



Human Computer Interaction

TECHNOLOGY PARK MALAYSIA

CT026-3-2-HCI

GROUP ASSIGNMENT DOCUMENTATION

APU2F2402CS(AI)

HAND OUT DATE: 5/8/2024

HAND IN DATE: 15/11/2024

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1 Proposal

1.1 Introduction

Craigslist was founded back in the early '95 by Craig Newmark as an email distribution list. It started out as him helping out by telling people about events around San Francisco. It was also made to function as a way to connect family members and friends together via the internet. But as it became more well known and was meeting the demand of deploying servers, a name inevitably needed to be made. Craig initially wanted to name it as "sf-events" but was later reluctantly convinced by friends to call it "Craigslist" to reinforce its down-to-earth nature. The website over time started to be used to submit listings of stuff for sales, jobs opportunities, and even housing which is due response to the apartment shortage happening in San Francisco. Craig would later write a software for automatically uploading email postings on to a website which will then be named www.craigslist.org.

By the end of 1997, Craig was approached with the idea about running banner ads for revenue but he decided to make it non-commercial, as by his words that some things shouldn't be about money, and that he made enough through contract programming. In early 1999 Craig will start devoting himself to work full-time on Craigslist alongside other folks who joined hands with him.

Currently, Craigslist website offers several categorized forums for users to upload and review posts. The categories available are community, services, discussion forums, housing, sales, and jobs. Different main categories can be split into more specific forums. The users can have discussions, find jobs, post advertisements, read housing reviews, shop, and sell stuff. There is a calendar to see events happening on the selected date. Since the whole website is separated by regions, users can select other websites in other regions that are close to them.

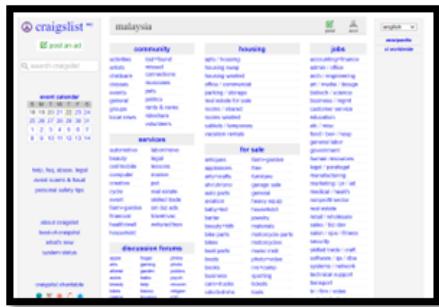


Figure : Main page of Craigslist website

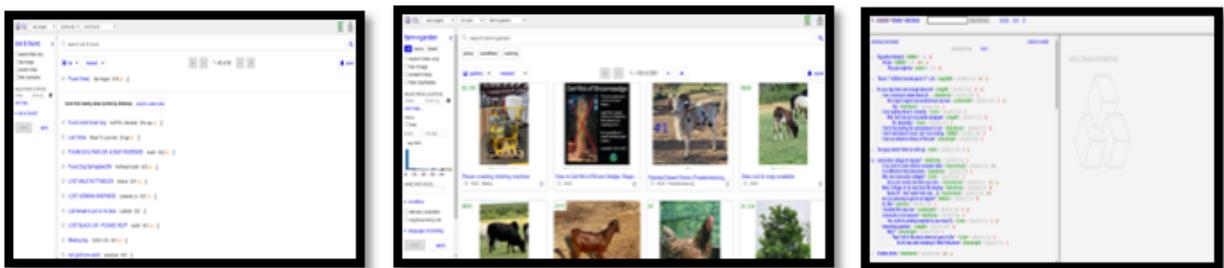


Figure : Overview of Craigslist Website

1.2 Objectives

The objectives of this project are to deliver a series of enhancements that will significantly improve the user experience on Craigslist. Currently, Craigslist faces several challenges that hinder its usability and effectiveness, including poor navigation design, inefficient search capabilities, an outdated user interface, and limited user engagement features.

First, we will redesign the platform's navigation and search functionalities to create a more intuitive and efficient user experience. By introducing advanced search filters and a streamlined navigation structure, users will be able to find the content they need quickly and with minimal effort.

Second, we will update the user interface by refreshing the visual design to align with modern web aesthetics. This will improve the overall look and feel of the platform while preserving Craigslist's trademark simplicity and functionality.

Third, we plan to introduce personalized user experiences. This will involve developing features that allow users to customize their interaction with Craigslist, such as tailored content recommendations, customizable homepages, and notifications for new listings that match user-specific criteria. These enhancements will make the platform more relevant and engaging for individual users, fostering greater satisfaction and encouraging repeat visits.

Finally, we will focus on increasing user interaction by adding features like personalized dashboards, saved searches, and the ability to follow specific categories or sellers. These enhancements are intended to encourage users to engage more deeply with the platform, transforming Craigslist into a more dynamic and user-centric environment.

1.3 Problem Statements

1.3.1 Limited User Engagement

Craigslist does not have many features which can enable each consumer to remain active in the site's community. Some of the notable lacking features on the platform include indie recommendation features, bookmarking features, and follow settings like following categories and sellers. That is why, without such characteristics, users have no desire to come back to the app more often or spend much time there. This limitation greatly decreases the user engagement, as the platform does not foster a fun and engaging experience to bring users back. The absence of engagement options is another sign that Craigslist could be lagging on certain aspects of user involvement; this is vital when it comes to the platform's long-term expansion and usefulness.

1.3.2 Lack of Personalization

Currently, there isn't a personalized experience on Craigslist, where people don't have a way of customizing their experience based on their requirements. Another disadvantage of this general approach is adaptability where the application does not take into consideration the different types of users and their activities resulting in a rigid user interface. The lack of simple customisation options like different homepages for different users or content that is more relevant to the user based on their activity, or even just simple notifications for new listings of things the user might be interested in using their previous

activity on the site means that the platform cannot engage with the user on a more profound level. Therefore, the users are not satisfied with the platform and the platform loses a great opportunity to make the most out of the user-anchored specific engagement. This is a big disadvantage given the current cut throat competition in the classified market and particularly due to the inability to offer users customized experience.

1.3.3 Outdate Visual Appeal

The visual attractiveness of Craigslist hasn't altered in years, and this is now one of the major problems. Craigslist's simplistic design makes the site feel unwelcoming in this day and age when consumers are used to more sophisticated websites, especially new users who are used to a more sophisticated aesthetic.

Furthermore, the inconsistent graphic aspects throughout the platform contribute to the fragmented experience. To start, there is a sense of disarray due to the different font sizes, unbalanced spacing, and absence of a unified layout framework. Because there aren't many visual clues to lead users through the material, this inconsistency makes it more difficult for users to traverse the website easily.

Finally, the issue is made worse by the lack of innovative designs like icons, pictures, and a distinct visual hierarchy. Without these, visitors find it challenging to rapidly recognize vital information or distinguish between different categories and postings, and the design feels flat and boring. Craigslist's entire visual experience falls short of expectations in today's digital ecosystem in terms of user engagement and clarity and usability.

1.3.4 Difficult Navigation and Inefficient Search

Because of its old-fashioned and complicated layout, using Craigslist may be a difficult experience. The navigation of this website is mostly text-based, with a lengthy list of challenging-to-navigate sections and subcategories. The vast amount of information given can quickly cause users to become disoriented or overwhelmed due to a lack of clear organization and intuitive design components.

The difficulty is increased much more by the search functionality. It provides few choices for refining or filtering results, which frequently requires visitors to read through pages in order to locate what they're looking for. It takes longer to find certain products or services since complex search capabilities like auto recommendations and predictive search are missing, which slows down the process even further.

Lastly, the way listings are presented doesn't make searching easier. Users are forced to go through an apparently never-ending list of items that may or may not meet their criteria because there is no efficient method to organize or classify results, which makes surfing feel like an intimidating procedure.

1.4 Solution

1.4.1 Introduce Personalized User Experiences

Features will be created in order to improve the experience of the users of Craigslist to satisfy their requirements and preferences. This could involve the presentation of articles and similarity-sourced content informative of users' previous search queries and various behaviors expressed on the platform. Also, there will be the possibility to set up a personalized homepage for users, in which the most important categories with the listings the users are interested in will be shown. Additionally newsfeed will be added that will provide users with the notification of the new posts that have been added by their search preferences. Through such specific interactions Craigslist is to become more and more 'relevant' and 'close' to each individual user to increase satisfaction and loyalty with the service.

1.4.2 Increase User Interaction

To make users spend more time on the site, there are interactive functions that Craigslist will incorporate to increase the level of user engagement . Some of those features will be general, while others will be custom interfaces such as, a user interface that will allow users to set their preferences, saved search criteria, and the categories or sellers they are following. Another feature will be saved searches to make sure that a users get to see the most pertinent data without waiting for a repeat search to be done on the same. Also, constantly updated content will be

provided by letting the users subscribe to certain categories, or sellers, of Craigslist. All these improvements are designed for organic and intensive user engagement, making users of the platform not only more frequent but also heavier in their usage.

1.4.3 Modernizing Craigslist's Visual Design

Modern aesthetics and a unified color palette are crucial updates for Craigslist's website design that will improve its visual appeal. The website can appear more polished and well-organized by standardizing typefaces, spacing, and layout aspects. Users will use the site more successfully if there are consistent visual signals, such as easily understood buttons and clear iconography.

It is feasible to add features like icons and graphics and establish a clear visual hierarchy to enhance the interface's usability and engagement. Further enhancing accessibility and usability is the implementation of a responsive design that works flawlessly across several devices. Furthermore, using card or grid patterns to arrange content will make it easier to read and comprehend visually, making surfing faster and more pleasurable. Frequent revisions driven by user input will keep the design current and in line with user expectations.

1.4.4 Enhancing Navigation and Search Functionality

Craigslist may enhance its user experience by improving its search capabilities and revamping its navigation layout. By cutting down on categories and streamlining the menu. While breaking up the information into easily navigable parts helps speed up browsing, adding search capabilities like filtering, sorting, and predictive search will help users quickly refine their located relevant items.

Users might find it easier to return to topics of interest by customizing the user experience with features like "Favorites" or "Recently Viewed" sections and personalized suggestions. Making sure that these enhancements are suited for mobile devices and completely responsive will increase the site's accessibility on all platforms. Consistent modifications grounded on user input will maintain the navigation and search functionalities in sync with user requirements, perpetually augmenting the user experience.

Stage 1: User, Tasks and Environment Analysis

2.1 Stakeholders Analysis

Primary user: User, Customer and Seller

Secondary user: Admin, Staff

Tertiary user: Competitors, Shareholders

Facilitating user: IT Teams

Name	Role	Internal/External	Reason chosen/relation
Mr.John	Forum user	Internal	Directly using this website to post forums and view others' forums therefore the requirement on the forum section can be retrieved from this parties in ensuring the user able to achieve their goals
Ms.Sarah	Customer	Internal	Directly using this website to provides feedback and rating to Seller.
Mr.Aron	Seller	Internal	Directly using this website and based on given feedback and rating do changes on their product or related info.
Ms.Kuan	Admin	Internal	Directly using this website to monitor and reduce down time.

Mr.Carl	Staff	Internal	Direction on how the forum page and the other page within the website can be retrieved from them since the process involved within any activities or event in the website are managed by these parties.
Ms.Dennis	Competitors	External	This user is not involved directly but their customers are the one that is going to be engaged through observation / analysis where the limitation and the good aspect of the competitor website will be retrieved from them.
Ms.Evelyn	Shareholders	External	This user will give directions on the expectation of the proposed application and the one that funds the organization and the project.
Mr.Abubakar	Design Teams	Internal	This user can help in suggesting the strategies and experience in developing such application

Group 1 High Interest & high Power	Group 2 High Power, Low Interest	Group 3 Low Interest, Low Power	Group 4 High Interest, Low Power
Shareholders	Customer, Forum user, Seller	Design Teams	Competitors, Admin, Staff

2.1.1 Stakeholders Grouping with Mendelow's Matrix

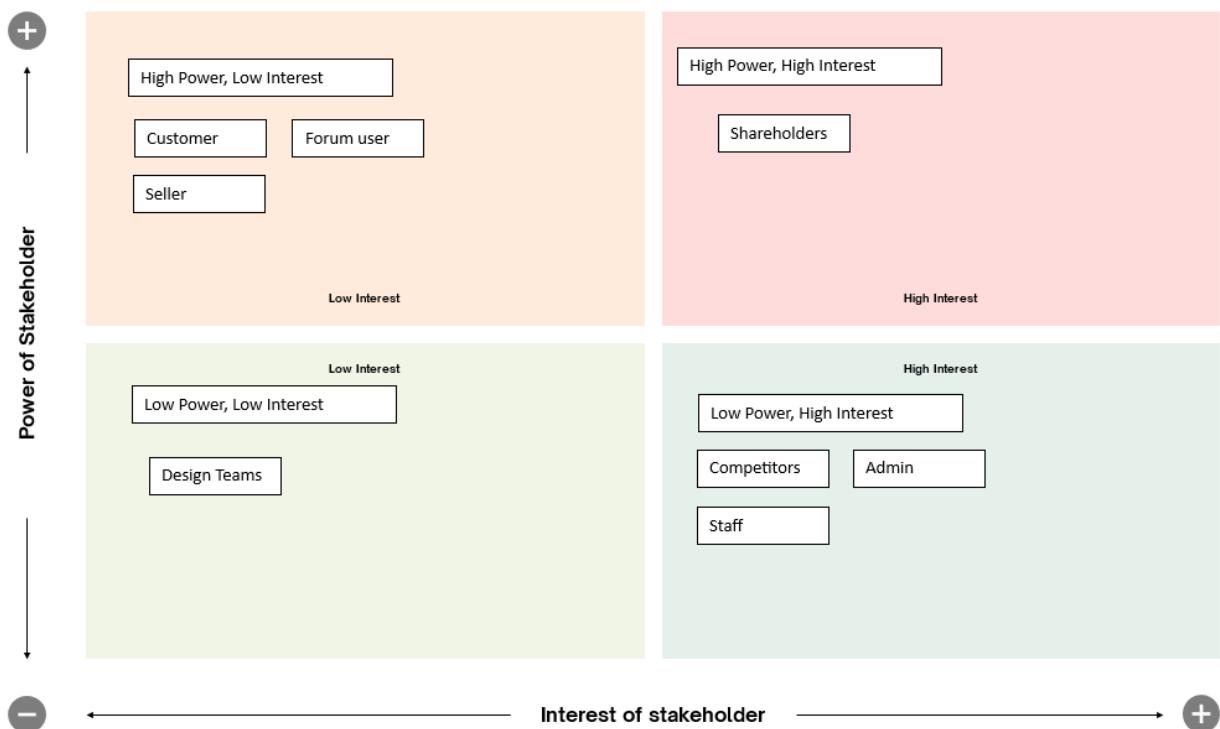


Figure: Mendelow's Matrix

2.1.2 Finalize Findings

Stakeholder Role	Interest	Power	What is important to the stakeholder	How could the stakeholder contribute to project	Strategy for engaging user
Admin	High	Low	Efficient platform	Ensure	Meetings and

			management	smooth operations and compliance from feedbacks then allocate task to staffs	keep users updates.
Shareholders	High	High	Profitability, user growth	Financial backing and strategic decisions	Meetings and reports on the progress
Design Teams	Low	Low	User-friendly design, system reliability	Develop the platform's user interface	Meetings and ensure user focused design.
Staff	High	Low	Job security, workplace efficiency	Perform operational tasks	Meetings and trainings to improve operational effectiveness
Competitors	High	Low	Staying competitive in the market, innovation	Providing indirect pressure to innovate	Analysis reports on market trends, observation
Forum user	Low	High	Ease of use, security, variety of listings and forum	Engaging with the platform, providing feedback and access to forum	Surveys and Users forum to discuss, provide idea and problem solving
Customer	Low	High	Safe, easy transactions, access to list of products	Engaging with platform for purchases	Surveys and communication through message about new features and products
Seller	Low	High	Reach to target audience, trust	Creating listings, providing products and	Offer advanced seller tools and analytics

				services	
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2.2 Data Gathering and Analysis

Method Chosen: Questionnaire and Ethnographic interviews

Justification

Questionnaire is chosen because

-It gathers a large amount of information about a group. Since there are a large number of users using the website.

-The website users are widely spread in the whole country and other nations. Questionnaires can be easily distributed through the internet. It is convenient.

-The information can be gathered in a short amount of time (*Advantages of Questionnaires in Online Research Turn Survey Data Into Actionable Insights With Dashboards and Sentiment Analysis*, 2024).

Ethnographic interviews

Ethnographic interviews is chosen because

-It enables us to study human behavior and understand the cause behind a particular practice. This helps us to analyze the problem and give the correct solution.

- Secondary sources provide second-hand knowledge. For example, documentation is a secondary source, using this source mainly may be unreliable. While conducting ethnographic interviews, ethnographers can obtain firsthand knowledge without worrying about the authenticity and dependability of the data (Collegedunia, 2022).

2.2.1 Details on Questionnaire Execution

Number of Participants	53
Venue	Online
Medium of Distribution	Microsoft Teams
Platform for creating the questionnaire	Google Forms
Number of Questions	4 User Profiling Questions

	5 User Requirement Questions
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Question	User requirement - functional requirement	User Profile Information
Demographic question-Age, gender and location		1
What is your goal you wish to achieve when using this website?		1
Do you have experience on using online forum website?		1
How often do you shop online?		1
Do you prefer shopping in physical stores or online platform?		1
Do you find the UI being frustrating to use?	1	
Would you benefit in any way with a clearer navigation bar?	1	
What feature would you want in the proposed website?	1	
Do you suffer from the situation that you are unable to identify the forum topic quickly?	1	1
Would you like to have a separate webpage for the shopping section?	1	

2.2.2 Blank Questionnaire Sample

The screenshot shows a questionnaire sample page with a header featuring the Craigslist logo (a peace symbol inside a circle followed by the word "craigslist" in lowercase). Below the header, the title reads "Craigslist Website Usability Survey for University Research". A thank you message expresses gratitude for participating in the survey to help improve the website for a university project. There is a link to "Sign in to Google" to save progress and a "Learn more" link. The first question asks "1. How old are you?" with a text input field labeled "Your answer". The second question asks "2. What is your gender?" with a radio button option "Male".

Craigslist Website Usability Survey for University Research

Thank you for taking the time to complete this survey. Your feedback is very important for my university project in a Human-Computer Interaction course. The goal of this research is to understand how easy a certain website is to use and find ways to make it better. Your participation will help a lot with my assignment, and I truly appreciate your input.

Sign in to Google to save your progress. [Learn more](#)

1. How old are you?

Your answer

2. What is your gender?

Male

Figure: Questionnaire Sample Page 1

Male

Female

3. Where do you live?

Malaysia

Foreign

4. What is your goal you wish to achieve when using this website?

Forum

Shopping

Check for event

Job vacancy

Other: _____

5. Do you have experience on using online forum website?

Yes

No

Figure: Questionnaire Sample Page 2

No

6. How often do you shop online?

- Always
- Sometimes
- Never

7. Do you prefer shopping in physical stores or online platform?

- Physical Stores
- Online Platform

8. Do you find the UI being frustrating to use?

- Yes
- No

9. Would you benefit in any way with a clearer navigation bar?

Figure: Questionnaire Sample Page 3

9. Would you benefit in any way with a clearer navigation bar?

- Yes
- No

10. What feature would you want in the proposed website?

- Navigation Bar
- Search Filter
- Other: _____

11. Do you suffer from the situation that you are unable to identify the forum topic quickly?

- Yes
- No

12. Would you like to have a separate window for the shopping cart?

Figure: Questionnaire Sample Page 4

12. Would you like to have a separate webpage for the shopping section?

Yes
 No

Submit **Clear form**

Never submit passwords through Google Forms.

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Google Forms

Figure: Questionnaire Sample Page 5

2.2.3 Data Analysis

Data Analysis Table (User Profiling)

Question 1: Age

1. How old are you?

53 responses

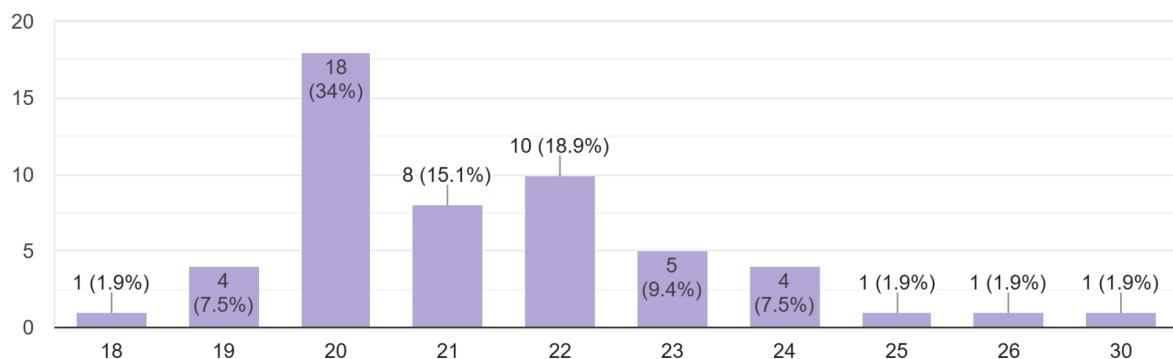


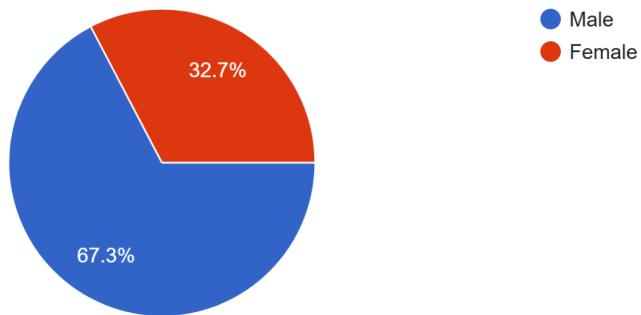
Figure: Questionnaire Analysis Question 1

Analysis	<ul style="list-style-type: none"> • 18 years old - 1.9% • 19 years old - 7.5% • 20 years old - 34.0% • 21 years old - 15.1% • 22 years old - 18.9% • 23 years old - 9.4% • 24 years old - 7.5% • 25 years old - 1.9% • 26 years old - 1.9% • 30 years old - 1.9% <p>Most of our users have an age group between 20 to 22. For the majority of our users, they have an age group between 18 to 30.</p>
Impact	<p>Based on the analysis, the majority of respondents are between 20 and 22 years old, with the largest group being 20-year-olds (34.0%). This age data does not directly contribute to the user requirements but can be used to create a user profile table, describing general characteristics of the participants, such as their age group, which can influence user experience expectations, cultural background, limitations, and familiarity with digital platforms. This information aids in understanding the characteristics of the user base, which may be valuable for tailoring the system or product to meet their needs.</p>

Question 2: Gender

2. What is your gender?

52 responses

*Figure: Questionnaire Analysis Question 2*

Analysis	<ul style="list-style-type: none"> • Male - 67.3% • Female - 32.7% <p>There are more male users than female users.</p>
Impact	<p>From the analysis, the majority of respondents are male (67.3%), with females making up 32.7%. This gender distribution does not directly contribute to the user requirements but can help in creating a user profile table. Knowing the gender breakdown can assist in understanding user characteristics and may offer insights into any potential gender-based differences in user needs, preferences, or interactions with the product. This data is useful for creating a more tailored user experience and addressing any specific needs based on gender diversity.</p>

Question 3: Location

3. Where do you live?

53 responses

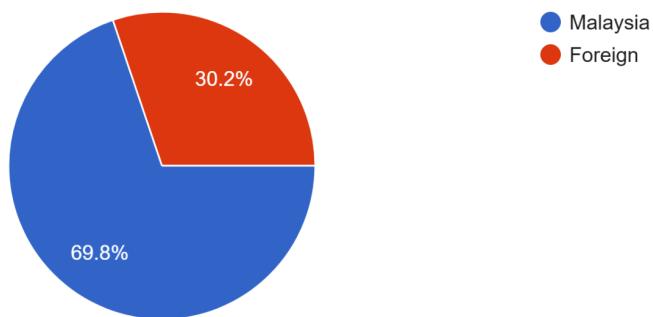


Figure: Questionnaire Analysis Question 3

Analysis	<ul style="list-style-type: none"> • Malaysia residents - 69.8% • Foreign residents - 30.2% <p>Over half of the users are Malaysian, only 30 percent are foreign residents.</p>
Impact	<p>Due to the analysis result above, the data indicates that the website needs to prioritize both local Malaysian and international user experiences. This suggests implementing multilingual support and ensuring the website's content and design are culturally appropriate for both audiences. Additionally, the significant foreign user base (30.2%) indicates a need to consider international payment options and region-specific features in the new version of the website.</p>

Question 4: Purpose of user using this website

4. What is your goal you wish to achieve when using this website?

53 responses

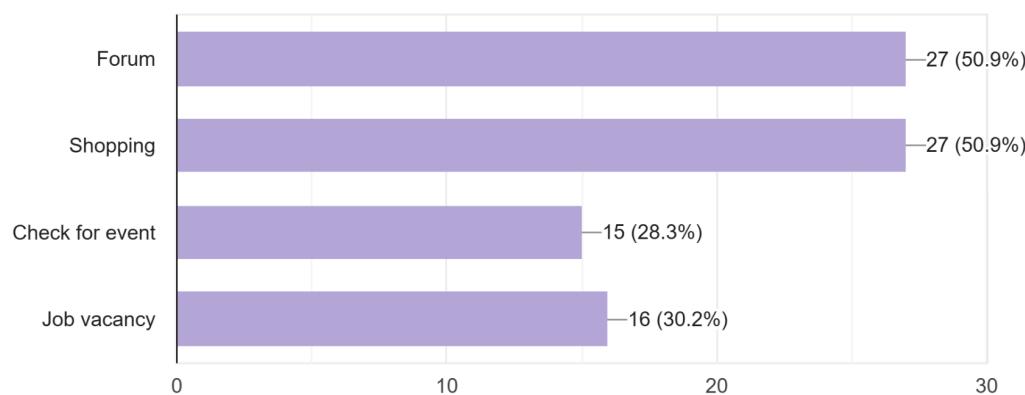


Figure: Questionnaire Analysis Question 4

Analysis	<ul style="list-style-type: none"> • Forum users - 50.9% • Shopping users - 50.9% • Event checking - 28.3% • Job vacancy seekers - 30.2% <p>Most of the user want to access forums and shopping while using this website.</p>
Impact	The analysis shows that forum interactions and shopping features are equally the most popular purposes (50.9% each) for visiting the website. For the new version, these two features should be prioritized and enhanced to ensure optimal user

	experience. The significant interest in job vacancies (30.2%) and event checking (28.3%) suggests these should be maintained as secondary but important features in the website redesign.
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Question 5: Experience on using online forum website

5. Do you have experience on using online forum website?

53 responses

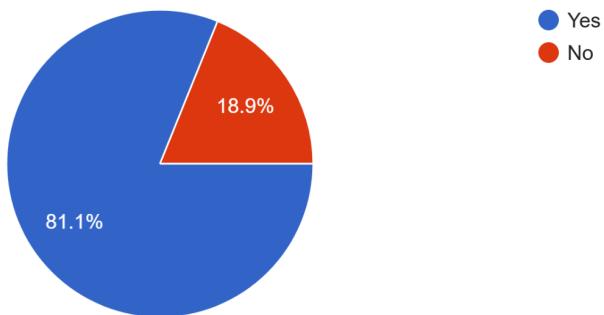


Figure: Questionnaire Analysis Question 5

Analysis	<ul style="list-style-type: none"> Users with experience using online forums - 81.1% Users without prior forum experience - 18.9% <p>Most of our users have experience using online forums.</p>
Impact	<p>The analysis reveals that the majority of users (81.1%) have prior experience using online forums. This suggests that the new website version can assume a certain level of forum familiarity among the user base. However, the 18.9% of users without forum experience should also be considered, and the design should cater to both experienced and novice forum users to ensure an inclusive and welcoming environment.</p>

Question 6: Online Shopping Frequency

6. How often do you shop online?

53 responses

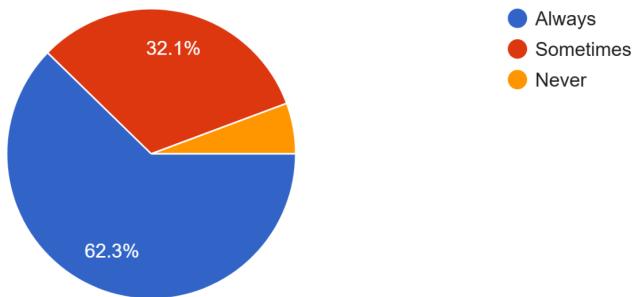


Figure: Questionnaire Analysis Question 6

Analysis	<ul style="list-style-type: none"> Users who shop online always - 62.3% Users who shop online sometimes - 32.1% Users who never shop online - 5.7% <p>A portion of users always shop online and only a small group of users did not shop online before.</p>
Impact	<p>The analysis shows that the majority of users (62.3%) shop online consistently, while a significant portion (32.1%) do so occasionally. This suggests the new website version should cater to both frequent and occasional online shoppers. Key considerations:</p> <ul style="list-style-type: none"> Ensure a seamless and optimized shopping experience for the regular users Provide clear navigation and product discovery tools for less frequent shoppers

Question 7: Preference of shopping online or physically

7. Do you prefer shopping in physical stores or online platform?

53 responses

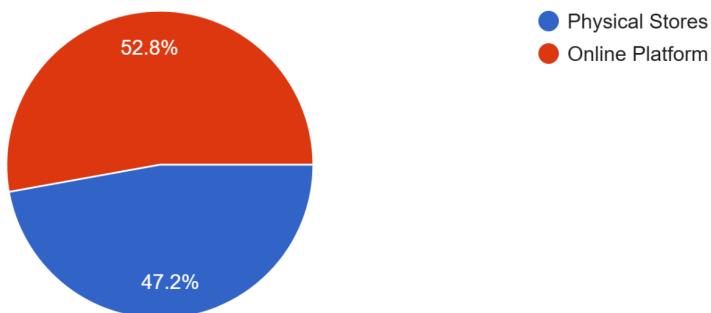


Figure: Questionnaire Analysis Question 7

Analysis	<ul style="list-style-type: none"> Users who prefer shopping in physical stores - 47.2% Users who prefer shopping on online platforms - 52.8% <p>Almost the same amount of users shop online and in physical stores.</p>
Impact	<p>The analysis reveals a fairly even split between users who prefer physical stores (47.2%) and those who prefer online shopping platforms (52.8%). This suggests that the new website version should consider a hybrid approach, providing a seamless experience that includes both in-store and online shoppers.</p>

Data Analysis Table (Research Questions)

Question 8: Do you find the UI being frustrating to use?

8. Do you find the UI being frustrating to use?

53 responses

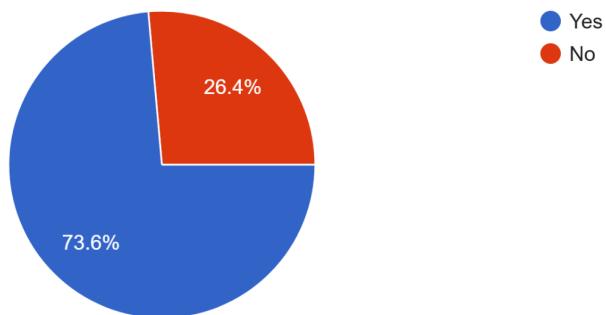


Figure: Questionnaire Analysis Question 8

Analysis	<ul style="list-style-type: none"> Users finding UI frustrating - 73.6% Users satisfied with UI - 26.4% <p>Most of the users find the UI frustrating to use.</p>
Impact	<p>The analysis reveals a significant usability issue, with nearly three-quarters of users (73.6%) finding the current UI frustrating to use. This strongly indicates that a complete UI overhaul is necessary for the new version, focusing on improving user experience and navigation. The high percentage of frustrated users suggests that usability testing and user feedback should be key priorities during the redesign process.</p>

Question 9: Would you benefit in any way with a clearer navigation bar?

9. Would you benefit in any way with a clearer navigation bar?

53 responses

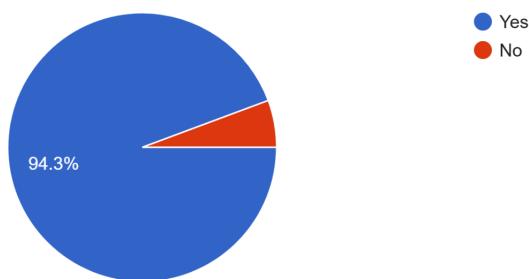


Figure: Questionnaire Analysis Question 9

Analysis	<ul style="list-style-type: none"> • Users wanting clearer navigation - 94.3% • Users satisfied with current navigation - 5.7% <p>Most users wanted a clearer navigation.</p>
Impact	<p>The analysis clearly demonstrates an overwhelming demand (94.3%) for improved website navigation. This directly correlates with the previous UI frustration data and confirms that navigation redesign should be a top priority. The new version should implement a more intuitive and clear navigation bar structure to enhance user experience.</p>

Question 10: What feature would you want in the proposed website?

10. What feature would you want in the proposed website?

53 responses

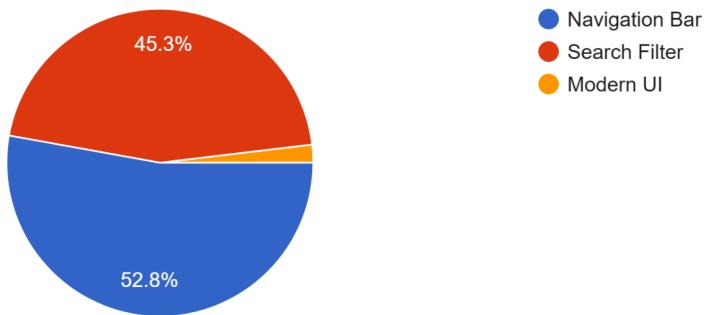


Figure: Questionnaire Analysis Question 10

Analysis	<ul style="list-style-type: none"> • Navigation Bar preference - 52.8% • Search Filter preference - 45.3% • Modern UI preference - 1.9% <p>Almost the same amount of users want a navigation bar and search filter. A small group of users want a modern UI.</p>
Impact	<p>The analysis shows that users strongly prioritize functional improvements, with navigation bar (52.8%) and search filter (45.3%) being the most requested features. For the new website version, implementing both an improved navigation system and advanced search filtering capabilities should be the main development focus, while modern UI appears to be a lower priority for users.</p>

Question 11: Do you suffer from the situation that you are unable to identify the forum topic quickly?

11. Do you suffer from the situation that you are unable to identify the forum topic quickly?
53 responses

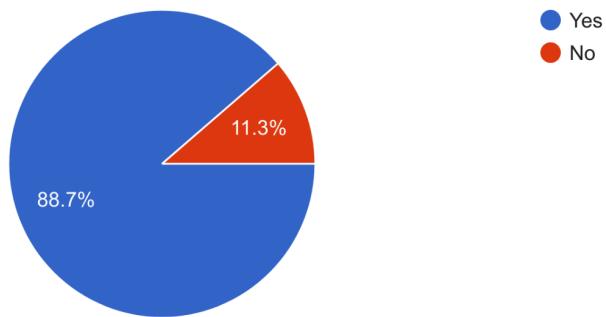


Figure: Questionnaire Analysis Question 11

Analysis	<ul style="list-style-type: none"> • Users having difficulty identifying forum topics - 88.7% • Users without forum topic identification issues - 11.3% <p>Most of the users are having difficulty identifying forum topics quickly.</p>
Impact	<p>The analysis reveals a critical issue with forum topic organization, as a majority (88.7%) of users struggle to quickly identify forum topics. For the new website version, implementing clear topic categorization and improved forum structure that would significantly enhance user experience in the forum section.</p>

Question 12: Would you like to have a separate webpage for the shopping section?

12. Would you like to have a separate webpage for the shopping section?

53 responses

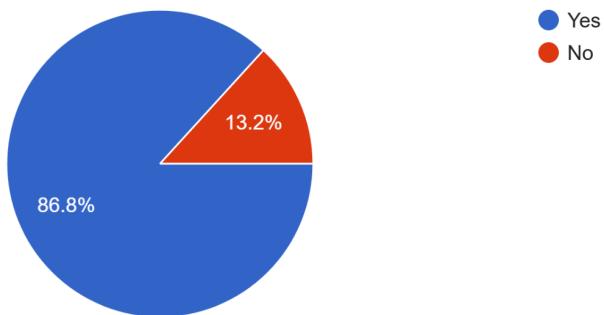


Figure: Questionnaire Analysis Question 12

Analysis	<ul style="list-style-type: none"> Users wanting separate shopping page - 86.8% Users preferring integrated shopping - 13.2% <p>Most of the users wanted to separate the shopping page from the main page.</p>
Impact	<p>The analysis shows strong user preference (86.8%) for a dedicated shopping webpage separate from other features. For the new website version, creating a separate shopping section would improve user experience by providing a more focused and organized shopping environment, while also simplifying the main website's navigation structure.</p>

2.2.4 Details on Ethnographic interviews

Number of Participants	2
Venue	Remote (Video Call)
Medium used	Google Meet
Number of Tasks	1.Viewing "Food" category forum 2.Buying a flower pot in the shopping section

Participant 1

Name	Wong Wei Jun
Age	21
Occupation	Student
1st Task: View and comment in "Food" category forum	<p>Process</p> <p>1.Finding the Forum: The user had trouble finding the forum at first. This suggests the forum link could be easier to spot on the website.</p> <p>2.Finding the "Food" Category: After reaching the forum, the user spent extra time looking for the "Food" section, showing that the categories could be clearer.</p> <p>3.Understanding the Layout: The user needed time to understand how the forum works, including where to type and how to reply. This suggests the website could use clearer instructions or buttons.</p> <p>4.Replying and Logging In: The user clicked "Reply" and was asked to log in. After logging in, he was able to post a comment successfully.</p>
Impact	<p>1.Difficult Navigation: The user struggled to find both the forum and the "Food" category. This could frustrate users and discourage them from engaging with the forum.</p> <p>2.Unclear Layout: The user had trouble understanding where to type and how to reply. Confusion about the layout can lead to wasted time and a negative impression of the forum.</p>

	<p>3.Login Requirement at Reply Stage: Prompting for login only at the reply stage added an extra step.</p> <p>Unexpected login steps may break user flow, causing them to abandon their response</p>
2nd Task: Buying a flower pot in the shopping section	<p>Process</p> <p>1.Navigating to the Category: The user, now more familiar with the interface, quickly located the "Flower & Garden" section within the "For Sale" category.</p> <p>2.Using the Search Bar: The user efficiently found the search bar and typed "flower pot" to narrow down options.</p> <p>3.Selecting a Product: The user easily chose a flower pot of interest, showing improved confidence with the website layout.</p> <p>4.Contacting the Seller: After reviewing the product details, the user realized they needed to email the seller for more information.</p> <p>5.Drafting an Email: The user began drafting an email to the seller, completing the task.</p>
Impact	<p>The user's increased familiarity with the interface made this task smoother. However, the need to email for more details could be inconvenient and potentially slow the purchase process.</p> <p>Impact: The extra step of emailing might discourage quick purchases, possibly reducing sales. Adding a built-in messaging feature or checkout option could streamline the process and improve user satisfaction.</p>

Participant 2

Name	Shoong Ming Xuan
Age	22

Occupation	Student
1st Task: View and comment in "Food" category forum	<p>Process Navigating to the Forum: The user located the forum more quickly than before, indicating growing familiarity with the site layout.</p> <p>Finding the "Food" Category: The user scanned the forum categories but initially overlooked "Food" due to unclear labeling. They eventually used the search function to find it.</p> <p>Understanding the Forum Layout: The user spent less time understanding the forum structure, showing partial familiarity but still experiencing some confusion on where to initiate a comment.</p> <p>Attempting to Comment: The user initially typed their comment in the wrong input box (like a general comment section) before finding the specific "Reply" area.</p> <p>Login and Reply Success: After locating the correct reply section, the user was prompted to log in. They logged in and successfully posted their comment.</p>
Impact	<p>Impact: While the user navigated more quickly, the unclear labeling of categories and multiple comment areas still caused minor confusion. Reducing redundant input areas and making category labels clearer could further enhance user experience.</p>
2nd Task: Buying a flower pot in the shopping section	<p>Process Navigating to the "Flower & Garden" Category: The user confidently accessed the "For Sale" section and found "Flower & Garden" quickly.</p> <p>Searching for a Flower Pot: The user bypassed the search bar and browsed through listings manually, suggesting they either preferred browsing or didn't notice the search feature.</p> <p>Selecting a Product: The user chose a flower pot and reviewed its details but initially thought they could purchase directly.</p> <p>Realizing the Email Requirement: Upon</p>

	<p>attempting to check out, the user realized they needed to contact the seller via email for details, creating a moment of hesitation.</p> <p>Composing an Email: After a brief pause, the user drafted an email inquiry, completing the task but showing some reluctance with the extra step.</p>
Impact	<p>Impact: Although the user efficiently navigated the category, the lack of a direct purchase option led to minor frustration. Providing an integrated messaging or checkout system would likely improve user satisfaction and streamline purchases.</p>

2.3 User Profile Table

Age Group	The average group of the respondent is 18-30
Gender	35 of the respondents are male, 17 of the respondents are female
Nationality	37 of the respondents are Malaysian, 16 of the respondents are Foreigner
Primary Task	27 of the respondents selected Forum 27 of the respondents selected Shopping 16 of the respondents selected Job vacancy 15 of the respondents selected Check for event
Experience on using online forum website	43 out of 53 respondents has experience on using forum
Online shopping frequency	33 of the respondents always shop online 17 of the respondents sometime shop online 3 of the respondents never shop online
Selection between physical stores or online platform	28 of the respondents shop online 25 of the respondents shop in physical stores

2.3.1 List of User Requirement

NO	User Requirements
1	English will be used as the language to cater with the foreign users
2	A complete UI overhaul is necessary to solve users frustration.
3	A more intuitive and clear navigation bar structure should be implemented to enhance user experience.
4	An improved navigation system and advanced search filtering capabilities should be implemented.
5	Implementing clear topic categorization and improved forum structure that would significantly enhance user experience.
6	Creating a separate shopping section would improve user experience by providing a more focused and organized shopping environment.

2.4 Hierarchical Task Analysis

2.4.1 Textual Representation for creating a job posting

0. Creating a job posting
 1. Open the browser
 2. Enter the URL <https://malaysia.craigslist.org/>
 3. Main page display
 4. Click on “post an ad”
 5. Select detail of posting
 - 5.1 Select type of posting
 - 5.2 Select category of posting
 6. Insert Posting Detail
 - 6.1 Posting Title
 - 6.2 Description
 - 6.3 Employment type
 - 6.4 Job Title
 - 6.5 Company name
 - 6.6 Email
 - 6.7 Include a image
 7. View unpublished draft
 - 7.1 edit draft
 8. Click publish
 9. Verify through email
 10. Insert Account Detail
 - 10.1 Insert Password

11. Accept Terms and Condition

Plan 0: Skip 10 and 11 if the user have already logged in

Plan 6: do 6.1 to 6.7 in any order that the user preferred

Plan 7: Skip 7.1 if the user is satisfy on the draft

Plan 9: If 9 fails, repeat 9.

Plan 10: Repeat 10.1 if the password is entered wrongly

Matrix

Task and Sub Task	Critically	Difficulty	Frequency
Open the browser	H	L	H
Enter the URL https://malaysia.craigslist.org/	H	L	H
Main page display	H	L	H
Click on “post an ad”	H	L	H
Select detail of posting	H	M	H
Select type of posting	H	M	H
Select category of posting	H	M	H
Insert Posting Detail	H	M	H
Posting Title	H	M	H
Description	H	M	H
Employment type	H	M	H
Job Title	H	M	H
Company name	H	M	H
Email	H	M	H
Include a image	M	M	H
View unpublished draft	M	H	H
edit draft	M	H	H
Click publish	H	L	H
Verify through email	H	H	H

Insert Account Detail	H	M	H
Insert Password	H	M	H
Accept Terms and Condition	H	M	H

Analysis:

From the observation towards the user action in performing the activities above:

- An issue faced by the user is there is no validation on the company name text field. This may lead to inserting a not complete company name which may be a duplicate name of another company. This may confuse the job seekers and mislead them to have the wrong understanding of the company.
- Another issue faced by the user is there is no text field for inserting workplace type. Many users may forget this description. The job seekers might assume it is an on site job but it may be different for the user and cause misleading.

Impact:

- A validation should be added for the company name text field.

When the user is using the new proposed interface the user should be able to select the company that is valid.

- A combo box about workplace type should be added in the Job Description Part.

When the user is using the new proposed interface the user will be able to select the workplace type such as, on site, hybrid and remote. This will reduce the misleading information and provide a more clear experience.

2.4.2 Textual Representation for Buying an item

0.Buying an item

- 1.Open the browser
- 2.Enter the URL <https://malaysia.craigslist.org/>
- 3.Main page display
- 4.Select For Sale Category
- 5.Search Item
- 6.Select Item
- 7.Check Item Description
- 8.Check Location
- 9.Reply email to Seller

10. Pay the Seller

Plan 7: If the item does not met user requirement, repeat 6

Plan 8: If the item location does not met user requirement , repeat 6

Plan 9:If the seller did not reply, repeat 6.

Matrix

Task and Sub Task	Critically	Difficulty	Frequency
Open the browser	H	L	H
Enter the URL https://malaysia.craigslist.org/	H	L	H
Main page display	H	L	H
Select For Sale Category	H	L	H
Search Item	H	L	H
Select Item	H	L	H
Check Item Description	H	M	H
Check Location	H	M	H
Reply email to Seller	H	H	H
Pay the Seller	H	H	H

Analysis:

From the observation towards the user action in performing the activities above:

- A big issue faced by the user is the user has to wait for the seller to reply to his email for buying an item. This might cause manual process bottlenecks. The reason for this is the seller is not free for 24/7, the seller might not be able to reply back instantly. The user has to wait for the seller, which brings a very poor experience.
- Another issue faced by the user is the user has to switch to a different website to contact the buyer. This is an action of context switching. This will disrupt the flow and add difficulty to the task. This may lead to users being frustrated and increase the chances of task abandonment.

Impact:

- The process of stock checking and reserving items for the seller should be pre-enter. Once these two info is being checked, it will save time and give the user a fast experience.
- A messaging program should be added. When the user are using the new proposed interface the user will be able to communicate to the seller directly.

Stage 2: Usability Goal

3.1 Identifying Usability goals

The main objective of the second stage of the usability engineering lifecycle is to ensure that usability goals are defined to set the User Interface of the proposed Craigslist platform. The only important things that need to be defined here are the goals for user interface that would bring maximum benefit to the user. Usability objectives for a website like craigslist could extend to areas like, increasing the learnability of the site, making the site easily accessible to as many users as possible and reducing the incidence of errors that users are likely to make while using the site. Such objectives should be met concordantly with the practical features of the platform and the demands of various audiences. Defining these usability objectives systematically sets the groundwork for the process of designing and assessing the user interface in future to meet the usability requirements most suit the user's expectations.

3.1.1 Learnability

Learnability is important because new users should be able to start using the interface immediately they log in without spending a considerable time to learn it, especially for a readily accessible site like a public institution website. The users ought to be in a position to find and understand how to use the different aspects of the interface in an uncomplicated manner without having to learn different procedures and ways of using the interface. For instance, the main graphical control elements such as the navigation bar that is based on the user's intuition as well as other familiar icons improve learnability because users can easily orient themselves with the layout and functions of the interface. High learnability also conversely reduces the time which is used by the users to master the system and hence their first impression of the system will be positive. In stage 1 we know that some of the users do not have experience on using online forums and some users never shop online. Thus, it makes this usability goal important.

3.1.2 Memorability

This one has its importance to users who may hardly use the app or site since they may not remember pretty easily. It should be easy for them to return to the system after some time and easily know how to work it again without being reminded of the system interface. Intrinsic attributes such as application icons, the flow of the layout, and basic learning actions are memorable, making it easy for users to recall the existence of the functions or the paths. A good design entails a memorable user interface design where users do not require going through fundamental procedures repeatedly thus enhancing its usage and overall user experiences.

The analysis given in stage 1 states that a portion of the users shop online sometime and some users prefer to shop in physical stores. This action may cause them to forget the system flow.

3.1.3 Error Prevention

An important factor to reduce the usability and increase the dependability of the UI is preventing errors. Through affordances, constraints as well as feedback mechanisms, the system directs the user making and preventing errors in an undertaking. For example, before deleting content, possible confirmation prompts or providing tooltips on how to handle some actions reduce errors made by the user. It is especially important to avoid mistakes which may lead to dissatisfaction with the interface or loss of data if the interface is used to complete complex tasks such as form or payment submission. Since some of the users do not have any experience on using online forums or shopping, this usability goal is important.

3.2 Design Principles Mapping with The Usability Goals

3.2.1 Design Guidelines with Learnability

Learnability is a must-have feature, as new users should quickly use the interface without having to invest an excessive amount of time learning. Public or widely-accessible interfaces, e.g. a government or institution website, should not require extra steps to understand when users need to quickly learn how to engage with the site's features.

3.2.1.1 Design Guidelines for Learnability

Visibility

Making core functions visible and easily recognizable will assist the new user in navigating around the interface correctly. Highlight the navigation bar, buttons or interactive elements so users can easily find and reach important sections of the application. When design emphasizes visibility and accessibility, users can explore all features possible without confusion or the need for onboarding, creating a smoother experience. This supports ease of use and motivates new users to utilize the full capabilities of an application from the beginning. For example, the figure below shows on amazon, Search bar and main navigation links(search bar is very easy to find at amazon homepage for example) "Today Deals" "Customer Service". The navigation is designed in such a way that new users can start browsing or

searching for products immediately with not additional guidance.



Figure : Example of visibility for learnability

Affordances

The concept of affordances in design helps ensure an intuitive understanding of how to interact with different elements. Visual Cues reduce the cognitive load by providing a signal whether or not it is functional. To illustrate, make sure that buttons are created to appear like they can be clicked upon, using shapes or shadows and colors which will activate a press on users. Likewise, scroll bars should be visually drag-able, feel like they have a surface or something that tells users the next visibly hidden thing is only scroll away. These affordances guarantee that users will be able to immediately see how each element serves them without having too many instructions. For example, interactive elements like the Connect button and Message icons are clear, clickable, highly communicative in their function (ex. On LinkedIn). The button to connect with someone is unique, it looks like something you can click. This aids new users in knowing how to go about connecting because everything else has a different look.



Figure: Example of Affordances for Learnability

Consistency

Consistency is just as important when it comes to achieving concise and coherent outcomes within user-experience. Making the interface more intuitive involves relating them to other common website design standards thus applying familiar symbols and patterns and general conventions. I also found that having icons and colors always in the same place and layout reduces complexity since users can easily pick recognizable patterns from real life. Frequent users can easily move through the interface when they meet features, for instance, a common URL search icon, familiar color indicators that signify that a button is for confirmation or cancellation or familiar location of the navigation bars. Not only does this make it easier to use the application because a user can expect a similar way of working across the sections of the application, but there is also a certain level of confidence established in the behavior of the interface. For instance, no matter the folder where Google Drive users are located, the appearance and organization of the file organization page do not change. Most icons related to document type and actions such as sharing and deleting are easily recognizable because Google Drive chronologically provides icons that are familiar to all.

users.

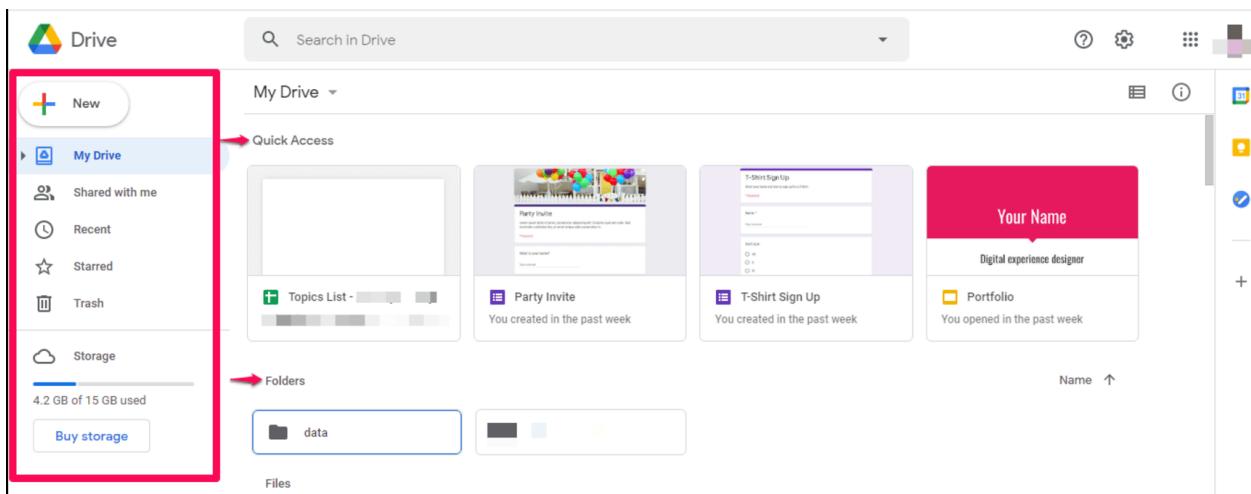


Figure: Example for consistency for Learnability

3.2.2 Design Guidelines with Memorability

For customers who are not often exposed to the system, the creation of memorable experiences matters. The kind of interface that the users have to be designed in a way that they don't forget where they left off the next time they have to use it hence not requiring to be trained all over again.

3.2.2.1 Design Guidelines for Memorability

Mapping

Accurate sequences and organization of information is for users to follow if the information design and user interface should pave the way for smooth navigation and ease of finding required information. Since similar actions are presented in the same area and clustered by their nature, for example account settings or users preferences, a user easily can look for the desired feature and remember its location. Continual positioning of typical action labels such as 'Save,' 'Edit' or 'Cancel' at similar positions also supports this same familiarity. I see visual hierarchies that present primary actions also guide users seamlessly through tasks and achieve actions successfully. Such sections make course organization easier since the user can easily find what he or she is looking for. For instance, principal categories are 'Stays', 'Experiences', and 'Online Experiences' on Airbnb; they are neatly aligned with the header section that doesn't change across different pages of the website. This organization assists users in remembering where to look for each option even where the latter is not frequently used on the site.

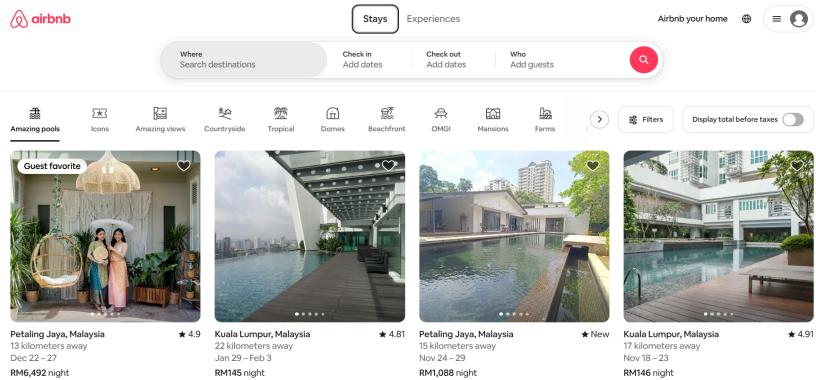


Figure: Example for Mapping for Memorability

Consistency

If the application design is consistent, users are able to remember how to perform tasks throughout the application. People's familiarity with a design he or she is most comfortable with such as color blending and position of such icons as the cart icon for shopping, the envelope icon for messages etc. For instance, every video in YouTube has a comments section, recommended videos section, and the like button in similar positions in every page of the video, thus where users can easily find them when they are navigating through different videos or when returning back to use the earlier interaction points.



Figure: Example for consistency for Memorability

Feedback

Tells the customer what he did or asked for clearly and repeats how the system works to enhance memory. For instance, while a user moves the cursor over a button, they might become colored or a gray pop up might appear right beside saying, 'this is a button.' For example, on Dropbox applications after uploading a file, users get unlimited access to a file immediately with an upload progress bar and a message stating

that the file has been successfully uploaded. Such feedback simply reminds the users that their action was successful and can easily be repeated by them in future.

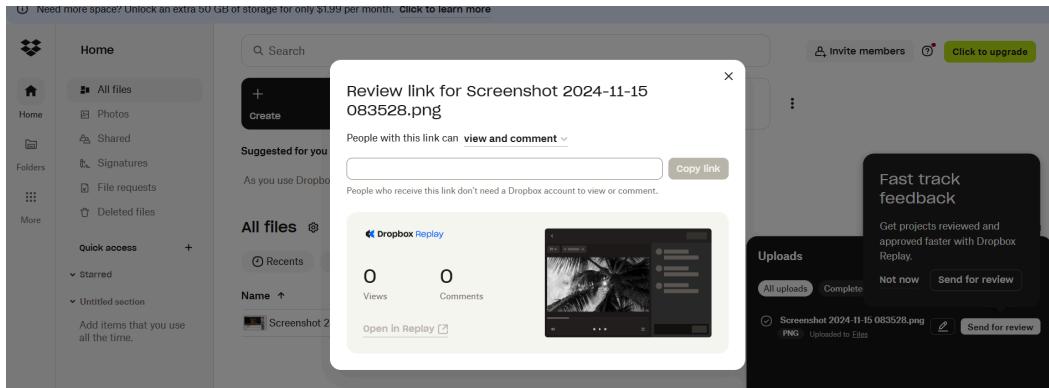


Figure: Example for Feedback for Memorability

3.2.3 Design Guidelines with Error Prevention

Minimizing errors is paramount for they deny users confidence in operating the interface. Thus, it takes another step towards becoming more reliable, and more importantly, user-oriented, when it comes to dealing with urgent matters like form submission or payment, for instance.

3.2.3.1 Design Guidelines for Error Prevention

Constraints

Preventing actions means that some functions are disabled for a user and can be used only in case some conditions are met. For instance, obscuring the submission buttons till all relevant fields have been completed is helpful since it genuinely leads the user through the right channel in the process thus minimizing cases where people fill the forms wrong. This eliminates the making of wrong decisions while at the same time incorporation of indicators that make the next phases more understandable. Only allowing the options that have been previously input would lead the user through a trouble-free process of getting the job done with little chance to get frustrated in mid-process. For example, on Facebook creating a new event, it is possible to create date and time fields which are limited to putting the past date. This constraint assists the users to be punctual in any schedules so that they do not plan for other events during the same or similar schedule.

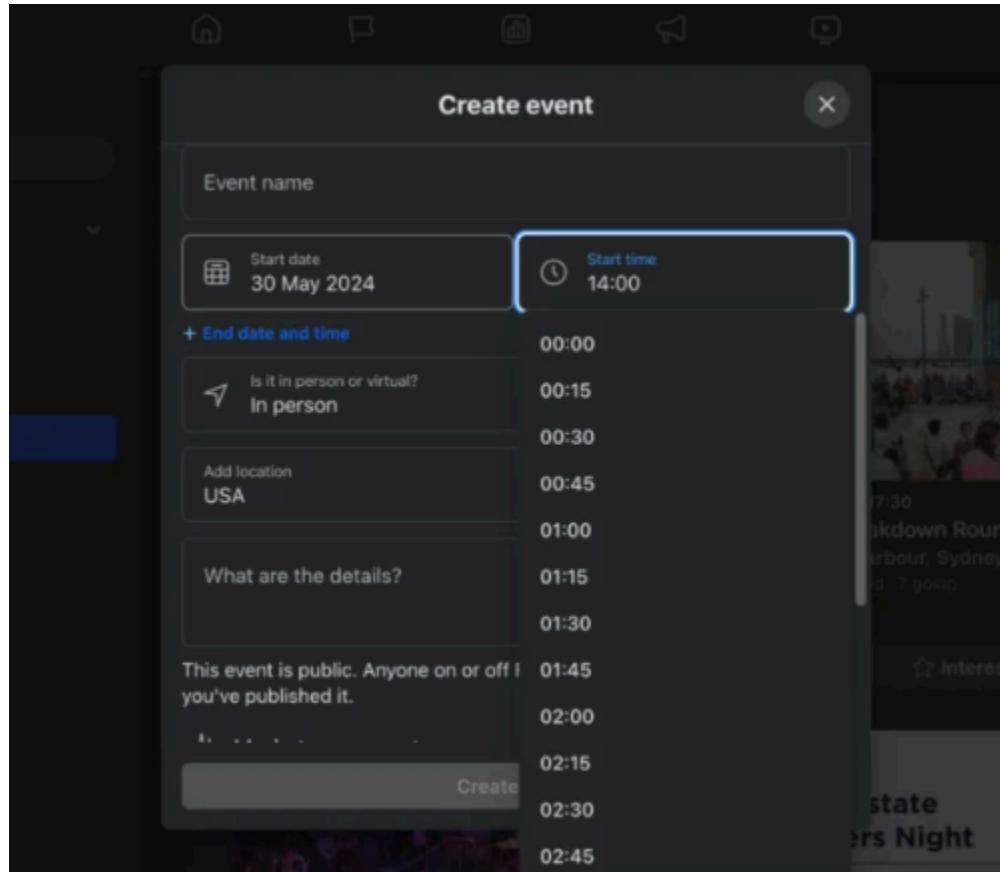


Figure: Example for Constraints for Error Prevention

Feedback

Using confirmations or alerts as feedback responses makes the user interface more interactive, reduces confusion by providing finality of actions. For instance, putting up a message that informs a user when they want to delete an item saves them from deleting the particular item accidentally. Just like displaying a success message after completion of a form ensures that the data submitted by the user has been parsed correctly. It also removes or greatly reduces the chance of making mistakes because the user is always aware of the state of their actions and knows when tasks are done correctly. For instance, consider Gmail interface where if a user attempts to send an email with the subject line missing out then the system gives a pop up warning of do you want to send it with no subject line and so forth. This feedback gives the chance for the users to correct possible mistakes before sending the e-mail.

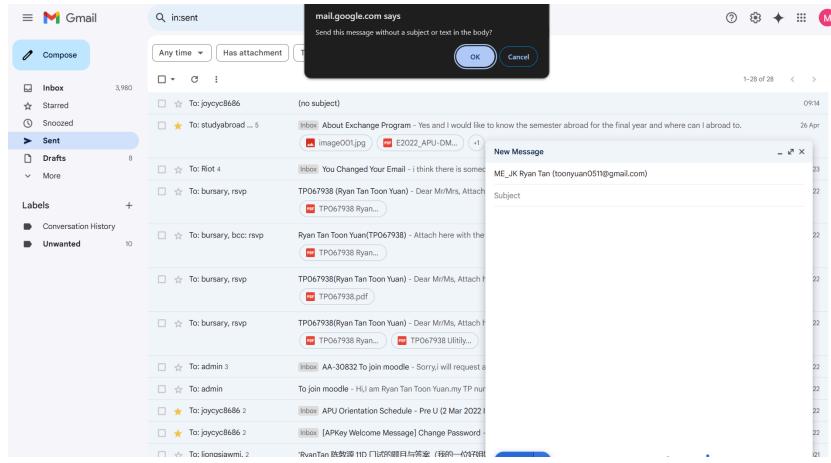


Figure: Example for Feedback for Error Prevention

Affordances

Therefore, accessibility should always dictate design: interactions should be as distinct as possible so that a user knows what to do when he or she encounters one. For example, the label on a “Submit” button has to look different from a “Cancel” button and this can be achieved through opposite colors or shapes or sizes etc. This approach enables the user to easily see the action he or she wants to take and minimize on cases where we cancel or execute an unwanted action. When designing those objects the authors have to orient on simple, easily understandable signals which can help a user understand the system's intention and make conclusions with no bridging mistakes into the process. For instance when using Slack, the ‘+’ button next to channel names and users profile give the impression that new channels or contacts can be added. This can be so mainly because the design of the icon suggests to the user that it has to be clicked in order to make the next step, thus removing any confusion regarding where to add items.

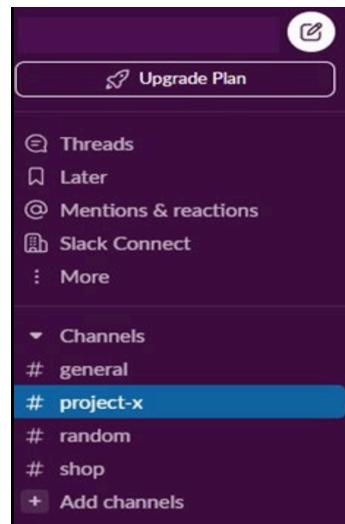


Figure: Example for Affordances for Error Prevention

3.3 Competitive Analysis

Criteria	Craigslist	Ebay	Jobstreet
User Interface Design	Spartan and utilitarian, however very old fashion, and does not elicit, visual, quality or luxury appeal.	Polished, friendly, attractive with format, icons and colors.	Easy to navigate for the candidates, friendly interface, well-structured and intensive use of visuals.
Search Functionality	Limited search capabilities with little ability to narrow search; results may be difficult for a user to identify.	Filters; useful for the identification of products by their price range, type or geographical location.	Strong Boolean search options (job type, location, industry); cost-effective for the candidate.
Responsiveness	Standard results on the desktop and relatively unsatisfying experience on the mobile version.	Very fast on all devices; smooth transitions and easy to navigate.	Responsive design, but sometimes it slows down the website on mobile devices, creating not very comfortable conditions for the user.
User Engagement	Small quantity of interactive options; no chat, customer support, or any other functional elements.	Interactive elements (text chat, customer support, and custom interfaces to the analytics dashboard).	Increased engagement with the site comes with job alerts, application tracking and users' profile.
Accessibility	Very limited; does not provide such conveniences like screen reader for the Blind.	Integration with subpictures, texts on images, clear and contrasting fonts, and color contrast.	Platform accessibility, compatible with multiple forms of disability help.

3.3.1 Impact

The competitive analysis activities identify critical data factors that can inform strategic action plan enhancements and proper positioning of the platform. Analyzing Craigslist, Ebay, and Jobstreet websites, we have found that there are many areas in their design and functionality in which they can be differentiated from each other showing us where we are able to improve the design to better serve our users. For example, ebay's neat and clean design and easy flow make me realize how crucial good looks and usability is, leading us to identify how we should focus on making the user experience as comfortable as possible to retain customers (Drummond et al., 2020). The restricted search capabilities seen on Craigslist are fewer than on Jobstreet, where certain Boolean search functions are employed; hence, using advanced filters promoting convenience in observing specific information among users. Furthermore, in comparison to Ebay and Jobstreet with their extensive interactive tools, Craigslist has no such options,

and thus we thought of introducing the notification service, the production of personalized content, and other similar benefits to stimulate the activity of users, which, in turn, is one of the main indicators for further activity among users (Drummond et al., 2020).

To sum up, the knowledge acquired through competitive analysis will be applied for key design decisions, improve user experience on the platform, and strengthen the position of the platform in the targeted niche since the proposed recommendations align with the practices of market competitors and eliminate the identified shortcomings. These findings also meet academic goals, providing a sound framework for analyzing cases or proposals that focus on practical uses and purposeful design.

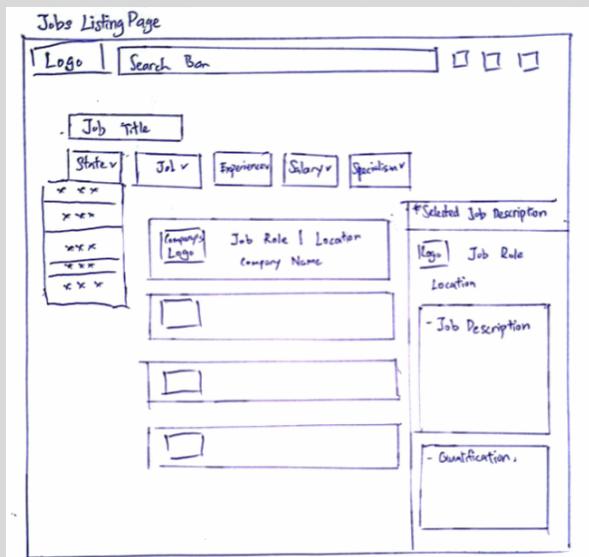
Stage 3 : Design and Prototype

4.1 Parallel Designs

Parallel Design 1 - Ooi Yin Yao

Main Page

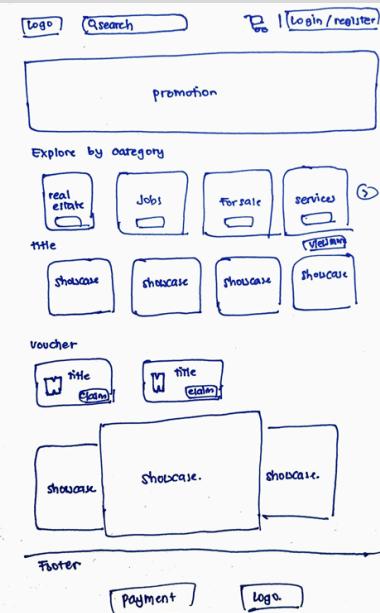
Job Page



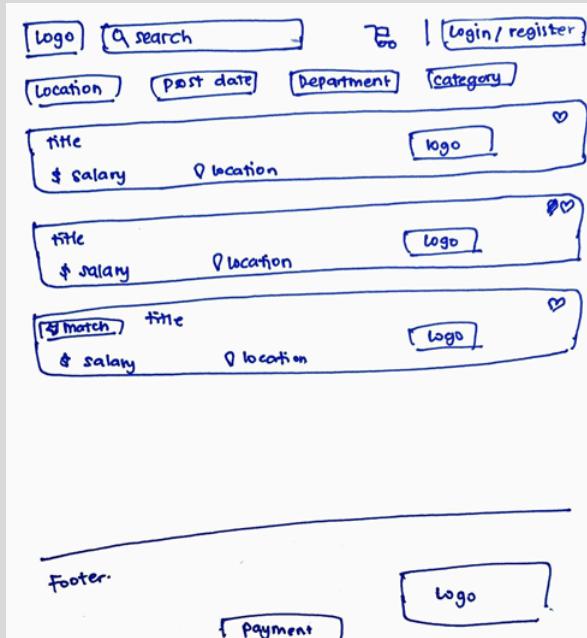
Visibility	<ul style="list-style-type: none"> On the main page, the navigation is on the left, and the content is on the right making it easy for users to go straight to the shopping section. On the job page, the job selection is placed in the center, so user can view it smoothly and easily. This aligns with the concept of visibility, as important elements are clearly visible allowing users to understand the layout and navigate easily.
Constraints	<ul style="list-style-type: none"> The job page is kept very simple, with the filter at the top and job listings in the middle to reduce user mistakes. Only a few functions are available on the job page to keep the design clear and easy to use. This reflects the idea of constraints by limiting user actions and keeping the interface straightforward, which help prevent errors.
Mapping	<ul style="list-style-type: none"> On the main page, clicking the “more” button moves the content to the left, and new content appears on the right, matching the direction of the arrow. On the job page, when a filter is selected, the options appear below the button, following the direction of the downward arrow, so users know where to expect the options. This follow the concept of mapping, as the movement of the content and the button’s direction are logically connected, making the action easy to understand.

Parallel Design 2 - Angelina Leanore

Main Page



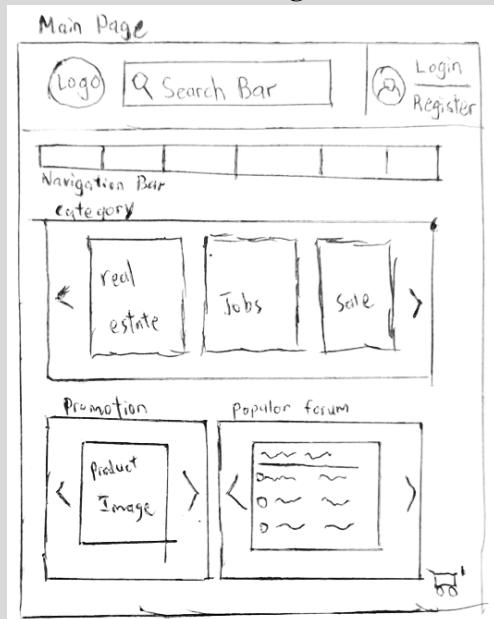
Job Page



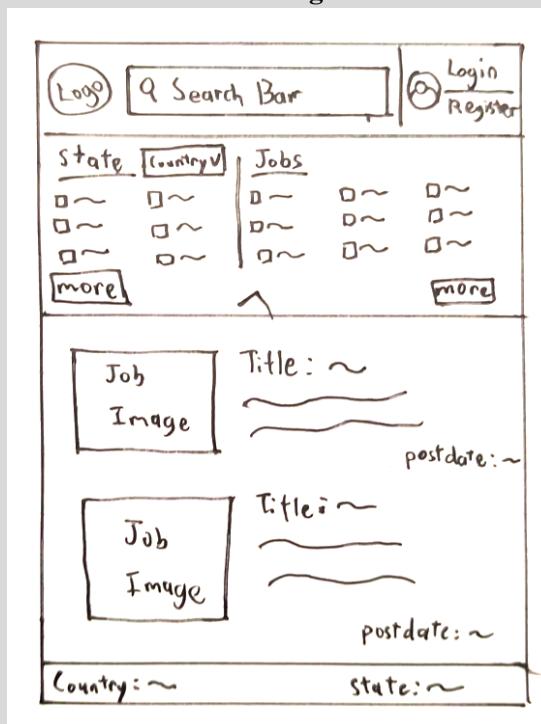
Visibility	<ul style="list-style-type: none"> The search bar is easily located and accessible, positioned at the top hence adopting the user's view. Standard operating procedure suggests that the login/register option found on the upper right corner of the page is where users expect to find it. The sketch of Main page and Job page present filters such as "Location," "Post Date", or "Department" and "Category" in a prominent position for easy search improvement for the users. Each job listing includes important items i.e title, salary, location, and logo where users can easily get the major details of every job posting.
Consistency	<ul style="list-style-type: none"> The elements such as search bar, a login/register, and a shopping cart icon are similarly placed on both pages, thus creating consistency in the interface across the pages. On the home page sections such as Real Estate, Jobs, and For Sale are displayed in one pattern design, engendering design consistency enabling users to navigate quickly. Both pages contain the payment and the logo sections at the footer thereby creating a similar pattern at the bottom of both pages.
Mapping	<ul style="list-style-type: none"> On the job page, the filters are right above the job listings to show that they are responsible for the jobs displayed below.. On the home page, category headers such as "Real Estate" and "Jobs" have a corresponding display option of what to choose next, allowing for an easy cognitive mapping of choices to the content. The promotion banner is likely to capture the attention of the users and is displayed on the top part of the main page as the user interface indicates its significance and makes them want to interact with the banner instantly.
Affordance	<ul style="list-style-type: none"> The heart icons placed on the job listing page suggest an option to like or favorite a particular posting in order to aim at encouraging user interactions. The main page, offers a showcase boxes which appear to be clickable informing the users that they will be able to interact with each category or listing. The search bar and the filters design indicates to the users type or select something as therefore boosting usability.

Parallel Design 3: Ryan Tan Toon Yuan

Main Page



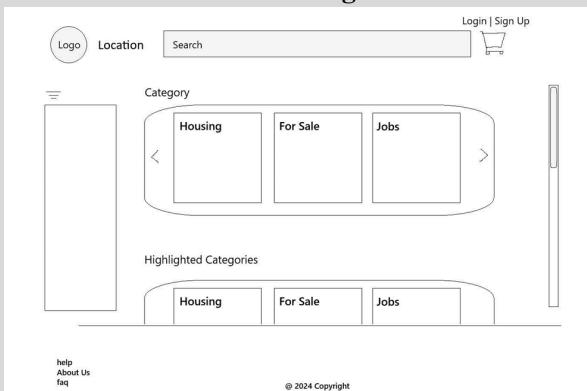
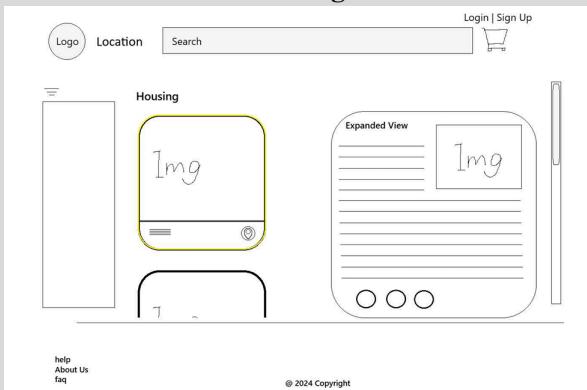
Job Page



Visibility

- The header has the logo, search bar, and login/register buttons, and is not only reachable but easily identifiable.

	<ul style="list-style-type: none"> The filters that apply to state and country on the job listing page are visible, enabling users to narrow down their search. The inclusion of arrows on category and promotion sections on the home page helps greatly in navigation.
Feedback	<ul style="list-style-type: none"> The search bar provides an instant response in terms of displaying the correct outcomes as the user continues making any input in the search box. Upon applying a filter, changes are made in the job listings and in the animated transition to emphasize the changing search parameters. Since, while clicking on a button or link, an action is expected from the user. Simply put the page load, new content appearing in the same position, or loading a modal window with a message should follow almost immediately
Consistency	<ul style="list-style-type: none"> The major page and the job listing page also share the same structure of header, content section, and footer. Elements navigation such as the search bar and login/register buttons are in the same order in both pages. Adhering to the similar basic structure, typography and color scheme incorporated in the website enhances the overall presented aspects.

Parallel Design 4 : Lee De Xian	
Main Page	
	
Job Page	
	
Visibility	<ul style="list-style-type: none"> The job category labels are attractive and understandable. Arrangement of information and use of graphical elements such as the font sizes, colors, and space makes it possible for the target audience to differentiate the key components. Interaction with the search bar, login/sign up buttons and the cart icon, for instance, cause changes in their appearance.
Affordance	<ul style="list-style-type: none"> Each button and the links on the page are styled like they look as if they are looking clickable which indicates their purpose. There is no fuss about how to operate the layout and navigation as attention is directed at the page and users are ‘led’ within it without any directions. The elements of interface include those common design patterns; hence the users of the system do not experience trouble in using them.
Consistency	<ul style="list-style-type: none"> The presence of many types of typography at the same site, different colors and spacing appears very unprofessional to the benefits. Navigation menus and footers remain the same for all pages which enhances the ease of movement within the site by the users.

	<ul style="list-style-type: none"> The interaction patterns that involve buttons and links clicking are observed uniformly on all webpages of the site.
--	--

PEER TO PEER REVIEW

Aspect	Criteria for evaluation	Rating (1-5)		
		Reviewer 1	Reviewer 2	Reviewer 3
Overall Design	Clarity, consistency, and aesthetics of the interface	2	4	3
Navigation	Ease of navigation, clear hierarchy, and intuitive pathways	4	4	3
Layout	Well-organized placement of elements and content	5	5	4
Color Scheme	Effective use of colors, readability, and visual appeal	NA	NA	NA
Typography	Font choices, readability, and text hierarchy	NA	NA	NA
Interactive elements	Responsiveness of buttons, links, and other interactive elements	3	2	3
Visual Feedback	Clear indication of user actions and system responses	NA	NA	NA
Consistency	Consistent design patterns across different sections/pages	5	5	5
Accessibility	Inclusive design, adherence to accessibility standards	3	3	4

User Flow	Smooth and logical progression through different screen/pages	3	5	4
Form Design	Clarity of forms, input fields and validation	3	4	4
Loading Times	Efficient loading times for pages and multimedia elements	NA	NA	NA
Error Handling	Clarity and helpfulness of error messages and recovery options	NA	NA	NA

4.1.1 Peer to peer evaluation

Based on the peer to peer grading as well as the analysis of the features of each of the designs, I found Parallel Design 3 to be the best option. This design is highly readable and visible, which are considered important aspects of usability. The header, which comprises the logo, the search box, and the login/register buttons, is designed in such a manner that it is within reach and easy to see where the user can find significant features. The emphasis on visibility works well with usability concepts that promote simple and easy use of the interface through easy navigation.

The provision of responsive feedback is one of the features that stand out in this design. As a case in point, the search bar provides results as a user types, producing orders fast enough to avert irritation that would work against the user experience in general. Since the user is not required to waste time waiting between screen transitions, this type of feedback encourages users to actively interact with the system, which is an important feature when designing the system to promote positive user interaction.

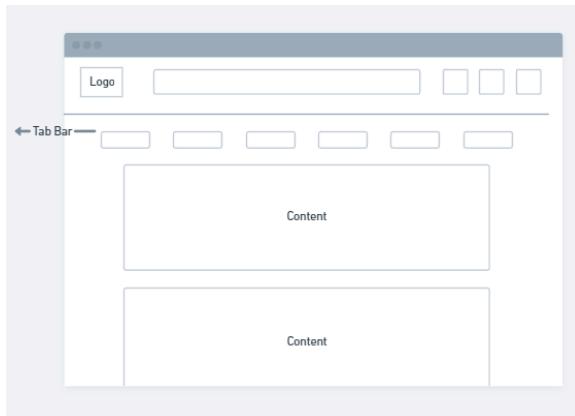
In addition, this design is notable in the sense that there is a great degree of uniformity within the pages, where there is proper arrangement of the header, the content and the footer. This aids in navigating the interface as it familiarizes the user with the different parts of the interface even when they are in different sections. Such a design provides a structure that is expected by the users, thus creating a pleasant browsing experience.

In comparison, the organization of Parallel Design 1 has the simplest structure and navigation including on the job page. Although user rated lower the overall clarity of the design, this may be linked to the overly simple design which seemed to lack engagement and interaction compared to Design 3. On the other hand, Parallel Design 4 had its positive features, such as job categories which were easy to identify and engaging designs. Nevertheless, the design had poor layout due to the random use of typing, colors, and even spacing which made it look less professional hence, making the interface somewhat rough and possibly disorienting for individuals using the site.

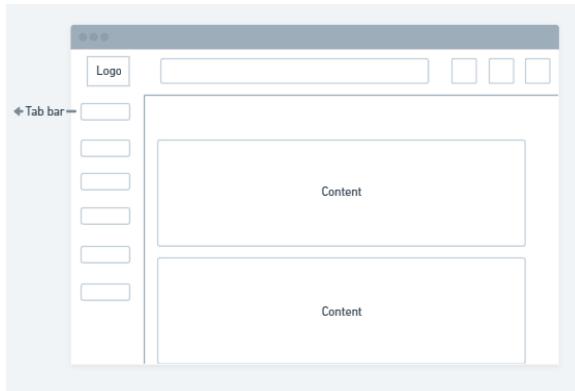
4.2 Participatory Design - Card Sorting

4.2.1 Layout

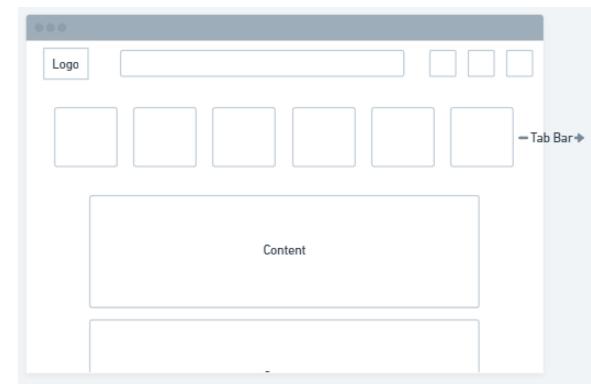
Option A



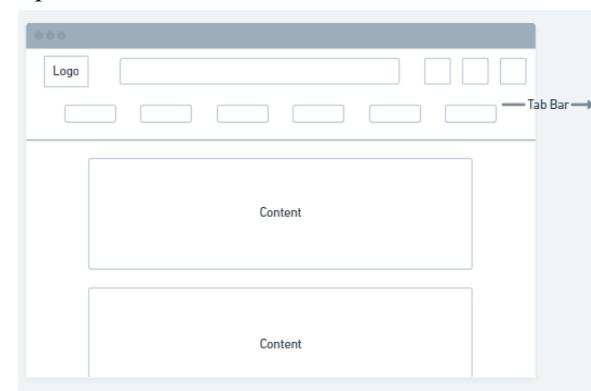
Option B



Option C



Option D



4.2.1.1 Evaluation of Layout Design

The spatial arrangement of elements inside the application is a major contributing aspect in user's choice. To solicit their layout design preferences, 20 random individuals will be selected. They will be shown four layout styles for their assessment, and the results will be presented in the table which follows.

Layout Design Option	A	B	C	D
Number of Participants	6	2	2	10

4.2.1.2 Impact of Layout Design

The analysis of layout preferences revealed that Option D was preferred by 10 out of 20 respondents, making it the most widely accepted layout design structure. The backbone of this layout design squarely rests on its well-defined arrangement that encourages the seamless flow of information in an orderly as well as a structured manner, aiding easy navigation for the intended user. Due to the suppression of user expectations regarding a logical layout, layout D is claimed to be the best for positive users' experience. Hence, it was adopted as the final layout of the design because of its clarity in representation and structure that uncomplicated navigation.

4.2.2 Font

Option A

Headings	Roboto, 38
Sub-headings	Roboto, 20
Body	Roboto, 18

Option B

Headings	Nunito, 38
Sub-headings	Nunito, 20
Body	Nunito, 18

Option C

Headings	Montagu Slab, 38
Sub-headings	Montagu Slab, 20

Body	Montagu Slab, 18
------	-------------------------

Option D

Headings	Aleo, 38
Sub-headings	Aleo, 20
Body	Aleo, 18

4.2.2.1 Evaluation of Font Design

Type design directly relates to the ease of reading and user experience in the given application. In order to understand user's attitude towards font, twenty random individuals will be confronted with several options within the application. Four font styles will be used, the preferences of the subjects will be captured. The outcomes are presented in the table below.

Layout Design Option	A	B	C	D
Number of Participants	6	5	5	4

4.2.2.2 Impact of Font Design

In terms of font design, opinions of the participants slightly favored Option A while 6 out of 20 chose it, although Option B and C were also remarkable. The significance of Option A high rate is that this is the font preferably volute even for heads, subheads and texts. In addition to improving text eligibility throughout the interface, Option A also enables the reader to engage with content through the interface, Option A also enables the reader to engage with content through the establishment of a clear hierarchy of information. For this reason, Option A has been adopted as the final font design owing to its fits between tubers attractiveness and usability in ensuring a better user experience and interaction.

4.2.3 Color Palette

Option A

#80CED7	
---------	---

A134DE	
#113537	

Option B

A134DE	
E772FE	
8A34BE	

Option C

FF5964	
23022E	
8A34BE	

Option D

043565	
8A34BE	
79C99E	

4.2.3.1 Evaluation of Color Palette's Composition

The color palette is one of the major components that enhances the app and encourages users. A sample of 20 random people will give their preferences for the color combinations applied to the application in the different sections. Respondents will be shown four color schemes and asked which one they like best. The results are displayed in the table below.

Layout Design Option	A	B	C	D
Number of Participants	4	15	0	1

4.2.3.2 Impact of Color Palette Design

The evaluation of the color palette demonstrated that Option B was the only one chosen by the vast majority, that is, 15 out of 20 people did better than other options considered. The likely reason for this preference is the color combination that can be easily read and an overall appearance that invites one in. Colors change how one views the system and hence its primary purpose which is imprinted in the design

of Option B seems to respect beauty in the enhanced functionality in the design. Consequently option B was consolidated as the new color palette in order to embrace all expectations of the users by creating a warm and user friendly interface.

4.2.4 Menu Placement



4.2.4.1 Evaluation of Menu Placement Design

The menu arrangement are important factors that determine how easily a user can navigate through an application. In this regard, to more fully comprehend the user's needs and preferences, twenty randomly selected individuals will be asked to appraise the design of four menu arranged in different ways.

Participants will choose one of the menu designs shown. The table below shows the compiled results

Layout Design Option	A	B	C	D
Number of Participants	2	5	8	5

4.2.4.2 Impact of Menu Placement Design

A menu placement design, Option C who of all presented to participants was chosen the most which was ranked 8 worth participants 20, others however did not lag far behind. The popularity of Option C suggests that this arrangement facilitates easy interaction and navigation and therefore the user is able to find and open different parts of the interface very quickly. This design strategy encourages users to expend less effort completing a task with a clear and logical hierarchy in the menu structure. Therefore, option C will be used for the final menu placement as it provides ease of navigation that is compatible with the user requirements and improves overall usability of the interface.

4.2.5 Card Sorting - Optimal sort

Card sorting is one of the most common approaches used that helps in determining how the subjects categorise knowledge. In this technique participants a set of cards each of which contains a specific piece

of information arranged into groupings that are depicted as the mental models of the participants. Using card sorting should greatly improve the information architecture (IA) design of websites through improved understandings of how content should be organized(Mammen, Norton, Rhee, & Butz, 2016).

1. Determining the study details

The screenshot shows a card sorting tool interface for Craigslist. At the top, there's a dark header with the Craigslist logo and a navigation bar with tabs: Details (which is active), Setup, Recruit, and Results. Below the header, the title "Study details" is displayed, followed by a sub-instruction: "Enter contextual information here before you launch your study. Participants will not see this information." Under the "Purpose" section, there's a text area containing: "addressing issues related to navigation, visual clarity, and overall usability. Craigslist's current design, while functional, may lack modern features that improve ease of use, aesthetic appeal, and efficient task completion for users. The redesign aims to streamline processes such as job posting, item searching, and transaction handling, ultimately making the platform more user-friendly and accessible." Below this, under "Participant requirements", it says: "We need 20 participants who meet the following requirements: Between the ages of 18 - 60 Familiar with online marketplace platforms or similar websites Ideally an even split of desktop users". There are "Edit" and "Preview" buttons at the top right of each section.

Figure: Card Sorting Execution Detail

2. Listing All The Possible Cards

Cards ①	<input type="button" value="Import"/> <input type="button" value="Export"/> <input type="button" value="Delete all"/>
Card label	
⋮ Buy	<input type="button" value="Delete"/>
⋮ Rent	<input type="button" value="Delete"/>
⋮ Sell	<input type="button" value="Delete"/>
⋮ Accounting/Finance	<input type="button" value="Delete"/>
⋮ Admin/Office	<input type="button" value="Delete"/>
⋮ Art/Media/Design	<input type="button" value="Delete"/>
⋮ Business/Management	<input type="button" value="Delete"/>
⋮ Construction/Labor	<input type="button" value="Delete"/>
⋮ Customer Service	<input type="button" value="Delete"/>
⋮ Education/Teaching	<input type="button" value="Delete"/>
⋮ Engineering/Architecture	<input type="button" value="Delete"/>
⋮ Healthcare	<input type="button" value="Delete"/>
⋮ IT/Software Development	<input type="button" value="Delete"/>
⋮ Legal	<input type="button" value="Delete"/>

Figure: Cards for Card Sorting 1

⋮ Marketing/PR/Advertising	<input type="button" value="Delete"/>
⋮ Retail/Sales	<input type="button" value="Delete"/>
⋮ Transportation/Logistics	<input type="button" value="Delete"/>
⋮ Electronics	<input type="button" value="Delete"/>
⋮ Furniture	<input type="button" value="Delete"/>
⋮ Vehicles	<input type="button" value="Delete"/>
⋮ Miscellaneous	<input type="button" value="Delete"/>
⋮ Home Repairs	<input type="button" value="Delete"/>
⋮ Moving	<input type="button" value="Delete"/>
⋮ Event Planning	<input type="button" value="Delete"/>
⋮ Pet	<input type="button" value="Delete"/>
⋮ Services	<input type="button" value="Delete"/>
⋮ Local Events	<input type="button" value="Delete"/>
⋮ Groups	<input type="button" value="Delete"/>
⋮ Classes	<input type="button" value="Delete"/>
⋮ General	<input type="button" value="Delete"/>

Figure: Cards for Card Sorting 2



Figure: Cards for Card Sorting 3

3. List The Possible Categories



Figure: Categories for Card Sorting

4. Edit The Necessary Messages & Instructions

The screenshot shows the 'Messages & instructions' tab selected in a navigation bar. It displays two message templates:

- Welcome screen:** A title 'Welcome' and a message box containing text about a Craigslist study, with 'Edit' and 'Preview' buttons.
- Instructions:** A title 'Instructions' and a message box containing instructions for card sorting, with 'Edit' and 'Preview' buttons.

Figure: Message for Card Sorting

5. Check Study Settings

The screenshot shows the 'Settings' tab selected in a navigation bar. It displays several study settings:

- Study settings:** Includes 'URL slug' (osro822w), 'Session replay' (Off), 'Language' (English (US)), 'Password protection' (e.g. @c1d3n0m), and 'Closing rule' (Manually).

Figure: Setup Settings for Card Sorting

3.2.6 User View

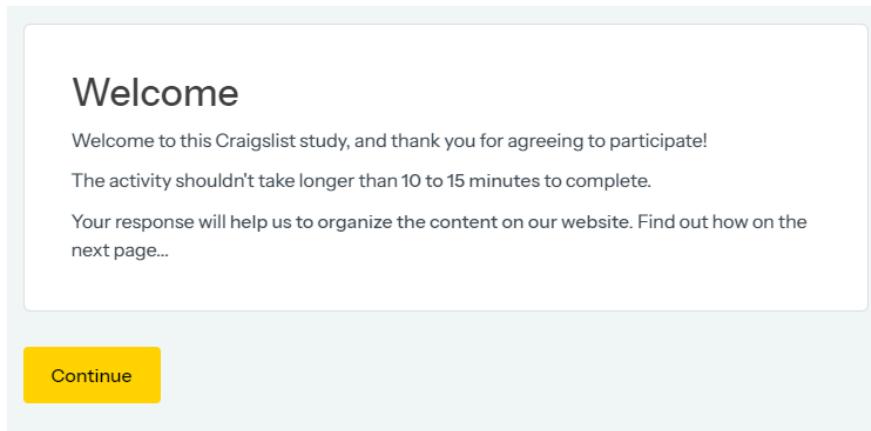


Figure: User View on Card Setting (Welcome Page)

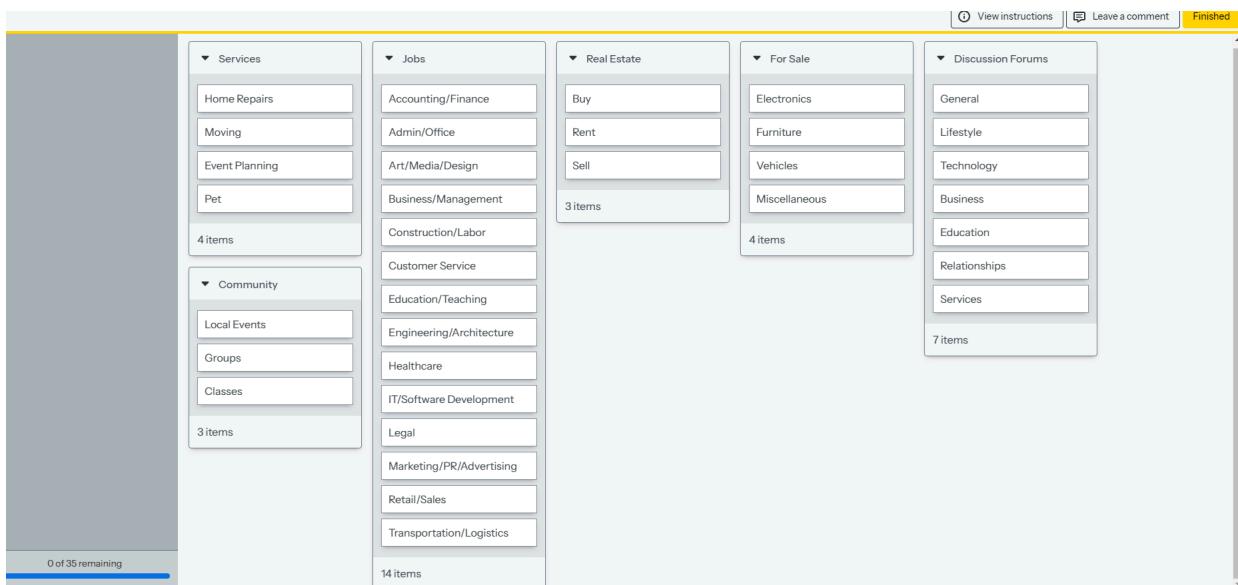


Figure: User View on Card Setting (Card Selection Page)

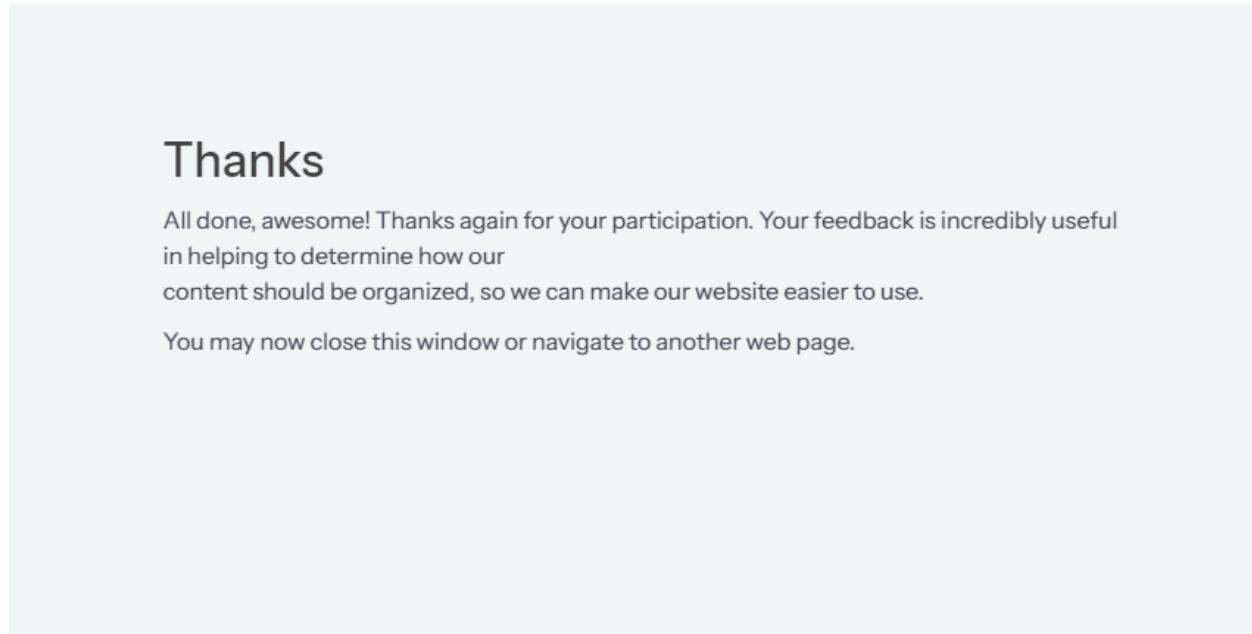


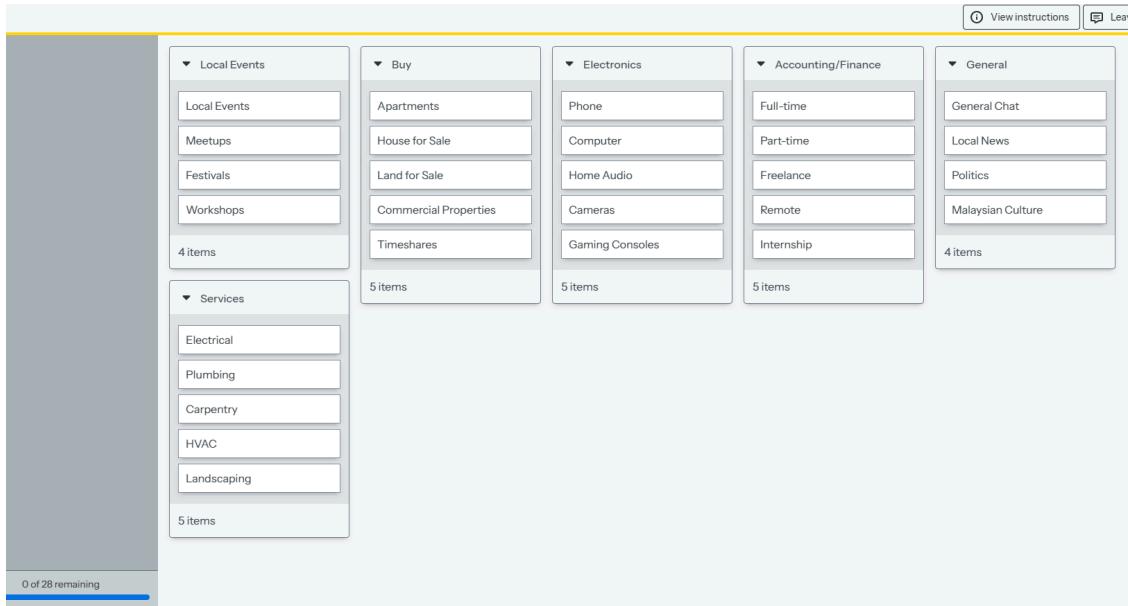
Figure: User View on Card Setting (Thank You Page)

Result

	Real Estate	Jobs	For Sale	Services	Community	Discussion Forums	unsorted
Buy	100%						
Rent	100%						
Sell	100%						
Accounting/Finance		100%					
Admin/Office		100%					
Art/Media/Design		100%					
Business/Management		100%					
Construction/Labor		100%					
Customer Service		100%					
Education/Teaching		100%					
Engineering/Architecture		100%					
Healthcare		100%					
IT/Software Development		100%					
Legal		100%					
Marketing/PR/Advertising		100%					
Retail/Sales		100%					
Transportation/Logistics		100%					
Electronics			100%				
Furniture			100%				
Miscellaneous			100%				
Vehicles			100%				
Event Planning				100%			
Home Repairs				100%			
Moving				100%			
Pet				100%			
Classes					100%		
Groups					100%		
Local Events					100%		
Business						100%	
Education						100%	
General						100%	
Lifestyle						100%	
Relationships						100%	
Services						100%	
Technology						100%	

Figure: Result on Card Setting (Placement of Each Tasks/Items in Categories)

A reference table of categories (Real Estate, Jobs, For Sale, Services, Community etc.) to tasks/items to perform or action verbs(Buy,Rent,Sell and so on) seen in the picture above the cells we see in blue with “100%” just describe how each of our tasks or items come under the different colors, i.e., they are perfectly sorted in optimal alignment within that section. It brings an organized representation of data i.e., every task/item falls neatly under its most relevant parent category and it works, to reach a clear illustration without overkill or mismatch.



This screenshot shows a user interface for card selection. At the top right are two buttons: 'View instructions' with a help icon and 'Leave feedback' with a speech bubble icon. Below this is a horizontal bar with a yellow gradient. The main area contains five categories of cards:

- Local Events**: Local Events, Meetups, Festivals, Workshops. Subtitle: 4 items.
- Buy**: Apartments, House for Sale, Land for Sale, Commercial Properties, Timeshares. Subtitle: 5 items.
- Electronics**: Phone, Computer, Home Audio, Cameras, Gaming Consoles. Subtitle: 5 items.
- Accounting/Finance**: Full-time, Part-time, Freelance, Remote, Internship. Subtitle: 5 items.
- General**: General Chat, Local News, Politics, Malaysian Culture. Subtitle: 4 items.

At the bottom left, it says '0 of 28 remaining' next to a progress bar.

Figure: User View on Card Setting (Card Selection Page 2)

	Buy	Accounting/Finance	Electronics	Services	Local Events	General	unsorted
Apartments	100%						
Commercial Properties	100%						
House for Sale	100%						
Land for Sale	100%						
Timeshares	100%						
Freelance		100%					
Full-time		100%					
Internship		100%					
Part-time		100%					
Remote		100%					
Cameras			100%				
Computer			100%				
Gaming Consoles			100%				
Home Audio			100%				
Phone			100%				
Carpentry				100%			
Electrical				100%			
HVAC				100%			
Landscaping				100%			
Plumbing				100%			
Festivals					100%		
Local Events					100%		
Meetups					100%		
Workshops					100%		
General Chat						100%	
Local News						100%	
Malaysian Culture						100%	
Politics						100%	

Figure: Result on Card Setting (Placement of Each Tasks/Items in Categories 2)

Result 2

Optimal Sort Method to make it Easy-To-Find “Buy” features real estate-related items like Apartment and timeshares, whereas “Accounting/Finance” includes job types like Freelance and Full-time. Cameras and Computers fall under “Electronics,” while Carpentry and HVAC are in “Services.” it makes logical sense to users as it groups Community Events such as Festivals and Meetups under the Local Events category, and more general topics like Local News and Politics fall under General

4.3 Prototype

Prototype link:

<https://www.figma.com/design/fKV4RjloXBFvYtVdv17E9i/HCI?node-id=0-1&t=UJWZFvdSaAhDS7rP-1>

(Press the triangle button on the top right for Webpage View)

4.3.1 Main page

The main page has been developed with a top-bar navigation that is well structured using colors that contrast and typographies that are clear to make the key functions visible. This page is made up of a search box in the middle, easy access to the respective categories and the user tools which include login and cart in this case. Above all, the design of the page focuses on the ease of it being used since the categories are large and properly spaced out within the page. In addition, interactive elements provide feedback through hover effects enabling functionality by directing the user to the sections where the user is expected to perform activities.

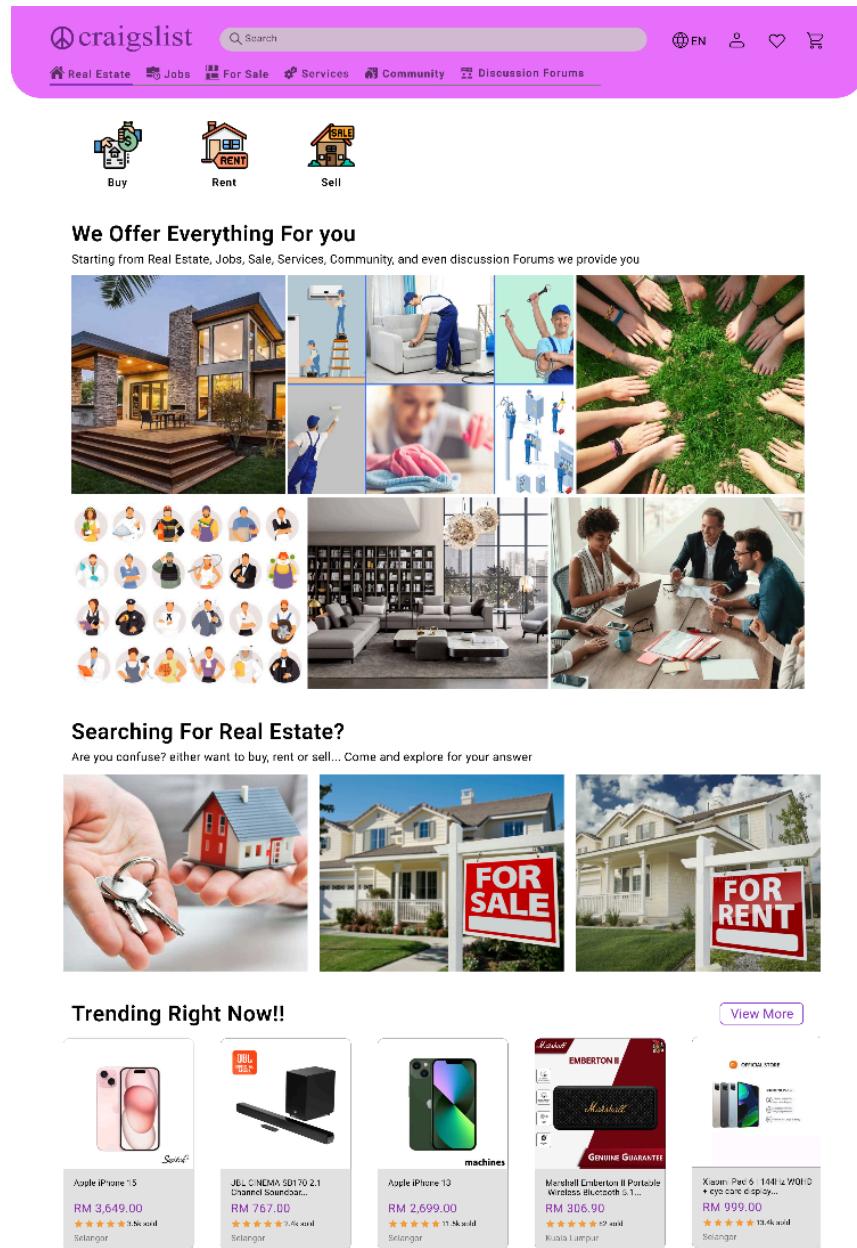


Figure: Main Page

Usability Goals: Learnability

Visibility:

- The use of a bright contrasting color and clear typography elements on the prominent top-bar navigation is to ensure that the key functions will be available to users view as first impression.
- Attention is drawn to the centrally located search bar with a magnifying glass icon positioned within signifying its importance as the core feature associated with searching and which needs to be readily available.

- Consistent sizing and spacing of large and category cards enables easy identification and accessibility of different sections to the users
- Important functions such as login and cart are fixed to the header which makes it easy for users to navigate removing such functions on their use.

Mapping:

- The functions of the content areas are easily discernible even without the use of text.
- Menu items are organized according to statistical information of their average frequency of usage.
- The results appear below the search box in a drop down list, thus these two operations resin in close proximity to each other in their placement

Feedback:

- Interactive areas will change color and rise when the mouse pointer hover over them, informing the user the sections can be clicked immediately
- Sections that are active have a certain color or an underline which helps the users to know where they are on the site.

4.3.2 Login and create account section

This page facilitates an easy and efficient login to the application and even creates an account. In the error prevention features, the page includes a password strength bar, makes clear the correct email format, and has various fields shown with a red asterisk that are compulsory. In order to enhance user's control, some options such as "Back", "Cancel", and "Forgot Password" are well indicated. Dummy text assists users to input the correct information into the relevant boxes and also a password toggle switch has been provided to ensure that the password is safe.

The figure displays three wireframe prototypes of a user interface for logging in and creating an account. The prototypes are arranged vertically and share a common header and footer.

Header:

- Left side: "sion Fo" (partially visible)
- Center: "Log in to your account"
- Right side: "ms" (partially visible)

Left Prototype (Top Left):

- Text: "Phone number, email, or username" above an input field.
- Text: "Password" above an input field with an eye icon.
- Text: "Log in" in a pink button.
- Text: "or" below the log in button.
- Text: "Create account" in a pink button.
- Text: "Forgot Password?" below the "Create account" button.

Middle Prototype (Top Right):

- Text: "Email" above an input field.
- Text: "Password" above an input field with an eye icon.
- Text: "Confirm Password" above an input field with an eye icon.
- Text: "Mobile Number" above an input field with a "+62" prefix.
- Text: "Create account" in a pink button.

Bottom Prototype (Bottom Left):

- Text: "Phone number, email, or username" above an input field.
- Text: "Password" above an input field with an eye icon.
- Text: "Invalid username or password" in red text above the "Log in" button.
- Text: "Log in" in a pink button.
- Text: "or" below the log in button.
- Text: "Create account" in a pink button.
- Text: "Forgot Password?" below the "Create account" button.

Figure: Login and Create Account Section

Usability goals:Learnability

Error Prevention:

- This indicator demonstrates password characteristics and changes as input is being made to minimize errors in submission
- Email address format is verified automatically so that incorrect submissions do not occur
- Submission of forms with missing details is avoided by including sections that are clearly marked with red asterisks as a requirement
- Validation of fields as a user fills in a form prevents errors and unnecessary workload when the form is being submitted

Recognition & Recall:

- For every defined requirement, there are labels located on the top of the input area that illustrate what is required
- Placeholder texts explain to users the field usage and how to fill it

User Control & Freedom:

- There are ‘Back’ and ‘Cancel’ buttons which are clearly marked. The user can press any of them at any stage of the process and will not lose the progress
- The user can check the password that is typed in using the eye icon, but the password by default is masked
- A “forgot Password” link is clearly visible to help users recover their account when they cannot remember their passwords.

4.3.3 Categories

This section has its listings spaced out into logical and sensible categories with edges painted to avoid mixing up with services and products. This is achieved through a system of hierarchical menus where subcategories are displayed only when the main category is selected making it easier for the users. Also known as vertical navigation, the design helps in the use of consistent spacing, color style, and design aids within the hover navigation bar thus allowing the user to access and view detailed information about a specific item and the hover navigation bar included above even indicates which are clickable.

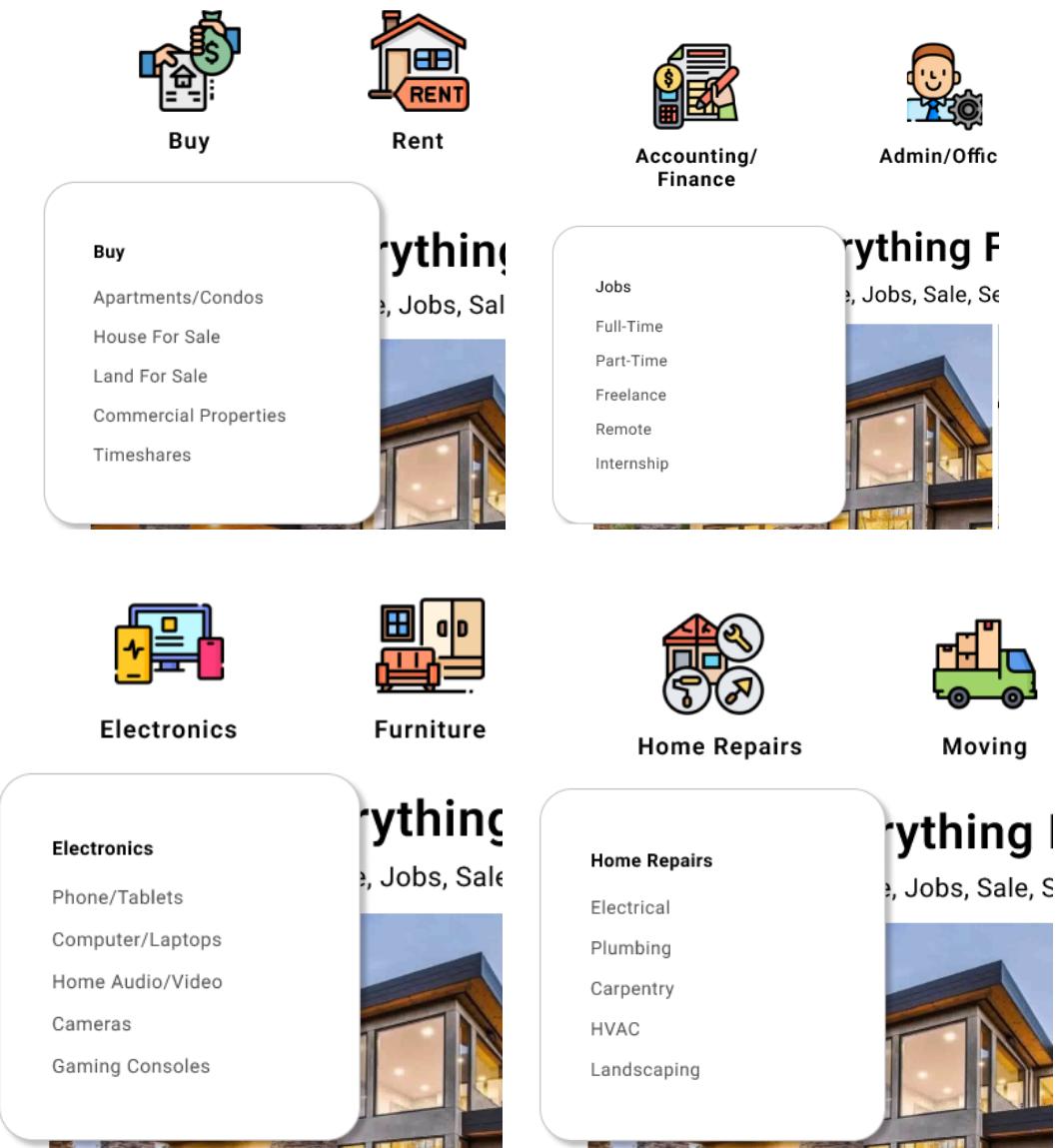


Figure: Different Listing of Different Categories

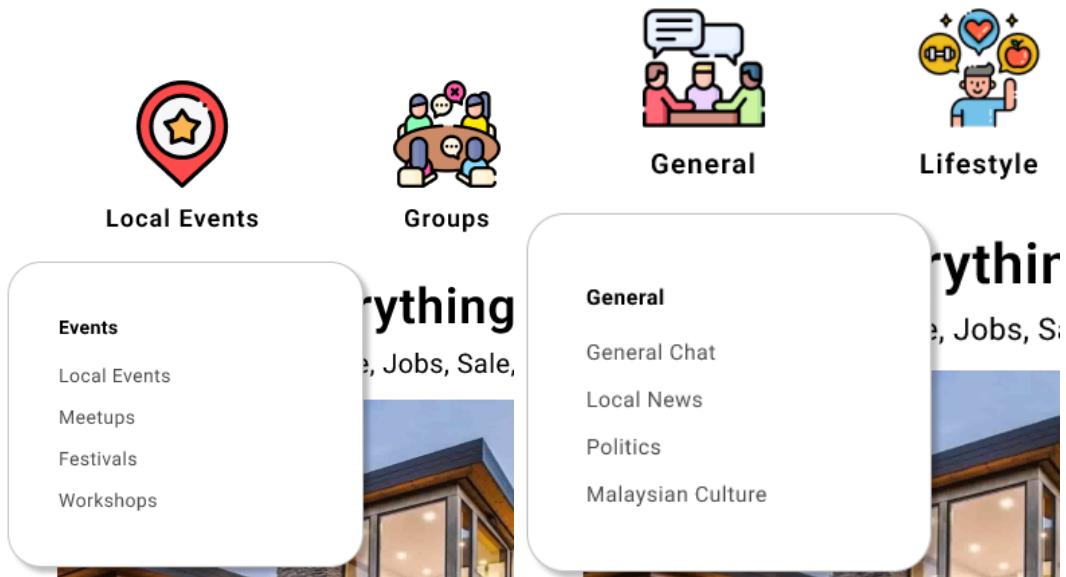


Figure: Different Listing of Different Categories

Usability Goals: Memorability

Constraints:

- The categories are distinctly demarcated with physical barriers in order to cushion users from mixing different products or services.
- A hierarchical menu system where subcategories reveal themselves only when a parental category is selected so as to ease cognitive and mitigate navigation problems.
- Users are given distinct category groups, the design ensures spacing and layers dedicated to a category help the user in comprehending the natural organization of the content.
- Users will not be overwhelmed by navigation structure as only three levels category depth is allowed

Consistency:

- There are uniform width, height, padding and typography for all category cards in order for the interface to have a cohesive look.
- Category icons are of the same style, same dimensions and same scale.
- A uniform and distinct color coding simplifies the processing of the system by the users as they can easily tell which categories are similar and where they fit in the system.
- Spacing and alignment that are the same creates recurrent patterns that enable users to locate the categories they want

Affordance:

- Features such as shadow effects and hover states are used to tell users which elements can be clicked.
- A balanced design is such that larger card represent main categories while smaller cards represent subcategories, hence enhancing the navigation structure for the user.
- Interactive elements appear the same for all users, hence users learn where clickable areas are without the need for any information hint

4.3.4 Favorite and Cart

This section allows users to track and manage items they're interested in purchasing. System status updates display the total cart count, while confirmation messages verify each action taken. An undo option supports quick error recovery. Users can adjust quantities, colors, and sizes directly in the cart, with a consistent icon arrangement across pages to streamline the shopping process.

Your Favourites

Real Estate

2 Favourites



Jobs

2 Favourites



For Sale

5 Favourites



Services

1 Favourites



Figure: Favorite page

Your Cart

For Sale

5 Items in total

[Undo](#)



Apple iPhone 15
Blue, 512GB

RM 3,649.00

[Voucher/Discount](#)

Products (5)

RM 13,230

Delivery Price (inc. 6% SST)

From RM 793.8

Subtotal (excl. assembly fee)

RM 14,023.8

By clicking "Checkout," you're agreeing to our [Privacy Policy](#)

[Checkout](#)



Apple iPad (10th generation)..
Blue, 512GB

RM 1,909.00

[Remove](#)



Apple iPhone 13
Blue, 256GB

RM 2,699.00

[Remove](#)

Figure: Cart Page

Usability Goals: Errors

Visibility of System Status:

- Provides an update of the total number of checked out items, where this number updates whenever one adds or removes items from the cart.
- After each adjustment of the cart made by the user, a message appears informing that the action has been carried out successfully.

Error Recovery:

- After an item is removed, a temporary undo function is seen which helps in the fast return of the item that may have been deleted, by chance, without going through many actions.
- Quantity errors in the cart can be easily corrected with simple plus/minus controls and an option to enter the number directly
- Add and modify items in the cart and change size, color, and quantity of items without having to start the process all over again.

Consistency and Standards:

- Standard icons of the shopping cart and marks for the favorite section play reasonable e-commerce patterns which form the existing mental model among the users.
- Uniformity in arranging action buttons on all pages attached to the cart reduces frustration and enhances navigational guidance efficiency.
- All messages pertaining the cart are specified in the same manner in the system helping the user understand the creation of the system easily

4.3.5 Real Estate

The real estate page includes detailed filters for property searches, like price sliders and amenities selection, enabling users to refine their results. Clear labels for properties indicate if they are new, for sale, or sold, while high quality images allow for better browsing. “Call” buttons let users contact agents directly, creating an efficient user experience

The screenshot shows a search results page for real estate on Craigslist. The top navigation bar includes links for Real Estate, Jobs, For Sale, Services, Community, and Discussion Forums. The main content area is divided into several sections:

- Apartments / Condos:** Shows two listings: "Residence Suites @ Journey Velocity" (RM 380,000) and "Sky Suites @ KLCC" (RM 900,000).
- Houses For Sale:** Shows two listings: "Delta City Depok" (RM 2,200,000) and "Seri Nasir" (RM 970,000).
- Land For Sale:** Shows two listings: "Bukit Cheras - Change Reward Land" (RM 550,000) and "Bukit Tinggi - Development Land" (RM 55 per sqft).
- Commercial Properties:** Shows two listings: "Kota Berjaya Pahat" (RM 3,380,000) and "Sektor Dalamam (Commercial)" (RM 710,000).
- Timeshares:** Shows two listings: "Millennia Residences" (RM 2,600/mo) and "Sky Suites @ KLCC" (RM 2,480/mo).

On the right side, there is a detailed listing for "V Residence Suites @ Sunway Velocity" located at Jalan Cheras, Cheras, Kuala Lumpur. The listing includes a large image of the building and interior rooms, along with a summary of features and amenities.

Unit Features		Facilities	
✓ Air-Conditioning	✓ Balcony	✓ Jacuzzi	✓ Lounge
✓ City View	✓ Cooker Hob/Hood	✗ BBQ	✗ Covered car park
✓ Jacuzzi	✓ Original Condition	✗ Gym	✗ Multi-purpose Hall
✓ Water Heater			✗ Reflexology Path

Below the facilities table are buttons for "Message" and "Call".

Figure: Real Estate Page

Usability Goals: Learnability

Mapping:.

- The slider controls for prices ranges are directly correlated to the market prices
- The amenities provided by a property are presented in a way that depicts the actual features, thus making it easy for one to understand.

Feedback:

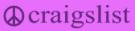
- It is easy to see which filters are on due to the use of visual and animation elements portraying filter status with the search results being updated accordingly.
- Message reveals itself anytime when any property inclusion or exclusion from the favorites takes place serving as a means of assuring the user.

Concerning Visibility:

- Property cards swiftly and obviously highlight the necessary data including price, number of bedrooms, and area measurement in the card.
- High quality property images are provided with an easy flow of images
- Labels clear as to the new properties, those on sale, and those that have been sold.
- Call to action buttons for the agents and the view bookings are standard on all the listing pages.

4.3.6 Jobs

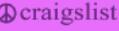
As this section has been optimized for job search, it employs listing cards where essential features such as job title, company and salary have been included. Additional filters such as industry and location allow users to further slim down their focus on the job search. The layout is deliberately designed to mimic the chronological, real-life procedure of a job seeker, allowing for numerous filters to avail the desired results in a quick, easy and tailored way.

 craigslist Search

Real Estate Jobs For Sale Services Community Discussion Forums

 Accounting/Finance Jobs Filter

 Key Account Executive Full Time 17 days ago	 Account Intern Internship 2 days ago
 Account Executive Full Time 19 days ago	 Account Executive Full Time 2 days ago
 Internship for Finance Internship 3 days ago	 Senior Account Executive Full Time 25 days ago

 craigslist Search

Real Estate Jobs For Sale Services Community Discussion Forums



Key Account Executive  

Full Time 17 days ago

Skills

- Account Management
- Customer Service
- Business Development

Job Description

Position : Account Manager (**Key Account Management**)
 Salary Range : RM 3,500 – RM 4,000
 Location : KL Eco City, Bangsar
 Working Hours : Monday - Friday (10.00am – 7.00pm)

Job Scope

- Serve as the point of contact between Company and Wellness Advocates leaders.
- Collaborate with internal departments to facilitate and follow up on extenuating circumstances.
- Build and maintain strong, long-lasting relationships with Wellness Advocates.
- Instruct Wellness Advocates on Company policies and procedures.
- Strategize with Wellness advocates by helping them to set measurable goals with an executable action plan to reach their goals. Follow up as needed to assess effectiveness, adjust or to set new goals.
- Call all members for advanced notice to inform/congratulate them and introduce them to Account Management and the benefits this program provides.
- Other responsibilities include emails, voicemails, chat and maintaining a page in the Leadership book for the members we work with.
- Any other ad-hoc duties assigned by Management.

Job Requirements

- Good command of multilingual languages and abilities: reading, writing, and speaking
- Good command knowledge of MLM industry and Compensation Plan
- Team player, energetic, out-going, good communication and phone skills
- Ability to work independently
- Wellorganized and thorough, able to work under pressure
- Good computer skills (Microsoft Office)
- Willingness to learn
- Previous customer service experience will be an advantage

Company Profile

 MyGENO.com

At GENO Management, we are committed to helping our clients achieve their business objectives by providing them with the best HR solutions and services. We strive to create an environment where our clients can focus on their core business and have the confidence that their HR needs are in the hands of experienced professionals.

Our team of experienced HR professionals is dedicated to providing the highest quality of service and support to our clients. We take pride in our ability to provide innovative solutions that are tailored to meet the specific needs of each of our clients.

We understand that every business is unique and our goal is to help our clients create a culture of success and growth. Our team of experts is available to provide advice and guidance on a wide range of HR topics.

At GENO Management, we believe in creating a work environment that is conducive to creativity and productivity. We strive to ensure that our clients have the tools and resources they need to succeed. We are committed to providing the best HR solutions and services to our clients and we are dedicated to helping them achieve their goals.

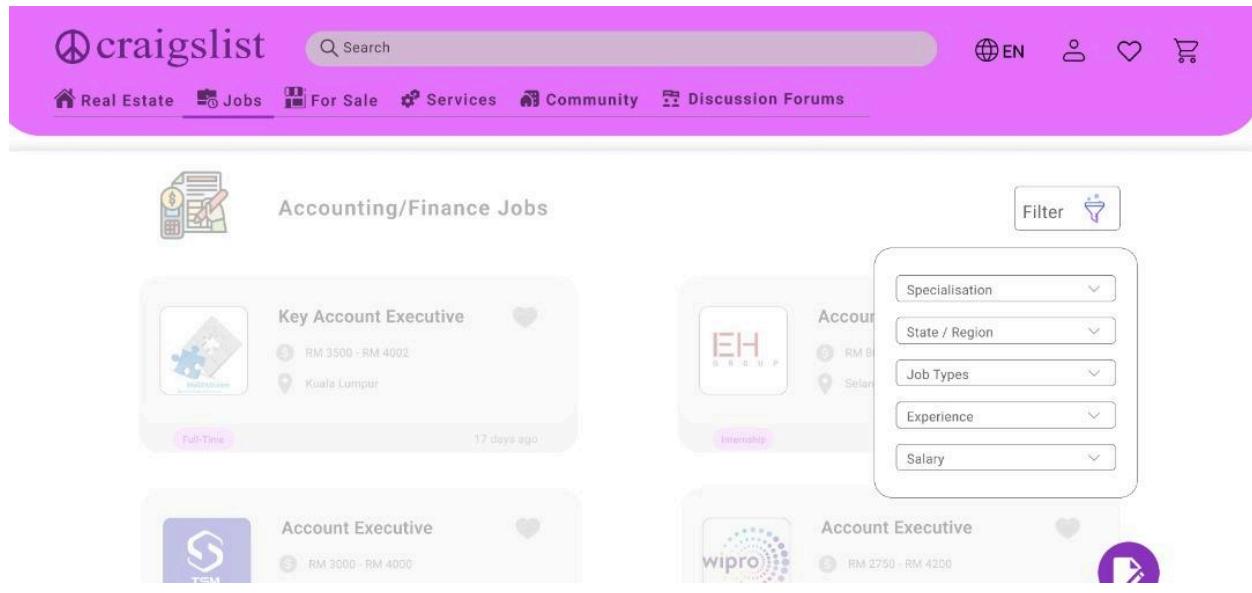


Figure: Job Page

Usability Goals: Errors

Minimalism and Aesthetic Design:

- Well designed and appropriately detailed listing cards offer critical details in easily scannable way without bombarding the user with excess information.
- Vital information elements such as a job title, name of the company and salary range are arranged in sequence according to their significance for easy scanning.

Error Prevention:

- The uses of blurring the other functions when the user is using the filter function prevent the users from selecting the wrong parameter.
- The blurring also pulls the user's attention to the filter function, to indicate that the other functions are now disabled.

Adaptability and Efficiency:

- The use of the feature that allows the user to set job search parameters when such jobs are available.
- The enhanced search makes it possible to use more than one filter at a time to streamline the search results to the desired specifications

4.3.7 For Sale

The For Sale page allows users to view items for sale quickly and conveniently and has a back to category button for easy access. Standard layouts of product cards such as images, prices, and titles create a uniformity in the process. Also, a new items section and search filters which are always available at the bottom ease the process of going back to the earlier searched items.

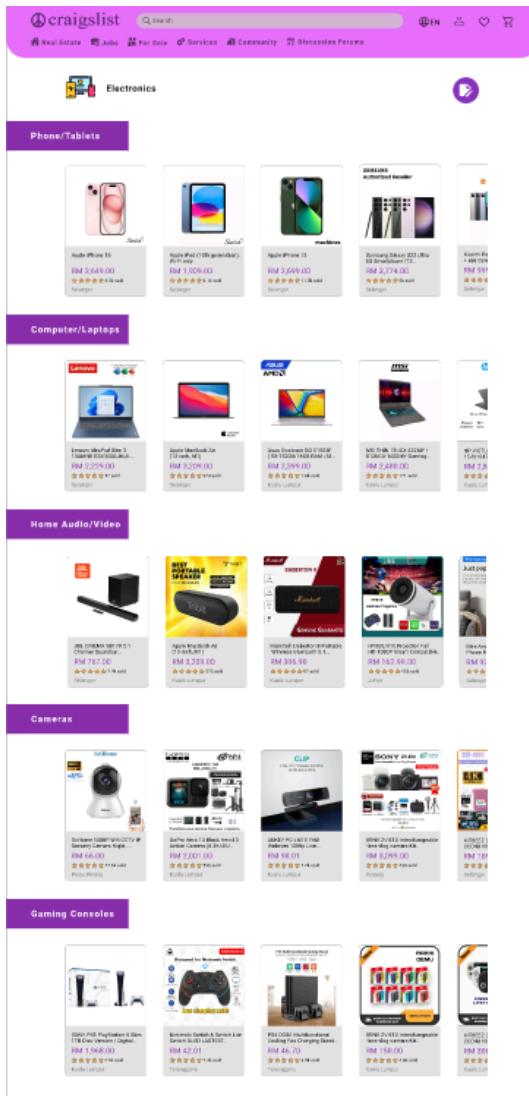


Figure: For Sale Page

Usability Goals: Memorability

User Control and Freedom:

- Straightforward button “Back to Import Categories” makes the user click on it and easily come back to this state of browsing.
- Accidental removal of items or changing the category can be reverted several times.

Consistency and Standards:

- All product cards have a similar product structure containing an image at the top followed by a price and title at the bottom.
- Use of common standard icon set for all the interactive elements on the site to enhance user comfort.

Recognition and Recall:

- At the bottom of the page, items that were most recently viewed will be shown.
- When scrolling through search results, search filters remain visible and active as well

4.3.8 Services

This page presents a properly structured arrangement of service providers with categories that are closely related to offer service such as home repairs and cleaning. Each provider has its star ratings and number of reviews to increase visibility to users and “Book Now” icons are readily available to motivate users. When the mouse is pointed toward such interactive objects, their state changes which indicates that they can be used and makes it easy to choose them.

The screenshot displays a service provider page with the following structure:

- Header:** craigslist logo, search bar, language (EN), user icon, cart icon.
- Navigation:** Real Estate, Jobs, For Sale, Services, Community, Discussion Forums.
- Categories:**
 - Home Repairs:** James Walters (Kuala Lumpur, RM 60/hour, 4.8), Ethan Coleran (Johor Bahru, RM 55/hour, 4.9), Michael Foster (Penang, RM 55/hour, 4.8), Sarah Bry (Ipoh, RM 55/hour, 4.9).
 - Electrical:** John Mitchell (Kuala Lumpur, RM 70/hour, 4.9), Robert Hoyes (Malaka, RM 65/hour, 4.9), Daniel Harper (Selangor, RM 75/hour, 4.9), Peter Giss (Kuala Lumpur, RM 70/hour, 4.9).
 - Plumbing:** Emily Dawson (Klang, RM 65/hour, 4.9), Daniel Harper (Selangor, RM 65/hour, 4.9), Thomas Miller (Selangor, RM 60/hour, 4.9), Olivia Henry (Penang, RM 65/hour, 4.9).
 - Carpentry:** Peter Gibson (Kuala Lumpur, RM 60/hour, 4.9), Thomas Miller (Johor Bahru, RM 70/hour, 4.9), David Cross (Pertaling Jaya, RM 85/hour, 4.9), Chris Rice (Kuching, RM 82/hour, 4.9).
 - HVAC:** Samson Cooper (Selangor, RM 60/hour, 4.9), Ryan Phillips (Ipoh, RM 70/hour, 4.9), Chloe Adams (Selangor, RM 65/hour, 4.9), Megan Taylor (Kuala Lumpur, RM 80/hour, 4.9).
 - Landscaping:** Samson Cooper (Selangor, RM 60/hour, 4.9), Ryan Phillips (Ipoh, RM 70/hour, 4.9), Chloe Adams (Selangor, RM 65/hour, 4.9), Megan Taylor (Kuala Lumpur, RM 80/hour, 4.9).
- Detail View:** Shows James Walters (Kuala Lumpur, RM 60/hour). Bio: James Wong is a skilled and certified electrician with over 10 years of experience serving residential and commercial clients in Kuala Lumpur and surrounding areas. Known for his professionalism and attention to detail, James specializes in electrical installation, wiring, lighting systems, and troubleshooting. His deep understanding of Malaysian electrical codes and safety standards ensures that all projects are completed efficiently and safely. Review (100+): Great service! James fixed our electrical issues quickly and professionally. He explained everything clearly and made sure everything was safe. Highly recommended! Testimonial: James did a fantastic job installing new lighting in our office. He was punctual, efficient, and very friendly. We'll definitely call him again for future work!

Figure: Service Page

Usability Goals: Learnability

Mappings:

- Related services location is awry but co-located, eg home repairs services next to cleaning services.
- More Logical service categorization in a single page.
- Clearly allocate the picture, name, bio, and review in a organized way.

Visibility:

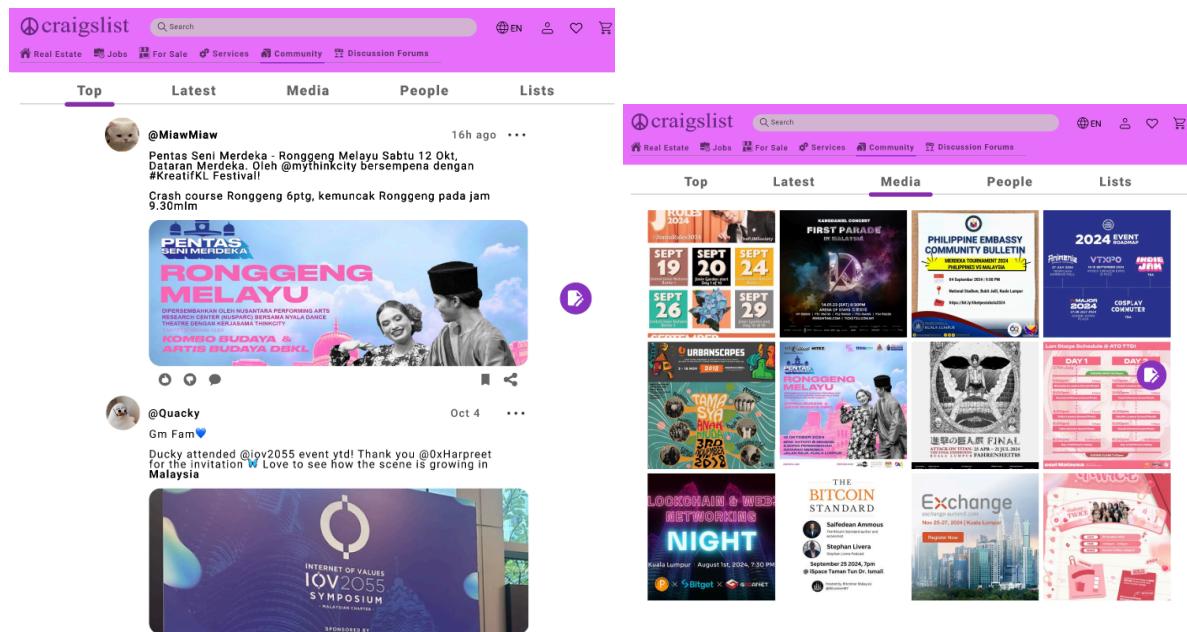
- The rating of the service provider is done using a star system and a review count visually made noticeable.
- The contact information and the average response time are given on the service cards as well.

Affordance:

- The Book Now buttons have raised appearance indicating that they should be clicked on.
- Software elements also change in shape when hovered over in order to show that an action is possible.

4.3.9 Community

The community page includes tools for social interaction, such as quick-start guides and visual tutorials for new members. Users have control over posts, with options to edit, delete or exit events easily. Community roles like moderator and member reflect real-world social structures, making the page intuitive and accessible.



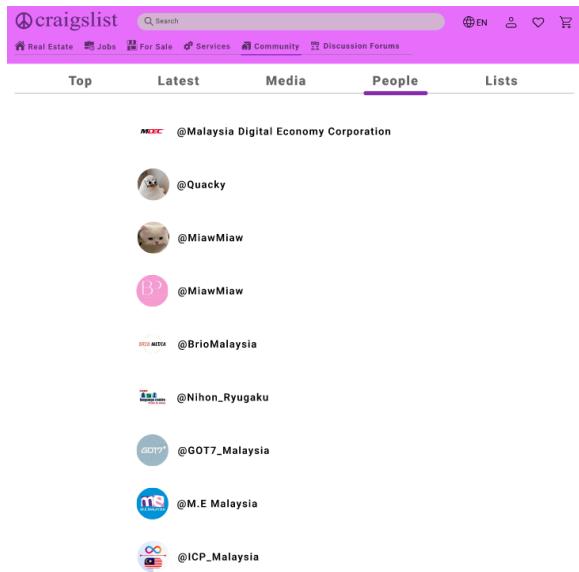


Figure: Community Page

Usability Goals: Learnability

Help and Documentation:

- Quick start guide available with visual tutorials for new community members
- When hovering over the complex features, help bubble appear next to them

User Control and Freedom

- Confirm the dialog that allows the user to exit any group or event with one click
- Within a short period of time, the users have the easy functionality of editing and deleting posts.

Match between system and real world

- The flow of event organization within the system reflects the event planning in the real world.
- The community roles such as moderator, member and admin are drawn from the real social organization.

4.3.10 Discussion Forum

In this section, error prevention features like auto save protect long posts from accidental loss, while a preview option lets users check formatting before posting. Intuitive feedback helps users recognize and recover from errors, fostering a user friendly environment for meaningful discussions.

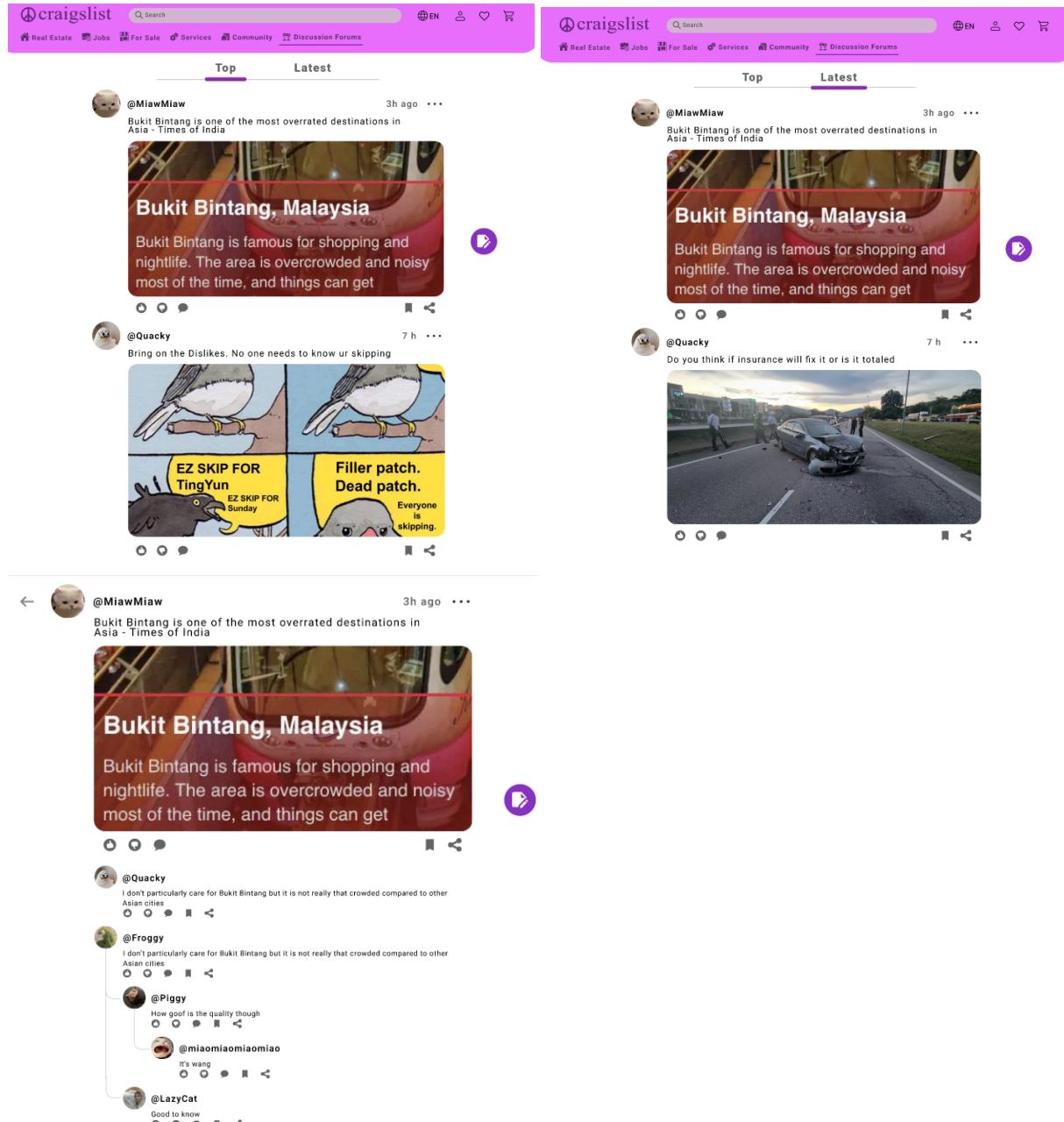


Figure: Discussion Forum

Usability Goals: Errors

Error Prevention:

- Auto save feature comes on when the user is busy typing and this enables them to save the constructed form in the event of lengthy posting.
- The user will be able to see how the actual post will appear before the posting action is activated.

Help Users Recognize, and Diagnose, and Recover from errors

4.3.11 Posting Pages per categories

Each category has a dedicated posting page to streamline content creation. Minia design tools promote uniform appearance across posts, while character count requirements encourage constructive participation. Recent discussions and user ratings are displayed at the top, facilitating engagement and quick navigation to active threads.

Post Your Property

Property Name	Category	
<input type="text"/>	<input type="text"/>	
Locations	Price	
<input type="text"/>	<input type="text"/>	
House Information	Unit Features	Facilities
<input type="text"/>	<input type="text"/>	<input type="text"/>
Upload Picture  Drop your image here, or browse		
<input type="button" value="Post"/>		

Post a Job Now

Job Title	Location
<input type="text"/>	<input type="text"/>
Job Categories	Skills
<input type="text"/>	<input type="text"/>
Salary	
<input type="text"/>	
Job Description	Job Requirements
<input type="text"/>	<input type="text"/>
Upload Picture  Drop your image here, or browse	
<input type="button" value="Post"/>	

Post Your Product

Product Name <input type="text"/>	Category <input type="text"/>
Variation <input type="text"/>	Price <input type="text"/>
Product Description <input type="text"/>	
Upload Picture <div style="border: 1px solid #ccc; padding: 10px; text-align: center;"> Drop your image here, or browse</div>	
Post	

Post Your Services

Name <input type="text"/>	Category <input type="text"/>
Price <input type="text"/>	Location <input type="text"/>
Bio <input type="text"/>	
Upload Picture <div style="border: 1px solid #ccc; padding: 10px; text-align: center;"> Drop your image here, or browse</div>	
Post	

Post New thread



@MiawMiaw

What's new today?



Post

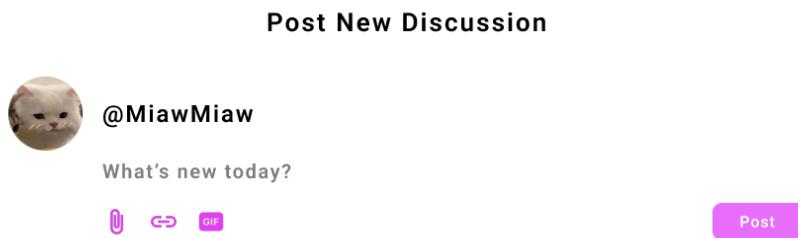


Figure: Posting per Categories

Usability Goals: Learnability and Errors

Feedback:

- The like and dislike counter feature works efficiently as users refresh their posts
- An endorsement message is activated after posting thread or responding to one

Visibility:

- Most recent active discussions are displayed at the upper part of the page giving the times and the number of replies
- User ratings and status badges are attached close to the user's name for respect purposes.

Constraints:

- The posting section of the discussion board contains very few designing tools so as to enhance uniformity in the documents final appearance
- There is a minimum number of characters required to be written in a discussion, hence promoting constructive participation in the discussion

Stage 4: Formative Evaluation

5.1 DECIDE Framework

The DECIDE Framework is a structured process commonly used as a guideline in the planning of UI/UX design and where evaluation takes place. It helps to guide the evaluation of systems, prototypes, or any user interfaces by structuring a clear set of 6 steps that analyzes user experience and identify key areas of improvement.

5.1.1 Determine the goal (D)

The first stage of the DECIDE framework is to define the user needs for said system. They must establish what goals are required to achieve in the design of the proposed system. Clearly defined goals are highly recommended to ensure the evaluation is focused and purposeful. The overall goal for evaluating the design interface of Craigslist website is to identify the changes needed and ensure the final UI design is achieved. The foundation of design uses 5 quality components defined by Jakob Nielson (2003)

Main Goals to achieve:

1. **Goal 1:** Ensures the learnability for users is fitting and easy to understand.
2. **Goal 2:** Ensures the efficiency to be sufficiently capable.
3. **Goal 3:** Ensures memorability is achieved for ease of learning.
4. **Goal 4:** Ensures occurrence of errors to be minimized to be tolerable.

5.1.2 Explore the question (E)

The second stage of the DECIDE framework is to expand the goals from the first stage where further evaluation with more precise questions are asked in hopes of learning how to achieve the desired outcomes. The questions are determined based on the goals that they are expanded from.

Goal 1: Ensures the learnability for users is fitting and easy to understand.

1. How intuitive is the interface for first-time users?
2. Are users able to locate primary functions without external help/guidance?
3. How quickly can tasks be completed during their initial interactions?
4. Are the labels and terminologies used easy to understand?
5. Is there guidance that helps new users to learn how to better use the site?

Goal 2: Ensures the efficiency to be sufficiently capable.

1. How quickly can common tasks be completed?
2. Does the interface provide shortcuts or streamlined options?
3. Are there an excessive number of steps needed to perform tasks?
4. Is there any lag or delays that impact the experience?
5. How well does the system respond to multiple user requests or actions?

Goal 3: Ensures the memorability is achieved for ease of learning.

1. Can regular users recall how tasks are performed after inactivity?
2. Do users require multiple interactions before remembering how to perform?
3. Are the layout and navigation of the website consistent?
4. Are the icons and labels memorable and clear in representing their function?

Goal 4: Ensures the occurrence of errors to be minimized to be tolerable.

1. Are there checks/mechanisms in place to prevent common user errors?
2. Do error messages come with clear guidance on how to correct mistakes?
3. How frequently do users encounter errors during normal users?
4. Are errors easily recoverable without losing progress or data?
5. Are there clear back options that allow corrections?

5.1.3 Choose the evaluation paradigm & activities (C)

After establishing the goals and questions in stage 2, more elaborate techniques are to be implemented to deliver more useful information. In this study, two different evaluation techniques are chosen, them being usability testing and heuristic evaluation where they will be used to collect feedback from the users of the website. Usability testing involves observing users interacting with the site with the goal of identifying areas where users encounter difficulties, providing insights to be used for improving user experience. Heuristic evaluation is an expert-based assessment where experts will review a system against already established usability principles and guidelines to evaluate if the website meets best practices.

5.1.4 Identify the practical issues (I)

Before starting the testing phases with users and experts, there need to be a process of identifying practical issues in advance such as selection of users and experts, time constraint concerns, equipment needed for conducting said evaluation, and ethical considerations such as consent and privacy of testers. For a better visualization of the process, it is to be visualized in a table to view requirements for each technique.

	Usability Testing	Heuristic Evaluation
--	-------------------	----------------------

Testers' availability and selection	10 users of varying skills and knowledge, conducted based on volunteers	3 experts of related fields (preferably of UI/UX designer), any available time slot
Time constraints	1 hour per person	Maximum of 3 hour per person
Equipment required	PC with Firefox or chromium-based browser	PC with Firefox or chromium-based browser
Ethical Consideration	Users are given the choice to opt out of personal info	Are to provide identification for their experience and position

5.1.5 Decide how to deal with the ethical issues (D)

With the collection of data, a person's privacy is to be respected up to the ethical code. The website should consider a user's privacy and data security in mind where several steps should be conducted so that ethical concerns are considered and mitigate unethical use of data and proper consent. The process of this section to manage these considerations are listed as:

1. Obtain informed consent where users are clearly informed of the purpose of the data collected and what this data is being used for. Risks and benefits are listed such as having their responses and actions recorded.
2. Anonymized data must be used for the users of varying skills to ensure that their private information is not leaked or used by bad actors. This action should be informed to users alongside the use of that data.
3. Respect the rights of users where they can reject the evaluation process by refusing to sign the consent letters.
4. Debrief participants after conducting evaluation with what's observed in the test, ensuring their understanding of the purpose of the study.

5.1.6 Evaluate, interpret, and present the data (E)

The feedback collected from the activities is to be collected in both form of qualitative and quantitative data. The data will then be used for analysis for interpretation to find issues or redundancies. Usability tests that are conducted will be used to produce usability testing reports based on user experiences while

an executive summary will be produced based on the heuristic evaluation done with experts to provide more technical feedback and any room for improvement.

5.2 Usability Testing

Craigslist Website Test

Lee De Xian

10th of November 2024

5.2.1 Introduction on Usability Testing

Craigslist is a classified advertisement website dedicated for advertising of all things, this includes job listings, items for sale, housing, items wanted, community services, gigs, services, and even discussion forums for people to chat. Craigslist is a community driven website for local communities to gather and exchange resources.

A usability test is designed for the purpose of evaluating how the design interface impacts a user's ability to complete tasks within the system efficiently. Usability tests are commonly conducted via a group of participants in various settings, such as conducting in a usability lab, remotely via e-meeting software, or in-person with necessary portable equipment. During the session, the user will be tasked with completing a series of common navigations and tasks to complete. These sessions will be recorded and analyzed to identify areas for improvement to the website.

This usability test is conducted via onsite usability test using the prototype design on the test administrator's laptop with the admin being present as well. This will be a moderated testing whereby The moderator works directly with test participants, guides them through the study, and answers questions in real-time if the participant encounters any challenges while completing their tasks(*Moderated Testing 101: When and Why You Should Use It*, n.d.). The webcam of the laptop will be capturing the participant face while their comments and question are recorded, every action made by the participants will also be logged and screen recorded. The data collected will then be used for analysis including the overall user feedback and questions to create an

informed suggestion in terms of enhancing the user experience of the Craigslist prototype website.

5.2.2 Executive Summary

From 30th of October to 5th of November, a total of 11 participants and volunteers are involved in the testing of the prototype in a Teams meeting with screen shared plus recordings. The purpose of the test was to figure the usability of the website based on the interface design, information flow, and structure. The participants are given a set of tasks to complete and are informed of how their information will be handled. Each session lasted for about an hour with varying duration, all the feedback is gathered while hurdles are recorded without being pointed out to the participants to prevent potential agitation.

The general consensus of participants reported that the prototype website is clear, easy to understand, and responsive to user input. Around 91% (10 out of 11) of participants are satisfied with the design of the website, finding it easy to use, with 1 participant noting the lack of sound ques to be unfriendly. The majority of the participants had previously used similar websites while only a small number of participants (3 out of 11) had ever visited the live Craigslist site. The test identified multiple problems with the site including the overwhelming number of sections and subsections available, the lack of favorite categories, lack of sound ques, and initially confusing home page.

This document contains information such as participant feedback, ratings based on subjective satisfaction, completion rates, rating based on ease of difficulty, time taken, errors faced, and recommendations provided by participants.

5.2.3 Methodology

- Sessions

The team responsible for the testing recruited participants by asking individuals who are free and available for participation around the campus. Each session is conducted with one participant and lasts an average of an hour. During the session, the administrator of the tests explained the flow of the test and let the participant fill in a questionnaire about

their background and currently pursuing degree (or further studies). Participants are to read the tasks needed to be completed and are given no further instructions on how to use the website. After the tests were completed, the participants were asked again to fill in a questionnaire related to the 5 main goals set within the DECIDE framework on their experience with the Craigslist prototype website.

- Participants

There are a total of 11 participants who were all students of the HCI module. On October 30th, 3 participants were involved in testing, no testing was done on 31st of October to 3rd of November (Deepavali, Sultan birthday, and weekend); testing resumed on 4th of November with 4 additional participants then 4 more on the next day on 5th of November. Of the 11 participants, 7 were male and 4 were female.

- Evaluation Tasks

The users are tasked with completing a series of tasks within the prototype website. The task given are listed as shown:

1. Open the prototype website
2. Access account creation (no actual registration)
3. Goes into Buy section for real estates
4. Add a favorite estate
5. Expand Key Account Executive job listing (Accounting/Finance)
6. Find Transportation/Logistics job subcategories
7. Open product posting page
8. See people for hire on plumbing
9. View latest local events posts
10. Checkout comment section on the top post in general discussion
11. Open page for posting new discussion

12. Check out James Walters' service from the home page

13. See favorited items

14. See your cart

5.2.4 Results

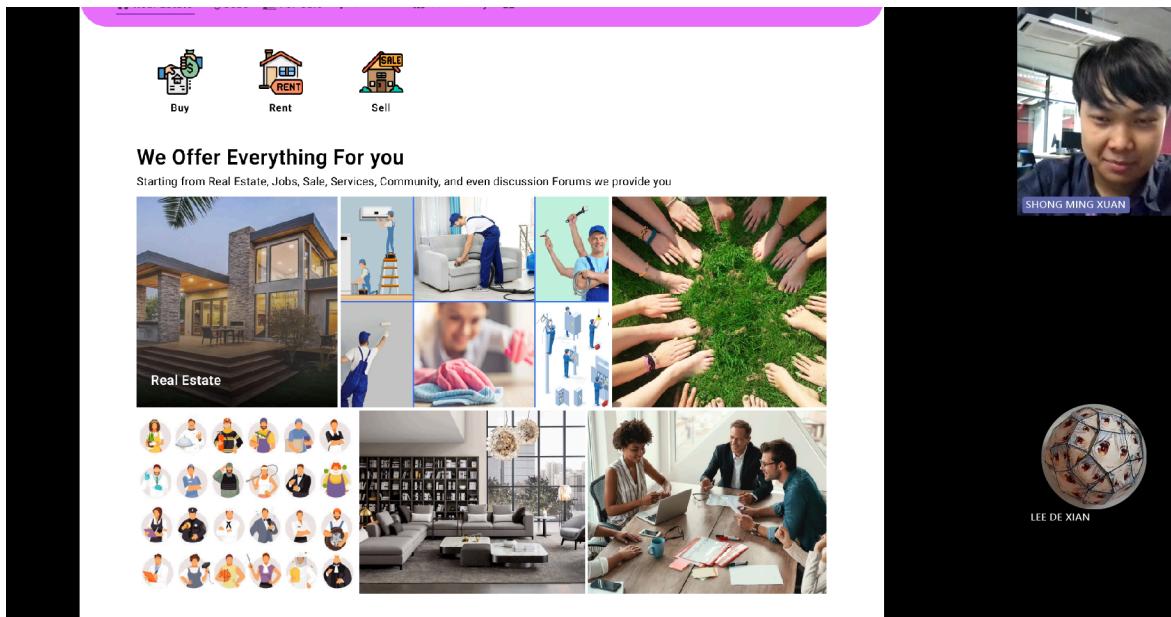


Figure: One of the participants

The results are collected and plotted on a table with the tasks completed by each of the participants. The results are displayed in a table below:

ID Tasks	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Participant 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Participant 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Participant 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Participant 4	✓	✓	✓	✓	✓	-	✓	-	✓	✓	✓	✓	✓	✓
Participant 5	✓	✓	✓	✓	✓	-	✓	✓	✓	-	-	✓	✓	✓
Participant 6	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓
Participant 7	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	-	✓	✓
Participant 8	✓	✓	✓	✓	✓	-	✓	-	✓	✓	✓	✓	✓	✓
Participant 9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Participant 10	√	√	-	-	√	-	√	√	√	√	√	√	√	√
Participant 11	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Success	11	11	10	10	11	6	11	8	11	10	10	10	11	11
Completion (%)	100	100	91	91	100	55	100	73	100	91	91	91	100	100

Based on the results shown above, the overwhelming majority of tasks were completed as task 1, 2, 5, 7, 9, 13, 14 were successfully completed by all participants. There are 5 tasks where one participant couldn't complete, which are task 3 (goes into the buy section for real estate), 4 (add favorite estate), 10 (checkout comment section), 11 (open post new discussion), and 12 (James Walters' service). A common misstep is on task 8 (plumber for hire), while the highest failure rate is task 6 (Find transportation subcategory).

5.3 Heuristic Evaluation

5.3.1 Introduction on Heuristic Evaluation

Heuristic evaluation is a usability inspection method used to identify potential design flaws of a user interface in a system on meeting its usability goals. This method will involve having experts who are in the field of profession that is related to the system that are being tested. They will take part in evaluating the system to provide insights based on their expertise making it aligned with the usability goals of the system. The prototype for a new Craigslist website serves as an overhaul to the aged design language of the current website while still enabling users to perform tasks on the website. A heuristic evaluation on the prototype was conducted on the 4th of November with 3 experts. The experts are tasked to evaluate the prototype to ensure that it meets the design principles which maps with the guidelines set.

The evaluation process lasts for a total of 2 hours and 35 minutes hosted on Microsoft Teams where experts evaluate the Craigslist website prototype against the usability goals. The findings gathered from the result of the evaluation done alongside additional recommendations from the experts are jotted down.

5.3.2 Heuristic Guideline

These guidelines are made as a general guide for the experts on what to look out for that align with the final strategies.

- Visibility: Ensure the website is continuously informing users about their actions registration to ensure the user experience is responsive.
- Consistency: Maintain uniformity throughout the website in terms of design, terminology and functionality to be as predictable as possible.
- Error Prevention and recognition: Prevent user errors through proactive measures with feedback if errors do occur.

5.3.3 Findings

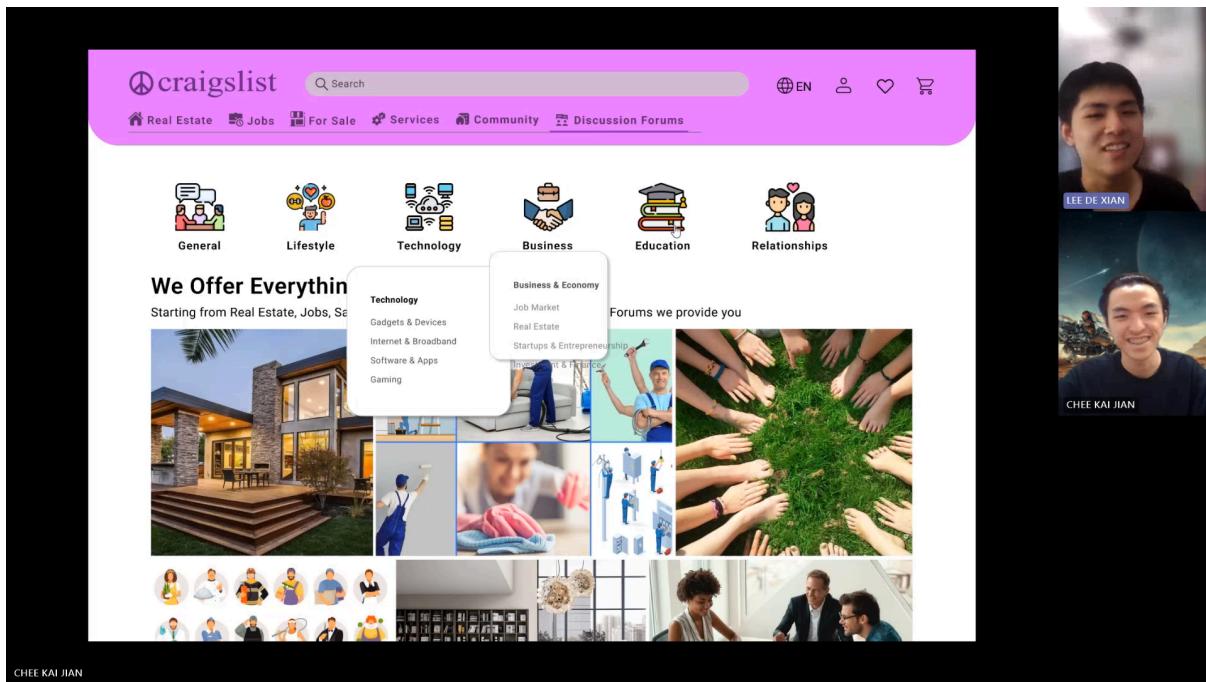


Figure: Chee Kai Jian test

Reviewer 1: Kai Jian

1. Lack of feature

Issues Description	Location	Severity	Recommendation
No search menu design	Everywhere	5	Create a simple search UI when prompted for the general idea of how a search bar is designed
No user profile	Profile Page	4	I understand that this is a design prototype and lack login function but there also should be a dummy account that redirects me to the profile page to get an idea of how it looks

2. Match between system and real world

Issues Description	Location	Severity	Recommendation
Buy and Sell is kind of conflicting when the buy section has its own dedicated posting, which puts Sell as a confusing inclusion	Real Estate categories	3	Either rephrase the Sell category or just remove it as a redundancy
Poor choice of certain icon as cogs are often associated with settings, therefore using it feels conflicting to the norm	Service tab	2	Replace with more commonly understood icons like using a silhouette of a person to signify services

3. User Control and Freedom

Issues Description	Location	Severity	Recommendation
No undo or remove button on wish list	Wishlist/ liked	4	Give user freedom to remove added items
Lack back button	Everywhere	3	Put a arrow point to the left to indicate a backward buttons to the previous page.x

4. Consistency and Standards

Issues Description	Location	Severity	Recommendation
Misalignment of subcategories between different categories	Category menu	2	Create a concrete alignment standard to follow throughout all the sections
A single section of the main page in favor of a zig zag button design that's visually unappealing	Main Menu	3	Pick one design and have others follow suit

5. Recognition Rather Than Recall

Issues Description	Location	Severity	Recommendation
Overcomplicated image used for main menu	Main Menu	2	Choose images that doesn't involve the combination of various other image

Summary of Findings

Major Issues (Severity 3-5)

1. No search menu design (Severity 5)
2. No user profile (Severity 4)

3. Redundant subcategories (Severity 3)
4. No undo buttons on wish list (Severity 4)
5. Lack back buttons for navigation (Severity 3)
6. Unappealing design choice (Severity 3)

Minor Issues (Severity 1-2)

1. Poor choice of icons
2. Misalignment of buttons
3. Overcomplicated image

Recommendations Priority

High Priority (Address Immediately)

1. Create a mock search menu design
2. Have a dummy account for user profile design
3. Add a remove/ undo button for removing items from wish lists

Medium Priority

1. Remove or repurpose Sell subcategory in Real Estate
2. Add back buttons on top left corner of a page like other websites
3. Pick top or bottom for button layout in the service section in main menu

Low Priority

1. Replace icon with more recognizable ones
2. Pick top or bottom for button placements
3. Choose more representative images rather than an amalgamation of one

Additional Notes

The prototype that I had tested lacks a lot of mock design that leaves to be unfulfilled, the overall design goals are defined but still leave a lot to be desired. The prototype is definitely moving on the right track but still require more polishing work to be done.

Sign – off



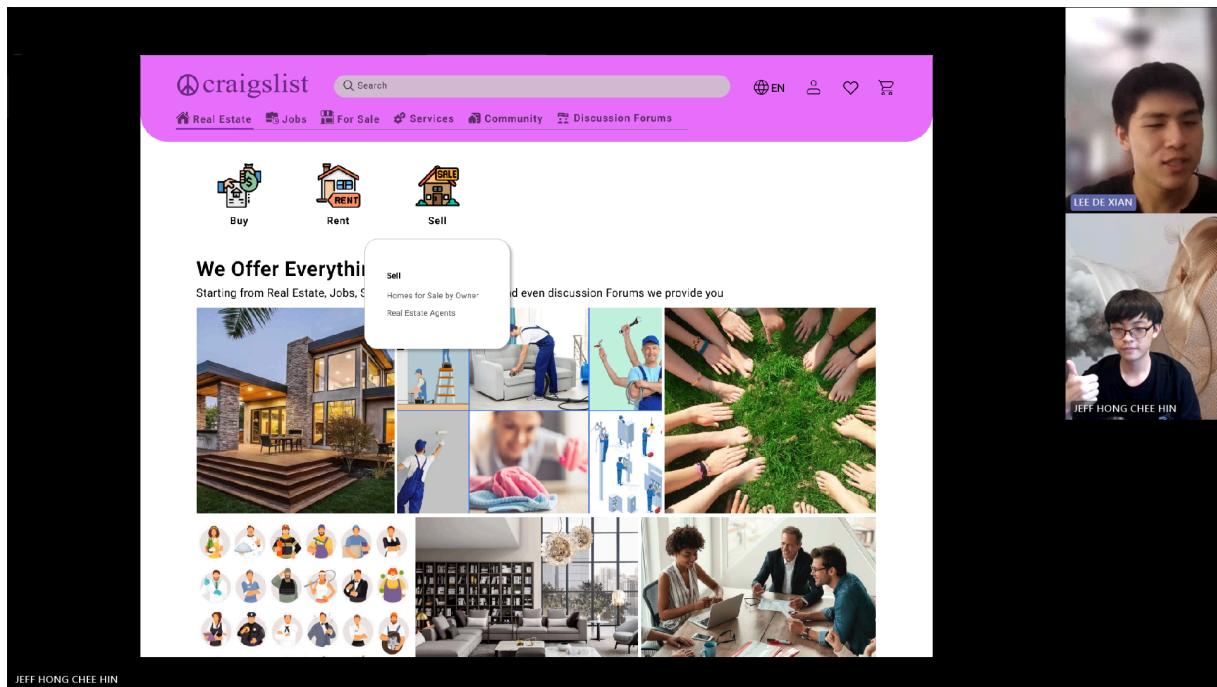


Figure : Jeff Hong test

Reviewer 2: Jeff Hong Chee Hin

1. Visibility of System Status

Issues Description	Location	Severity	Recommendation
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Slow Animation in some transition	Everywhere	3	Shorten animation or remove drop down menus
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2. Match between system and real world

Issues Description	Location	Severity	Recommendation
Questionable inclusion of Sell option when Buy + Posting already exists?	Real estate	3	Remove Sell subcategory
Missing slider indicator	Multiple segments	4	Add buttons or directional arrows to indicate there's more to see

3. User Control and Freedom

Issues Description	Location	Severity	Recommendation
Lack QoL redirect links to give better freedom to users	Real estate	1	Add redirect links to online map like Google Maps or Apple Maps

4. Consistency and Standards

Issues Description	Location	Severity	Recommendation
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Alternating designs within the same sector is a questionable design as its very disorienting	Main Menu	2	Either opt for top or bottom, not alternating between them
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5. Recognition Rather Than Recall

Issues Description	Location	Severity	Recommendation
Multiple dropdown menus can and will remain at the same time cluttering the screen	Any subcategories sliders	4	Create a limit of 1 dropdown menu per page

Summary of Findings

Major Issues (Severity 3-5)

1. Missing Slider indicator (Severity 4)
2. Slow animation and transition (Severity 3)
3. Hard-to-understand terms used with each other (Severity 3)
4. Clutter of dropdown menus can easily form (Severity 4)

Minor Issues (Severity 1-2)

1. No redirect links to associated address

2. Inconsistent button layout causing visual confusion

Recommendations Priority

High Priority (Address Immediately)

1. Add visual cues for a slider (i.e. buttons or arrows)
2. Create checks that limit one dropdown menu per page

Medium Priority

1. Speed up or remove animations on certain aspects of the design
2. Use a better-defined naming scheme and remove conflicting categories

Low Priority

1. Add links to online map services of the property being viewed
2. Deploy a consistent alignment of buttons

Additional Notes

The website does have most of the features expected catered to the uses of Craigslist. There are still lots of room for improvement however, as it is apparent that the prototype is slow and overall feels unsatisfying to use.

Sign – off

A handwritten signature in black ink, appearing to read "desh".

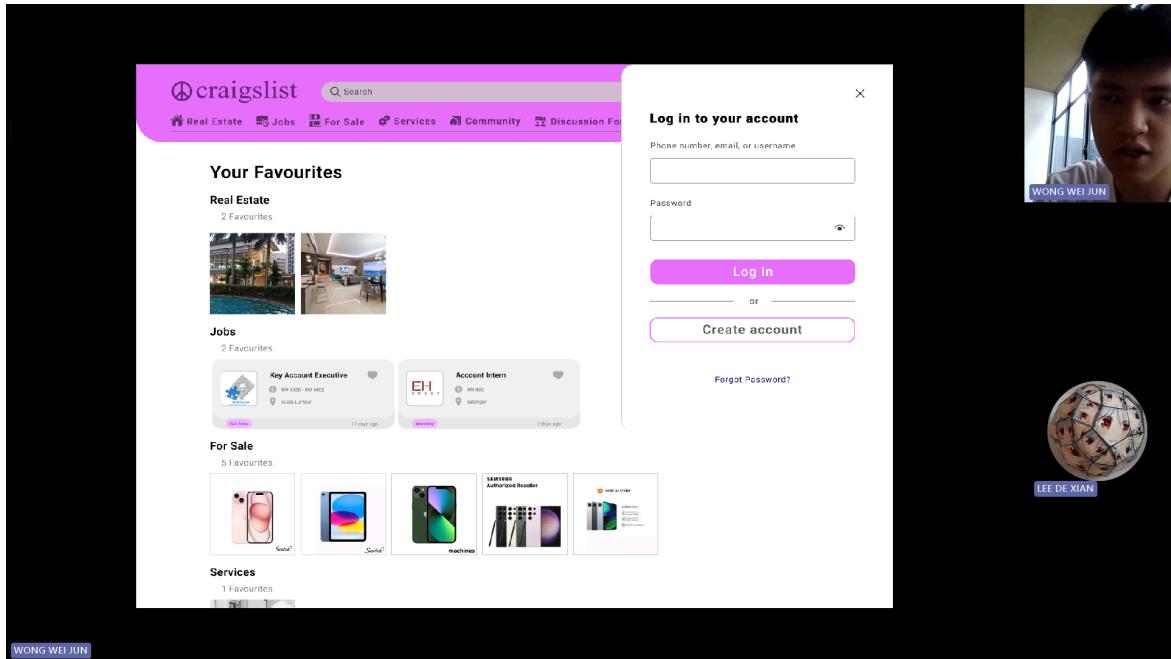


Figure: Wong Wei Jun test

Reviewer 3: Wei Jun

1. Lack of features

Issues Description	Location	Severity	Recommendation
No filters for real estate browsing	Real estate	4	Add a filter function like that of phone/tablet category with tick boxes
No design for a search menu	Search bar	4	Have a mock design of a search menu for a general design structure

2. Match between system and real world

Issues Description	Location	Severity	Recommendation
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Missing slider indicator that results in user missing	Multiple section	3	Add indicators on their presence with buttons on the side or add a slider at the bottom
Unconventional use of cogs as Services icon, which normally are associated with settings	Service tab	1	Replace image with more suiting icons such as blank person avatar

3. Consistency and Standards

Issues Description	Location	Severity	Recommendation
Inconsistent filter design	Multiple categories	4	Pick one design for every product/ service filter for the whole website to reduce confusion

4. Recognition Rather Than Recall

Issues Description	Location	Severity	Recommendation
Dropdown menus remain open when returning	Subcategories	2	Make dropdown menus closes itself after moving to the next page

Summary of Findings

Major Issues (Severity 3-5)

1. No filter for real estate browsing (Severity 4)
2. No search menu designs (Severity 4)
3. Missing slider indicators (Severity 3)

4. Inconsistent filter design (Severity 4)

Minor Issues (Severity 1-2)

1. Unfitting uses of icons
2. Dropdown menus remain expanded even after leaving page

Recommendations Priority

High Priority (Address Immediately)

1. Add a filter sidebar for quicker sorting of property listings
2. Create a mock design of search menu
3. Streamline the design of filter menu to reduce complication

Medium Priority

1. Add vertical sliders or side buttons to indicate scrolling

Low Priority

1. Replace icon with more widely recognized ones like a blank avatar
2. Automatically collapse dropdown menu when losing focus

Additional Notes

This prototype shows a general idea of the way forward of modernizing and fixing Craigslist website design. Though there are a lot of room for improvement as it is obvious that this prototype is an early build.

Sign – off

A handwritten signature in black ink, appearing to read "S. J. S." or a similar variation.

5.3.4 Impact

In the heuristic evaluation done by the 3 experts, there are several issues that are recurring issue that are addressed with recommendations alongside. This heuristic evaluation offers a range of suggestions on improving and streamlining the user experience. Here's a list of the things in the prototype that should be addressed and improve impactfully:

- Create a design for a search function
- Add filters for real estate browsing
- Standardize designs (i.e. Filter) across categories
- Add arrows or buttons to indicated sliding functions
- Replace complex image with simpler, borderless ones
- Shorten or remove long-winded animations
- Clarify confusing category names
- Add links to online maps for location-based items
- Replace misleading icons with better representative ones
- Ensure dropdown menus close when user navigates away

6 Reference

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3. *Moderated Testing 101: When and why you should use it.* (n.d.).
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5. Collegedunia. (2022, December 30). *Ethnography: Advantages & Disadvantages.*

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7 Minutes of Meeting

Meeting Title	Details - Stage 1 and Stage 2
Date	3 September 2024
Time	9 PM - 10 PM
Venue	Microsoft Teams
Facilitator	Ooi Yin Yao
Participants	Ooi Yin Yao (TP074427), Angelina Leanore (TP072929), Lee De Xian (TP068265), Ryan Tan Toon Yua (TP067938)
Discussion Points	Details
Stage 1: User, Tasks, and Environment Analysis	
Stakeholder Analysis	Discussed the key stakeholders and analyze roles using the Mendelow's Matrix
Data Gathering	Agreed to use questionnaires (via Microsoft Teams) and ethnographic (Observation) interviews as primary data collection methods.
User Profiling	Focus on demographics such as age, gender, location and website usage experience to inform user profiling.
Decisions Made	Finalized stakeholder roles and data gathering method. Assigned Ooi Yin Yao to design the questionnaire and conduct ethnographic interviews.
Action Items	<ol style="list-style-type: none"> Assigned Ryan to finalize and distribute the questionnaire. Assigned YinYao to schedule and conduct ethnographic interviews.
Stage 2: Usability Goals	
Identifying Usability Goals	Outlined primary usability goals focusing on

	learnability, memorability, and error prevention.
Key Consideration	Emphasized the importance of intuitive navigation and implementing features that reduce user errors.
Decisions Made	Defined usability goals aligned with enhancing learnability, memorability, and error prevention.
Action Items	<ol style="list-style-type: none"> 1. Assigned Angelina to draft usability goals document. 2. Begin mapping out design changes to address learnability, memorability, and error prevention.

Minutes of Meeting - Stage 3: Design and Prototype

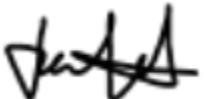
Marketing Title	Stage 3 - Design and Prototype
Date	20 September 2024
Time	9 PM
Venue	Microsoft Teams
Facilitator	Angelina Leanore
Participants	Ooi Yin Yao (TP074427), Angelina Leanore (TP072929), Lee De Xian (TP068265), Ryan Tan Toon Yuan (TP067938)
Discussion Points	Details
Parallel Design Review	4 parallel design options were presented focusing on layout, visibility, and user interface elements.
Design Evaluation	Based on peer reviews, Design 3 was rated the best for visibility, readability, and consistency, and followed by Design 4 for engagement.
Participatory Design - Card Sorting	Results from card sorting were discussed to determine optimal information architecture. Categories like Real estate, Jobs, For Sale, and Services were organized based on user preferences.
Decisions Made	Choose parallel design 3 for the prototype, finalized layout preferences, color palette, font, and menu placement.

Action Items	<ol style="list-style-type: none"> 1. Assigned Angelina to create the prototype based on Design 3 2. Apply the selected layout, color, and font choices in the prototype.
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Minutes of Meeting - Stage 4: Formative Evaluation

Marketing Title	Stage 4 - Formative Evaluation
Date	25 October 2024
Time	9 PM
Venue	Microsoft Teams
Facilitator	Lee De Xian
Participants	Ooi Yin Yao (TP074427), Angelina Leanore (TP072929), Lee De Xian (TP068265), Ryan Tan Toon Yua (TP067938)
Discussion Points	Details
Decide Framework	Reviewed the decide framework for structured evaluation, focusing on learnability, efficiency, memorability, and error prevention.
Usability Testing and Heuristic Evaluation	Decided to conduct usability testing with 10 users and heuristic evaluation with 3 experts.
Practical and Ethical Issues	Discussed participant selection, time constraints, and equipment needs. Emphasized user consent, privacy, and data security during evaluation
Decisions Made	Established goals and questions for usability testing, selected evaluation methods, and addressed ethical considerations
Action Items	<ol style="list-style-type: none"> 1. Assigned Lee De Xian to recruit participants for usability testing. 2. Schedule usability testing sessions and heuristic evaluation.

8 Workload Matrix

Stage	Ooi Yin Yao TP074427	Ryan Tan Toon Yuan TP067938	Lee De Xian TP068265	Angelina Leanore TP072929
Stage 1: User Requirements	100%			
Stage 2: Usability Goals and Competitive Analysis		100%		
Stage 3: Design and Prototype				100%
Stage 4: Testing			100%	
Signature				

9 Gantt Chart

PROCESS	Timeline													
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
Schedule														
Project Proposal														
Introduction														
Current Website														
Objectives														
Problem Statements														
Solutions														
Gantt Chart														
Stage 1: User Requirements														
Stakeholder Analysis														
Data Gathering and Analysis														
List of User Requirements														
Task Analysis														
Stage 2: Usability Goals and Competitive Analysis														
Identifying Usability Goals														
Design Principles Mapping with the Usability														
Competitive Analysis														
Stage 3: Design and Prototype														
Parallel Design														
Peer-to-Peer Evaluation														
Participatory Design - Card Sorting														
Style Guide														
Screenshot of Final Prototype Design														
Design Justification(Design Rationale)														
Stage 4: Formative Evaluation														
Decide Framework														
Usability Testing														
Heuristic Evaluation														
Final Submission														
Submission														