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HOME REPAIR AND SERVICES APP

CPSC 481 - FALL 2020
HUMAN COMPUTER INTERACTION I
STAGE TWO

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Project Description

The Home Repair and Services App is a mobile application that will provide home services such as plumbing, electrical, cleaning and paint works to users. The app aims to provide convenience to users by bringing all the services needed available in one app. The app will be primarily used by customers such as homeowners or tenants who are looking for a specific home repair or services. Home service providers will also use the app to provide their service to the users of the app. Customers are expected to use the app to search for a specific home service and find the nearest service provider from their location. Customers are also expected to make inquiries, book appointments, make payments and give ratings using the app. Service providers are expected to use the app to provide answers to customer's questions, confirm appointments and give promotional offers to customers. Home Repair and Services app will be very helpful in finding the best service providers for customers who are experiencing unforeseen home equipment problems that require immediate repair.

Stakeholders

Customers

- Customers will be the primary users of the Home Repair and Services App. Customers can mostly be, but are not limited to, homeowners or tenants. The customers of the app are those people who have a very busy schedule and don't have time to do quick fixes in the house or those who don't have knowledge with any home repair procedures. Customers can use the app to look for a home service provider specific to their needs and book for an appointment at their own convenience.

Service Providers

- The home services providers will also use the app to provide their services to the customers of the app. Home services providers can be a company or an independent certified home service expert. Service providers are people or companies that provide services such as house cleaning, furnace and duct cleaning, plumbing, electrical work, paint work, home improvements and many other home services. They will use the app to offer services to customers and communicate with customers for additional information and for any other concerns. They will also use the app to confirm appointments of customers.

User Research

Historical Analysis (Learn)

The user research approach we used while conducting Historical Analysis including my studying about and talking to different groups of people belonging to different age brackets of the society of how they dealt with home repairs when they came across such a situation in different scenarios and how the existing services have evolved. These groups ranged from elderly couples, bachelors, business, (above the age of 45), young couples, young bachelors, single (young and old) mothers/fathers (between age 25 to 30), students staying with parents and alone (between age 15 to 22) and lastly, the children (of age 6 to 14). The reason we picked this method was to see how the home repair viewpoint and its services have been perceived through various stages of development. This method helped us identify the customer behavior (in terms of) when it comes to any home repair services that they have used in the past or present or the way they would have anticipated the outcome of the service compared to the actual outcome of the service and how they would improve it going forward. Hence, this gave us an insight into how we can project these patterns into the future. We learnt that in the past and present some elderly and middle aged working people would simply contend with the problem faced at home (eg. faucet repair) till they found time to fix it themselves. Handling repairs in their busy lifestyle with no support available at ago was deemed frustrating by many.In other cases, for centuries now, many boomers told us that they took (and continue to take) repairs up as a hobby and enjoy fixing it as a pastime, given no time constraints. In present times, some students, children and adults said they would ‘google up’ how to fix something or find someone to fix it which, again, was time consuming. Some said, they would have to replace the product instead of repairing it as they did not have time to learn how to fix it or the resources as the resources/tools for some repairs would be too expensive (eg. printer repairs).

A Day in the Life (Look)

We used “A Day in the Life” method to collect information about the user in their daily routine. This method will be helpful to elicit data about the needs of the user, the challenges the user face everyday, the behaviour of the user and the factors that might affect the user. Since our team’s goal for home services and mobile app is to provide convenience to customers, this method is helpful because the findings will help us identify solutions that can provide satisfaction and convenience to the users.

For this method, one of our team members asked two members of his household to document their daily routine. The participants of this method are representative of the users of the app since they are homeowners. He also made observations about their daily routines. Pictures of the observation and a summary of daily routines based on observation and documentation can be found in the Appendix page of this report. Through this method, we were able to see the participant’s busy schedule, the amount of time they allot on different activities, the amount of rest they get, their priorities and also their frequent use of phones. These information are vital for the project so that we can design a solution that will suit a busy lifestyle and can alleviate some burden to the users.

Card Sort (Ask)

We used the “Card Sort” method to gain information on how users would like the overall layout of our website to look. We wanted to gain information on where users would preferably like to locate several features in our website.

For this method, one of our team members created cards of different available features of our website and asked two members of his household to put each feature card under the classification (webpage) where they think it belongs to. The information gotten from this card sorting process is vital to enhancing good user experience as users would have a good idea of where to find features they are looking for. Pictures of the result of the Card Sort process can be found in the Appendix page of this report.

Reflection

What went well?

Historical Analysis was an informative and insightful conversation with a different group of people as it showed me how the past, present and future have shaped the perception of doing repairs to having the need of a home repair and service app to assist the now busy lives of individuals. The research reflected on the timeline pattern of the home repair services evolution and its requirement on the go. After doing the historical method, A Day in the Life method was conducted. These methods complement each other as the information gathered from the historical analysis can be verified and observed through the daily routines of the participants. A Day in the life can show how people go with their life which can be different compared to the historical data. Card sort method complemented the previous method as this gave an insight on the importance of different features of the possible users. The card sort can provide information on how the user will interact to the app that might not be seen on the previous method. Overall, the research went well and provided helpful information for the project making.

What went poorly?

Due to COVID-19 restrictions, the sample size of our user research methods are very small which also means that the results does not cover all variations of cases or scenarios and is not very representative compared to having more participants. Along with the fact, that study of different sets of people belonging to different age groups was also made a little tedious due to COVID-19. Hence, we had to rely on people in our family (relatives) and co-workers.

What would you do differently?

For future research and if the situation allows, it would be more beneficial and informative if we can increase the sample size of the user research so that the data that will be collected can be representative of all the varying factors that we are trying to cover for the context of our project. While there is still pandemic going on, we can also choose methods that will require less people without sacrificing the information that will be gathered for the importance of research for the project.

User Task Descriptions

Must be included
Customers can search the given categories of services (eg: plumbing, electrician). This will also let the customer to filter or sort the search results based on location, price and customer ratings.
Customers can view available appointment times and dates and book an appointment for a home service based on their liking.
Customer can communicate with the service provider using the live chat feature
Customers can give reviews and ratings for a service provider and can also see the reviews of others for a specific service provider.
Important
Customer can have access to a list of providers that provides urgent services using the urgent service requirement feature
Customer can choose from different payment options
Could be included
Customers will be able to track home service providers on their way to the customer's home.
Service providers can prove their qualification and certification as a service provider using the verification feature of the app.

Appendix

1. Historical Analysis (Learn)

The link used as reference for the historical analysis is provided below.

https://home.howstuffworks.com/home-improvement/repair/10-home-repairs-break-bank.htm

2. A Day in the Life (Look)

Observations were made while conducting this method. The notes that were taken during the observation were summarized through an infographic showing the daily routines of the participants. Pictures were also taken during the research.

Daily Routine

PARTICIPANT B

WAKES UP **7:00 AM**

7:00 AM- 7:30 AM
HAVE BREAKFAST WITH FAMILY

7:30 AM - 8:30 AM
GOES OUT FOR A WALK

WATCHES TV
8:00 AM

BROWSE THROUGH SOCIAL MEDIA

9:30 AM
Lawn and yard cleaning

10:30 AM
PREPARE FOR WORK

TAKE A BATH

DOUBLE CHECK THINGS TO BRING

PREPARE LUNCH BOX

11:00AM Drives to work

Start of work **11:30 AM**

4:30 PM Break Time

Goes back to work **5:30 PM**

7:30 PM
FINISHES WORK

Drives back to home

Fills up the car **7:50 PM**

8:00 PM
Arrives at home

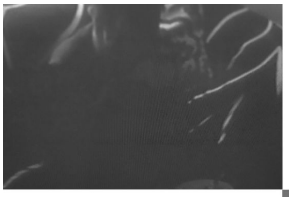
8:30 PM
EATS DINNER

9:00 PM
Calls relatives abroad

10:00 PM
Watches TV and uses phone

10:30 PM SHOWER BEFORE GOING TO BED

11:00 PM
GOES TO SLEEP



HAVING BREAKFAST

GETTING READY TO WORK

DRIVING TO WORK

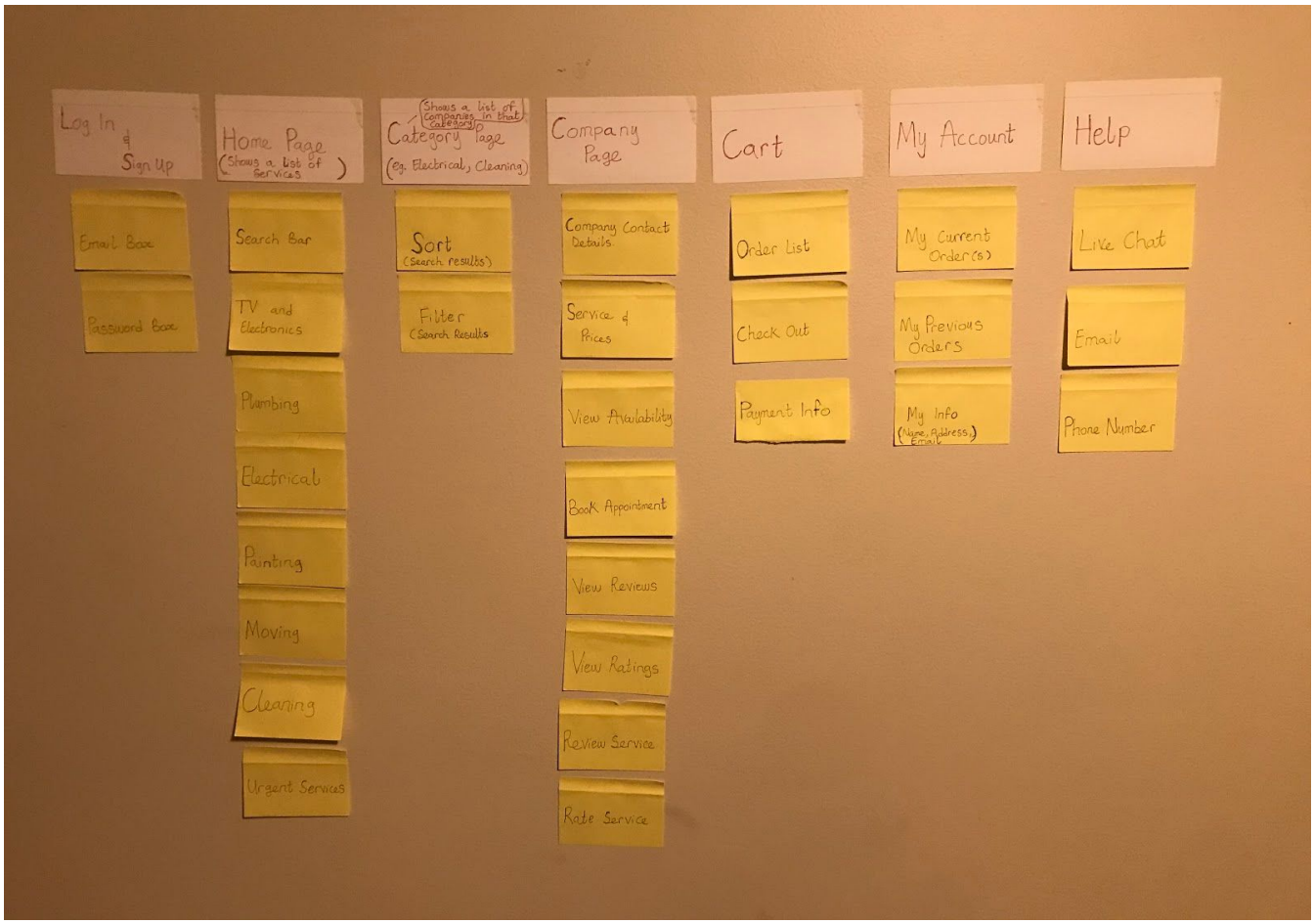
ARRIVING HOME FROM WORK

HAVING DINNER

LEISURE TIME (WATCHING TV AND USING PHONE)

3. Card Sort (Ask)

The photo below shows the cards that were sorted by the respondent of this method. This photo shows how the user organized the cards. A table is shown as well for clarity.



Log in and Sign Up	Home Page (Shows a list of Services)	Category Page	Company Page	Cart	My Account	Help
Email box	Search Bar	Sort	Company Contact Details	Order List	My Current Order(s)	Live Chat
Password box	TV and Electronics	Filter	Services and Prices	Check Out	My Previous Orders	Email
	Plumbing		View Availability	Payment Info	My Info (Name, Address, Email)	Phone Number
	Electrical		Book Appointment			
	Painting		View Reviews			
	Moving		View Ratings			
	Cleaning		Review Service			
	Urgent Services		Rate Service			

Online Repository Link

https://github.com/leanard-valencia/CPSC481-Team-Project/tree/stage_two

Online Portfolio Link

https://leanard-valencia.github.io/CPSC481-Team-Project/