in by keeping track of what has been done and what needs to be done. There are two reasons to what makes our applications unique and better than existing similar web or mobile applications. The first reason is how it motivates users to clean and present a proper way for items to be serviced. Secondly it allows people of the

same household to share and keep track of the chores and whose done what. Using the app is very simple, easy to follow, and very effective time wise. The app will always help users to achieve their goals of being part of a community that they can contribute to and benefit from. Users will benefit by being a part of a clean, safe, and healthy environment. In addition to that people can share with other members of the community on how the app helped them maintain a clean household which the whole community can benefit from it. This way users will be able to prevent dangerous situations regarding their health and living conditions.

The potential of the application to help the user is combination of metaphors. The help will be to use a combination of device and a friend. It is a device because it extends the concept of a smartphone appliances to interactive design. For it to be successful the tasks need to be performed by the user's direct control. There are multiple purposes and operations performed. It provides insight into how users can control information, activity, and their environment with intelligent interaction. The ability of supporting the user by providing all the requested information by the user makes the app a friend. Therefore to better assist the user we are designing the app as a device and a friend.



The storyboard in the left hand side tells a story. The story of one person going through the whole process of how noticing that a lightbulb is due. The first box shows how the screen would look like on a smartphone. It is reminding the user its due for the bulbs to be changed. Once a person notice the light bulb is out they went to lows in order to buy a new one. After they change the bulb it will then they will be able to mark it as complete. Notice on the last box

where it says To Do the green color shows the lightbulbs are good, the red color for both the air filter and oven shows it is getting close to the due date to change. That way the user will be able to get the equipment ready for the next maintenance. By following what the app is informing the customer it can benefit the user to reach their goal of maintaining a clean household which is our main goal.

## **Design Description**

### **Design Concept**

The design concept of Menage application is much like other mobile apps. We combined the ideas from workout and social media apps for users to navigate through more efficiently. The major components of the interaction design is the ability to set reminders for chores and be able to access the lists of cleaning supplies, as well as DIY videos. There will be a navigation bar at the bottom where users can maneuver through different sections. These sections include Home, Calendar, To-Do, Search, and Profile.

First, the user will need to login with existing or create a new account. Once logged in, the user will be taken to Home where they will find different rooms for home management. In each room, there will be different chore that can be accomplished. For example, the kitchen will have deep-oven cleaning chore. The user can click on that specific chore and a new page will show. The cleaning supplies, step-by-step, and a DIY video will be shown.

In the Calendar, chores will be posted and the user can either set reminders or mark tasks complete. Once the set reminder is selected, a notepad pops up that has Title, start and end time and date for the reminder, invitees, and notes. If complete task is selected, it will show a notification indicating that the task has been completed and when the next due date is. It will also set up a new reminder for the future due date. The Search will enable shortcuts to different rooms and allows users to search for chores. The To-Do will allow user to complete tasks.

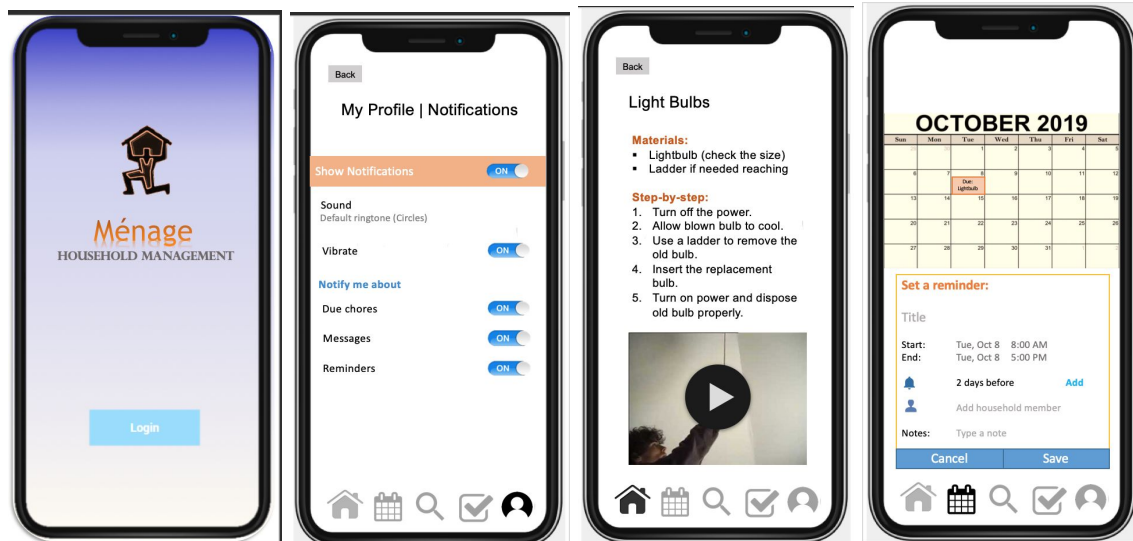
Finally, the Profile will allow users to make an account and notification changes, as well as message other household members. In the notification settings, there are options to turn on and off the sound and vibration. There are also on and off options for what kind of notification

the user will allow, such as due dates of chores, messages from other household members, and reminders. The account settings enables the user to change their profile picture, username, email, and password. The Logout button is also in this page. Within the Household Members of the Profile page, a list of the household members can be viewed. By clicking on the message icon at the bottom right, users can send messages like an email and attach a chore.

We have also selected icons that are familiar to iPhone users since this version is created for an iPhone. Then, we used limited colors such as yellow and blue, which contrasts each other and makes it look captivating in the eyes. The navigation bar at the bottom is also designed like other mobile applications to bring recognition to users, rather than recall.

## Design Prototype

**REPLACE IMAGE ABOVE WITH SCREENSHOT(S) OF YOUR PROTOTYPE**



### Example 1: Icons, buttons, color palette, and slider

#### Signifiers, affordances, and modalities:

Signifiers: “Login,” “On” and “Off,” “Back” buttons

Affordances: Login button, On and Off switches for notifications, play button

Modality: Touch, Mobile

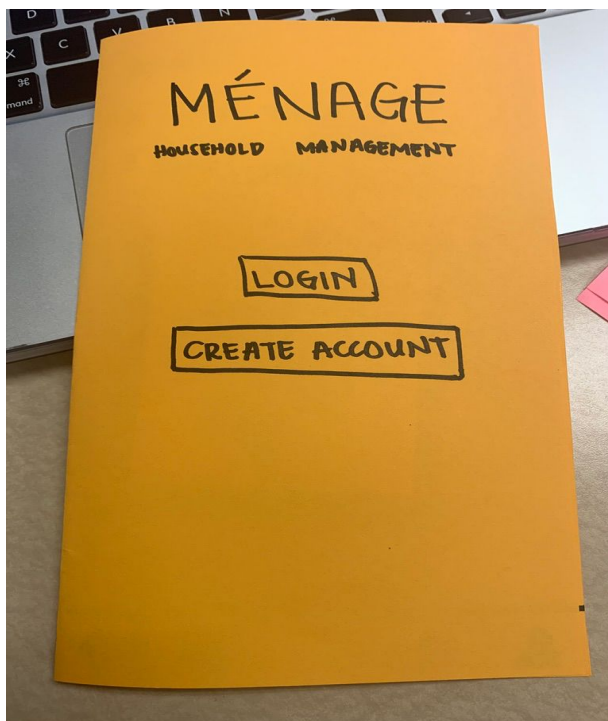
#### Applicable metaphor:

## Device, Friend

### **Description of mapping between metaphor and signifier/affordance/modality:**

Our application is a combination of Device, and Friend. The use of all the different metaphors make our design more creative. The signifiers like “login” and “back” buttons are consisted within the affordances to make use of spaces. The signifiers and affordances give a common sense to the user regarding what to do with the buttons. The affordances are accessed through the use of touch in the mobile application.

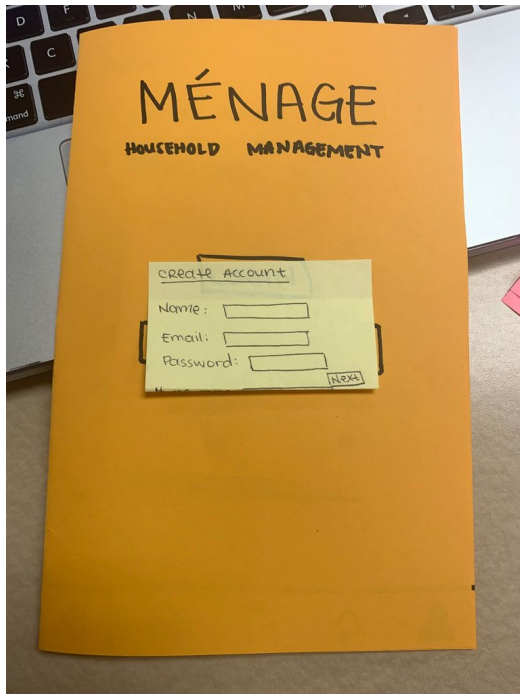
When first designing our application we started with paper prototyping. Using that to create our design helped us better understand and picture how the actual application would look like. We started out basic with some goals to achieve. The first thing we decided to do was write out all the goals we have and tie that to design every page to best way possible. After finishing up this paper prototypes we have showed it to our professor plus a couple of other people to get some feedback. We did get amazing feedback that helped us better design to have a closer resemblance to our final design. using hi fidelity prototyping



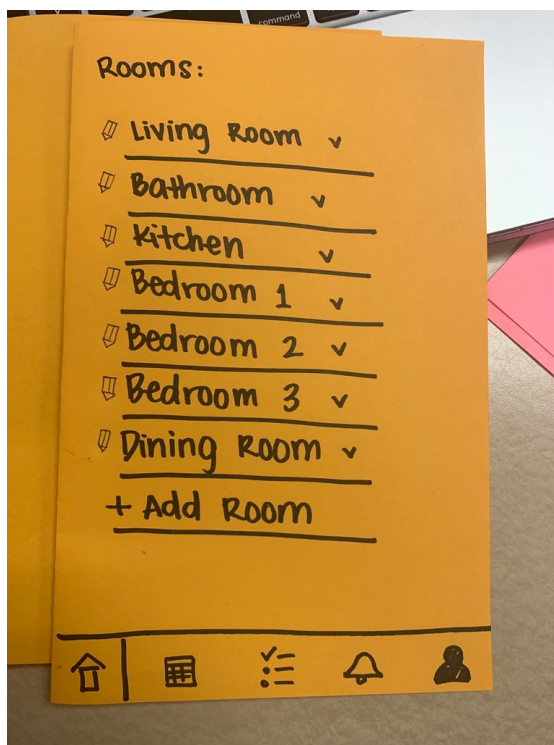
The picture on the left was designed to show how our home page would look like. It would have the name MENAGE meaning member of a household. On the homepage there will be an option for new users to create an account or to simply login if they are returning users. If they are returning it will simply take them to their account, but if they are new it will take some of their information to create their account. To design with minimalism and not cluttered with



unnecessary items we decide to reduce the two different login and create account boxes with just one. That was one of the feedback we have received and made the adjustment accordingly.



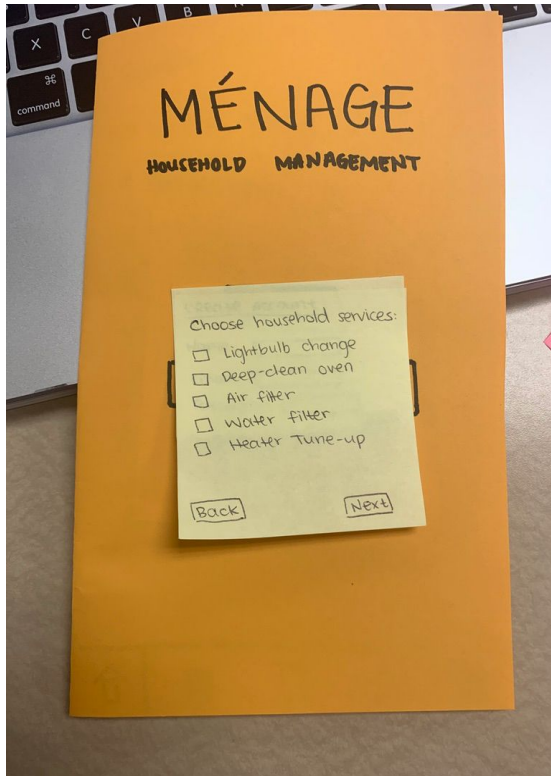
Once a user clicks to create an account this will be the page that will pop up. It will require them to include their name, email address and password. Once they click next it will take them to the next page. One main button we forgot to include later reminded by the feedback we gathered was the back button to the homepage. We have made a note to ourselves to adjust that.



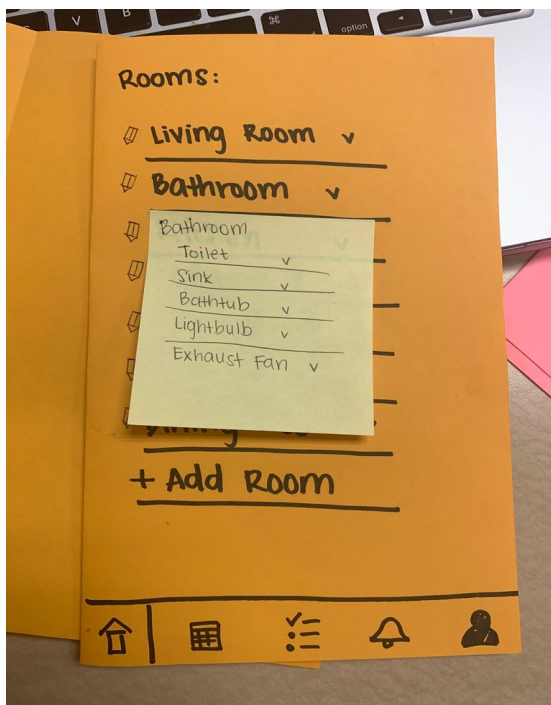
The next page will look similar to the picture to the left. The user will have options to choose and include on the list of rooms they like to include in their cleaning schedule. There are a couple of options which every page drop down menu will have its own included information. Not only that the five different mainpage, calendar, notification, and account buttons will be added on the bottom of the page. When a user clicks on any of them it will take



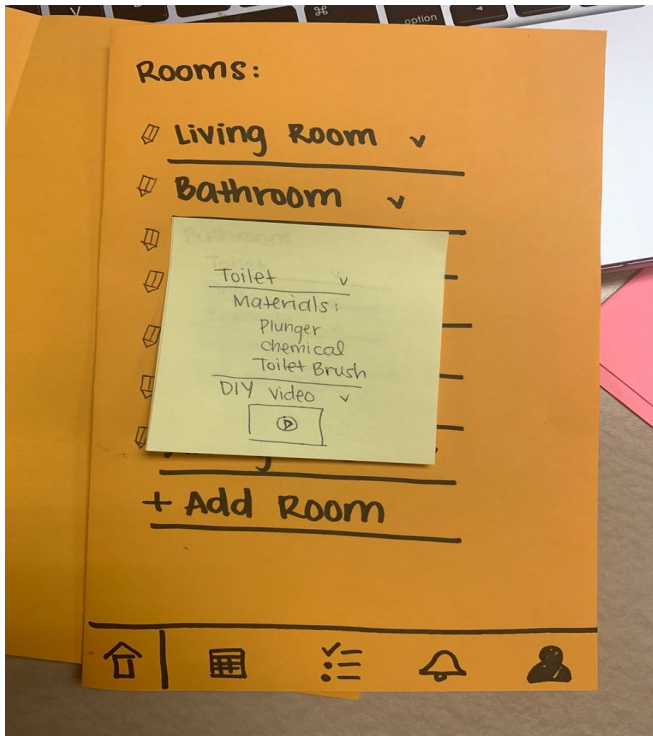
them directly to the page instead of wandering around to find the information and keep clicking back or next. After finishing this up looking at this page makes it very cluttered with information. We made a note to reduce the number of rooms to include since most of them will have similar cleaning to do. Another mistake was not having the next button after the users edited their home.



This is just a sample of how one room will be designed based on what needs to be included. Users will be able to choose the service tracking they need help with. They can either go next or click next after selecting the services they choose to do. Again we note to reduce all the common services that needs to be done from each room that way the information won't be repetitive in every room they click on.



One room we choose to further design was the bathroom which will include the toilet, sink, bathtub, and so on. Looking at all the different rooms of the house, they all have similar services that needs to be done and we decide to cut back on that as well.



This is another screenshot of how the toilet dropdown menu will look like. It will include the necessary information that can guide the user clean their toilet effectively. It will have two sections to include the supplies needed and DIY video to use while cleaning. There was nothing that needs to be reduced from this page so we decided to keep the layout for the future design of the application.

After designing these prototypes we have prepared a couple of tasks for the users to try out. The tasks are basic and easy to follow because our design is still in the process of satisfying our users. For the users to do the following tasks we were open to receive feedback and make sure we have provided the user with enough information to do what is required. The tasks to be completed by the user were as follows:

- Log in or create a new login
- In creating login, input name, email, and password
  - Also input preferences
- In the home page, choose different rooms in the house
  - Names of the rooms can be edited
  - Users have the option to add another room
- For all the rooms they are provided with materials and DIY videos

By users being able to flip around and observe the design we have accomplished most of our goals. Not only that we have received amazing feedback that can better help us design our application with the best possible outcome to fulfill our goals.

## **Usability and Evaluation**

The goal of Menage is to help users maintain a safe and healthy living environment. It transforms an existing situation into a preferred situation by keeping track of what has been done as well as what needs to be done. The goals of the usability study were to have users navigate and interact with our household application. Observe if the user was having difficulties that needed to be accommodated within the application, and provide efficient and easy access for the user to succeed with everything they wanted to accomplish.

Menage's design prototype was evaluated through an experimental usability study and interviews. The evaluations were conducted on a total of 10 participants. Everyone contributed to recruiting participants for the evaluations, facilitating a time and place for the evaluations to take place as well as taking notes during them. Each participant was greeted by being introduced to by the design group and stating the design goals of the project. We then asked the participants if they would be interested in a home cleaning app that notifies and updates them on household chores that need to be done and items that need to be cleaned. Each participant was then briefed by informing them that the evaluations were anonymous and the results were solely used to make improvements to the app. Ensuring them that all their information was safe and that they can stop the study at any time.

To begin the study we made sure each participant was capable and comfortable using a smartphone. Menage isn't designed with any complex or uncommon context so we did not explain to the users in detail how to work the app, however if the participant was struggling we gave them tips on how to easily navigate through the application. The participants were read the following introduction :

*“Thank you for agreeing to participate in our study on our home cleaning app, Menage. Menage is a home cleaning app that notifies you of household chores and items that need to be cleaned. The goal of this study is to see how easily accessible it is to navigate the app and how long it will take participants to accomplish each task.*

*If you have a cell phone and you’re not expecting any emergency calls, please set it to silent mode so that it doesn't affect the time taken to complete the given tasks. Before beginning here is an overview of what you will be doing.*

*This study will be timed and recorded. You will be shown the home page of the app, allowing you to create an account. After creating an account the timer will begin and four tasks will appear. Complete the tasks one by one and log out of the app once you are done.*

*This is an anonymous study, the results are solely being used for making changes and improvements to the app. All of your information is safe and you can stop or not answer any question that makes you feel uncomfortable.”*

The evaluation then began with participants creating an account, choosing a living space, then completing the tasks assigned. In this evaluation the data collected observed users navigating the app and how long it took them to accomplish the following tasks:

- Watching a video on how to clean a toilet.
- Figuring out when the due date for the bulb is and set a reminder to do buy a new bulb in the next 2 days.
- Sending a chore to your roommate John and say, “You are scheduled to do this chore tomorrow.”
- Figuring out how much baking soda and vinegar you need to deep clean the oven.

Allowing the user to perform and complete the tasks helped in answering the question of the app being easily accessible to users. Having the participants complete these tasks also allowed us to determine if the participant was taking more time than expected to complete a task, this being the case we have taken steps in making improvements and modifications in our app so that it is now easier for the participant to use. There were a couple of recommendations we got from users to make the app easier to use.

If a participant wasn't able to complete a task we would thank them for their time and appreciate them for what they contributed to our research, asking them if they found anything difficult while navigating through the app and about tasks receiving feedback that could have made the app more efficient. After the participants were finished with the study a semi-structured interview was conducted. Including the following question:

- On a scale of one to ten how much did you enjoy the app? Why?
- Would you use this app again or recommend it to others? why?
- Which tasks did you find more difficult than others?
- How effective do you think this app is for anyone to you?
- What was your favorite and least favorite task to do throughout the whole process?
- Do you think making some changes could benefit the user?
- Is there a specific thing you would add or remove from the app?

We asked these questions because Menage is designed to be a user friendly app and answers to these questions will allow us to get feedback from a user perspective. The participant may notice or have ideas that the designers may not recognize and this will help in improving the app. We asked the participants if they would use the app again to determine if the app seemed useful to others. Menage is designed to be an everyday app so they're will be constant updates so that users can connect the app with as many appliances and chores as needed. Many participants enjoyed using the app and thought it was efficient. They would use the app again considering it's on your smartphone and being that it's easy to put off cleaning, the constant reminders would allow for chores to get done sooner. Most of the tasks were of the same level of difficulty and it was recommended that we add a few improvements that will be mentioned later. Each participant was kept up with by using a checklist which included notes about the participant at the bottom.

## Menago User Study Checklist

### Setup:

- ☐ Ready small gift bag that hold small chocolate bar, lollipop, airhead, and a mechanical pencil
- ☐ Rent library room
- ☐ Set up a webcam and record through a phone camera
- ☐ Turn off cell phone

### Starting Study:

- ☐ Read introduction script
- ☐ Start recording as soon as they sat down to perform the task
- ☐ have participants start

### Midpoint:

- ☐ Note start time of creativity task
- ☐ Inform them they have 10 min left, then 5 min left before their time is up
- ☐ Ask if they want participants copy of their work
- ☐ Save the image
- ☐ Save as PNG, unless they want, in which case let them know to ask

### Wrap Up:

- ☐ Give the participants the gift bags
- ☐ Thank them for their time
- ☐ Stop the recording

### Notes:

ParticipantID: \_\_\_\_\_ Start Time \_\_:\_\_ End Time \_\_:\_\_ Wants A Copy: \_\_\_\_

After completing the study, the results showed that the app was easy to use overall. We asked all of the participants the questions above, following the survey to receive feedback. The questions we choose related to our design goals and they allowed us to receive the feedback we were hoping to get. There were a couple modifications made to the app including implementing a back button at the top corner of each page so that users can be able to easily navigate back and forth within the pages they are in. In the reminders section of the app a feature will be added

allowing the user to input how frequently they would like updates. All participants were able to complete all of the tasks in a timely manner with no help needed and all of the feedback was sufficient enough to make the needed changes in the app.

## **Summary**

In conclusion we have discovered various findings across the entire section of the report. In the need finding, we have performed a survey to gather some information about how people are scheduling their cleaning schedule. The survey allowed people to think about their household cleanliness and how often they need to be done. More than 50% of the people responded that by just taking the survey, they were reminded to clean their appliances, which was the surprising part. The results found that half of the participants do not even have a scheduled time for cleaning. Based on these findings we set up some goals on how to help the users better stay on track of what needs to be done. Then follows a short report on the website known as Slack. Slack was very organized and orderly website which shows a good design. However there were a couple of a recommendation on how the design of Slack can be modified to improve usability is giving instructions on how to use other Apps. There is an option to add Apps like Google Drive and Google Calendar. However, it is not very clear. It seems like you can access your files but it shows up only to be a chat.

The goal of Menage is provide a usable and helpful tool to users who have difficulties finding time to do chores and other house managing activities. The metaphors used in the household management app are device and friend. Device because it is designed to be a mobile application. The application provides user control with the reminders, personal preferences for account and notification settings, etc. The user can also message other household members and attach chores. The application provides better service, performance, and ease of use to the users.

The other metaphor is friend. The Menage app supports the users by providing advice and support to the users. The reminders and the provided list of materials/cleaning supplies, step-by-step instructions, and DIY videos are the best example. The Menage app goes above and beyond to provide its users a simple but helpful tool to use when managing the house. The

application also allows users to still have personal preferences with their notification and account settings. Along with the mentioned support, the application also sets future reminders for the specified completed task.

Generally speaking of the main reason of this report to accomplish a goal of Menage is to help users maintain a safe and healthy living environment. It transforms an existing situation into a preferred situation by keeping track of what has been done as well as what needs to be done. The goals of the usability study were to have users navigate and interact with our household application. The goals were met during the design of the Menage application. The future of the Menage application can be a very big thing. It will have the collections of all kinds of household chores and other managing activities for a living space. The Menage application can be a very useful and effective tool for all to use and maintain their home clean and healthy to live in.