# Human Computer Interaction – IT3060

# Assignment 01 – User Research Techniques

Project Title – Riyasewana Website
https://riyasewana.com/

Group Number – 2024–WE–S1-66

**Details of the Group Members:**

| | Registration No | Name | Workload Distribution |
|---|---|---|---|
| 01 | IT22340832 | WANIGASINGHE C.P | <ul><li>Project Description</li><li>Seller Persona</li><li>User 1 & 2 videos</li><li>Usability Issues</li></ul> |
| 02 | IT22339324 | WIJERATHNE M.A.S.M | <ul><li>Document Preparation</li><li>Scripts for contextual inquiry for admin</li><li>Conclusion description</li><li>User video</li><li>Usability Issues</li><li>Usability Issues Identified Based On Contextual Inquiry</li></ul> |
| 03 | IT22890528 | WICKRAMASURIYA C.I | <ul><li>Usability Issues</li><li>Script for seller contextual inquiry</li><li>Video - Character of the vehicle buyer</li></ul> |
| 04 | IT22345578 | GALAPPATHTHI A.G.R.S | <ul><li>Scripts for contextual inquiry for buyer</li><li>Usability Issues</li><li>Usability Issues Identified Based On Contextual Inquiry</li></ul> |
| 05 | IT22031020 | HERATH H.M.T.P | <ul><li>Document Preparation</li><li>Admin & Buyer Personas</li><li>Usability Issues</li><li>Gantt Chart</li></ul> |

# Contents

# 1. Project Description

Due to the digitalization, modern people are using web services to find out the things they need from the outside world where they can easily buy & sell whatever they want from wherever they are. They use websites, mobile applications as well as web applications to find their needs from the web. Same goes to the online businesses that have built a perfect place in the market space.

In the meantime, commonly there are applications, websites that have a proper flow, prototype, color usage as well as user-friendly interfaces. Similarly, there are applications and websites that have no said proper flow, prototype, color usage as well as user-friendly interfaces.

In this assignment, we have aimed at a website which does have usability issues and redesign them in a proper way. Therefore, we have chosen Riyasewana.com as our web application and we have re-created the CRUD (Create, Read, Update and Delete) operations in an order.

Starting from the homepage, there must be a common search bar which can find any type of vehicle by searching. Then the whole website has excessive white space and a cluttered navigation bar that a user cannot easily find a vehicle. When discovering the usability issues, we have also found that the website does not have a visual hierarchy.

Then we have found that Riyasewana.com was made with poor alignments and spacings. When creating the website, it has not given a clear focus to build it in an attractive way. The navigation menu was overloaded with the options.

Additionally, we have seen that when placing ads, there is no proper way used. Ads have been misplaced and there's a complex way to place an ad too.

But we have noticed that pages with features that should be added to an online vehicle selling business. The website has added proper Login page to a customer to login, MyAds page to a seller to see what are the ads he/she posted, a Leasing Offer page for users to see what are the latest leasing offers, Contact Us page to display the contact details as well as a contribute page for the user who would like to contribute some monetary funds to the website.

We have chosen this website to re-create this web application with re-correcting the usability issues and arranging them in a user-friendly way. Therefore, by updating this website as our assignment we will aim at enhancing our professional portfolio.

## 2. Alternative Considered

In our group each member finds 5 web application

- Craigslist          - https://craigslist.org/
- Yale School of Art - https://www.art.yale.edu/
- Toronto Cupcake - https://torontocupcake.com/index.html
- Arngren          - http://arngren.net/
- Where To Eat     - https://www.where2eat.com/

## 3. User group identified

In this web application have user group identifiers. Users are classified in groups. For that we have selected three users for the project.

| New User | ● Buyer |
|---|---|
| Actual Users | ● Admin |
| | ● Seller |

## 4. Selected Personas

1. Seller Persona



Seller Persona

**BIO**

Charuka Wanigasinghe is a student studying at SLIIT as well as an intern working at GTN Tech as a System Engineer. Additionally he works as a seller in Riyasewana.com (which is a vehicle and spare parts selling and buying platform) as his part time employment. He is selling vehicles to his contacts he made through the university and his previous employments. He has a good client base as well as a good selling profile in past couple of years. He does his tasks with a good understanding and he has a good marketing skill in selling vehicles to his clients. It's easy for him to handle it since it's an online vehicle & spare parts selling platform.

Name :- Charuka Prasanga

Age :- 25 Years

Work :- Riyasewana.com

Family :- 4 Members

Location :- Malabe

Occupation :- Seller

**GOALS**
- Good market place.
- Enhance client-base
- Develop the user experience of clients.
- Keep attention on new market trends.
- Profit maximisation
- Find new clients by doing new sales.

**FRUSTRATIONS**
- Advanced customer requirements.
- Rare User Satisfaction
- Lack of knowledge of users about vehicles and spare parts.
- Technological innovations and advanced features.
- Negative client feedbacks

**MOTIVATIONS**
- Client attention for the new trends of vehicles and spare parts.
- Technological Innovations with new gadgets with attractive designs.
- Positive client feedbacks and new clients.

2. Admin Persona



Admin Persona

**BIO**

Maleesha Wijerathne, a first-year Business Management student, is the Admin of Riyasewana, vehicle buying and selling platform. He ensures smooth website operations, accurate listings, and seamless user experiences, leveraging his passion for marketing and technology to enhance user engagement and platform reliability.

Name        :- Maleesha Wijerathne

Age          :- 23 Years

Work        :- Riyasewana.com

Location    :- Haggalla

Occupation :- Admin

**GOALS**
- Optimize Platform Efficiency.
- Enhance User Experience.
- Stay Ahead of Market Trends

**FRUSTRATIONS**
- Technical Glitches.
- Complex User Interfaces.
- Unclear Content.

**MOTIVATIONS**
- Continuous Improvement.
- User Satisfaction.
- Technological Innovation.

3. Buyer Persona



Buyer Persona

**BIO**

Navod Induwara, a 23-year-old Business Management student, is passionate about vehicles and technology. As a frequent buyer on Riyasewana, he values a seamless online experience, where he can easily find, compare, and purchase the perfect vehicle. He appreciates detailed listings, clear images, and honest reviews, favouring efficient, hassle-free transactions due to his busy student life.

Name        :- Navod Induwara

Age          :- 23 Years

Work        :- Riyasewana.com

Location    :- Kelaniya

Occupation :- Buyer

**GOALS**
- Find the Perfect Vehicle.
- Compare Options Easily.
- Secure a Good Deal.

**FRUSTRATIONS**
- Incomplete or Misleading Listings.
- Complicated Navigation
- Unresponsive Sellers

**MOTIVATIONS**
- Convenience.
- Transparency.
- Variety.

## 5. Usability issues identified by the members

Member 1 –

- Alignment and spacing.
- Visual clutter and lack of focus.
- Overloaded navigation menu.
- Lack of instructional text.
- Form layout and spacing.

Member 2 –

- The home page is cluttered; all key elements aren't easy to focus on.
- Search filters aren't clear to new users.
- Mobile optimization is poor and frustrating.
- Major actions aren't prominent enough, thus affecting the usability.
- Lack of clear ownership and contact details may reduce user trust.

Member 3 –

- Cluttered navigation bar.
- Lack of visual hierarchy.
- Excessive white space.
- Button visibility and size.
- Field label clarity.

Member 4 –

- Poor contrast and readability:
- Cluttered Layout:
- Unclear Information Hierarchy
- Poor Space Utilization:
- Images That Are Small Or Unclear:

Member 5 –

- Redundant or Unclear Labels.
- Make Navigation Links Unclear.
- Crowded Navigation Menu.
- Absence of Visual Hierarchy.
- Unclear Call-to-Action

## 6. Scripts for contextual inquiry for 3 users

1.User Category – Admin

| Background Description of the User | Questions to ask from the user | Tasks to be given to the user |
|---|---|---|
| Maleesha is a 1st year undergraduate in Business Management. She has perfect marketing experience. Maleesha is currently finishing her degree and hopes to intern in an online marketing in the near future. | 1. Why did you suggest creating this web application?<br><br>2. How long ago did you create the web application? Since 2 or 3 years ago<br><br>3. What are the facilities you add for this web app?<br><br>4. Did customers or any user can refer to any products through this web app?<br><br>5. When we go through this web application, we have seen some usability issues. What do you think about that?<br><br>6. What are the usability issues that you have faced? While doing this, instruct the web pages one by one.<br><br>7. What kind of analytics or data collection have you implemented to track user engagement on the site?<br><br>8. How do you handle customer support and feedback on the web application?<br><br>9. What challenges have you encountered in designing the UI for different devices and screen sizes? | Post an advertisement for a vehicle on the web application. Include details such as make, model, year, price, and upload several photos.<br><br>Use the search and filter options to find a specific type of vehicle or part. Note the ease and accuracy of the search results.<br><br>Explore different sections of the web application, including the homepage, ad listings, and user profile page. Provide feedback on the navigation experience.<br><br>Update your user profile with a profile picture, contact details, and a brief description. |

2. User Category - Buyer

| Background Description of the User | Questions to ask from the user | Tasks to be given to the user |
|---|---|---|
| Tiran is a 3<sup>rd</sup> year undergraduate in Information Technology. He studied at SLIIT campus. Tiran hopes to intern in an AI in the near future. He used to purchase and sell different product of online | 1. How long ago did you start selling a vehicle using Riyasewana?<br><br>2. How many vehicles have you sold using the platform?<br><br>3. Can you explain the process you follow in listing a vehicle in Riyasewana?<br><br>4. What are the difficulties or easy ways in this process?<br><br>5. How do you normally communicate with interested buyers? Through the platform itself, by phone, or other sources?<br><br>6. Your views regarding the quality of responses you receive your questions?<br><br>7. What characteristic in Riyasewana annoys or is very useful to you?<br><br>8. If you could change or improve one thing with this site, what would it be?<br><br>9. Have you had success in selling what you have listed?<br><br>10. Do you feel that particular issues are causing success/failures in sale? | Comfortable buying/selling vehicles via online channels.<br><br>Probably sold a lot of cars previously, or works as a professional dealer.<br><br>Values speed and efficiency in communication with buyers.<br><br>Interested in the performance of listings and how to improve on them.<br><br>Wants ease of use in the interface and strong listing and communication management tools. |

3.User Category - Seller

| Background Description of the User | Questions to ask from the user | Tasks to be given to the user |
|---|---|---|
| Navod Induwara is an engineer at Colombo Dockyard, an independent activist, and a research-based blogger. He obtained his undergraduate Mechanical Engineering degree from Swinburne University and an MBA from APIIT Colombo. Navod concentrates on providing informative blogs within the industry sectors and follows up with changing legislation and facts continuously to ensure that his product—his blogs—are continuously produced. Despite the immense pressures of continuous blogging, he takes the commitment to become an innovative, competitive voice for the industry. | 1.Can you please narrate how you went about the process of purchasing vehicles through the web?<br><br>2.What brought you to Riyasewana?<br><br>3.How often do you look for a vehicle?<br><br>4.Can you walk me through how you search for vehicles on Riyasewana?<br><br>5.What filters or search criteria do you normally use?<br><br>6.How do you decide which vehicle listing to click?<br><br>7.What info is most important to you in a vehicle?<br><br>8.How do you compare listings against each other?<br><br>9.What are your biggest concerns when purchasing a vehicle online?<br><br>10.Have you experienced any difficulties or frustrations with the site?<br><br>11.Anything you wish the platform did differently or better? | Understand how different vehicles are compared by the user.<br><br>Evaluate how easily a seller can be contacted.<br><br>Identify what factors contribute to a user's trust in a listing.<br><br>How it works: User saves and revisits listings.<br><br>Have him search for, say, a used car within a certain price range. |

# 7. Video links

1. User 1 :
   https://drive.google.com/file/d/14ypbScgFI1jeDs25fAI5p4b1lRJoRxy3/view?usp=share_link

2. User 2 :
   https://drive.google.com/file/d/1dDgRqHfSdQD9EHUNItjBtCn9CfAZcS8e/view?usp=sharing

3. User 3 :
   https://drive.google.com/file/d/1lT2gzHjxFR4W9-gx-uwhQohyZsXn5iIC/view?usp=share_link

# 8. Usability Issues Identified Based On Contextual Inquiry

| Interface Name | Usability Issue | Rate |
|---|---|---|
| Home interface | ● Rejection different resolutions<br>● Unnecessary navigation<br>● Incomplete onboarding<br>● Confusing context | High<br>Medium<br>High<br>Low |
| Register interface | ● Field label clarity<br>● Alignment and spacing<br>● Cluttered navigation bar<br>● Excessive white space | Medium<br>Low<br>High<br>High |
| Ad interface | ● Required fields are not clearly distinguished.<br>● Low color contrast, reducing text readability.<br>● Small, hard-to-read font size.<br>● Excessive white space around content. | High<br>Medium<br>Low<br>High |
| Vehicle details interface | ● Poor contrast and readability.<br>● Cluttered layout.<br>● Unclear Information hierarchy.<br>● Poor space utilization | High<br>Medium<br>High<br>High |
| Payment Interface | ● Direct transfer of money<br>● Lack of information asked from the donor<br>● Selected amounts only | High<br>High<br>Low |

## 9. Time schedule (Gantt chart)

| Task Name | 00-July | 00-July | 00-July | 00-July | 00-July | 00-Aug |
|---|---|---|---|---|---|---|
| Created HCl assignment group | � | | | | | |
| Selected projects individually | | � | | | | |
| Finalized project by discussing with group members | | | ▬ | | | |
| Registered group member details | | | | ▬ | | |
| Distributed workload | | | | | ▬ | |
| Registered group details | | | | | ▬ | |
| Got group meetings and discussed group work | | | | | | ▬ |
| Started to do assignment 1 | | | | | | ▬ |
| Finished assignment 1 and submitted | | | | | | ▬ |

## 10. References

1. Continuous Assessment Specification Booklet Available: https://courseweb.sliit.lk/pluginfile.php/291243/mod_resource/content/2/2023-assignment-specification-booklet.pdf/

2. Personas Guidance Available: https://www.youtube.com/watch?v=u44pBnAn7cM

3. ikman.lk website (for the arrangement guidance) : https://ikman.lk/en

4. Human Computer Interaction Lab 4 Available: https://courseweb.sliit.lk/pluginfile.php/385261/mod_resource/content/3/2024-S2-IT3060-LabSheet-04.pdf

# 11. Appendix

- **User case diagram**
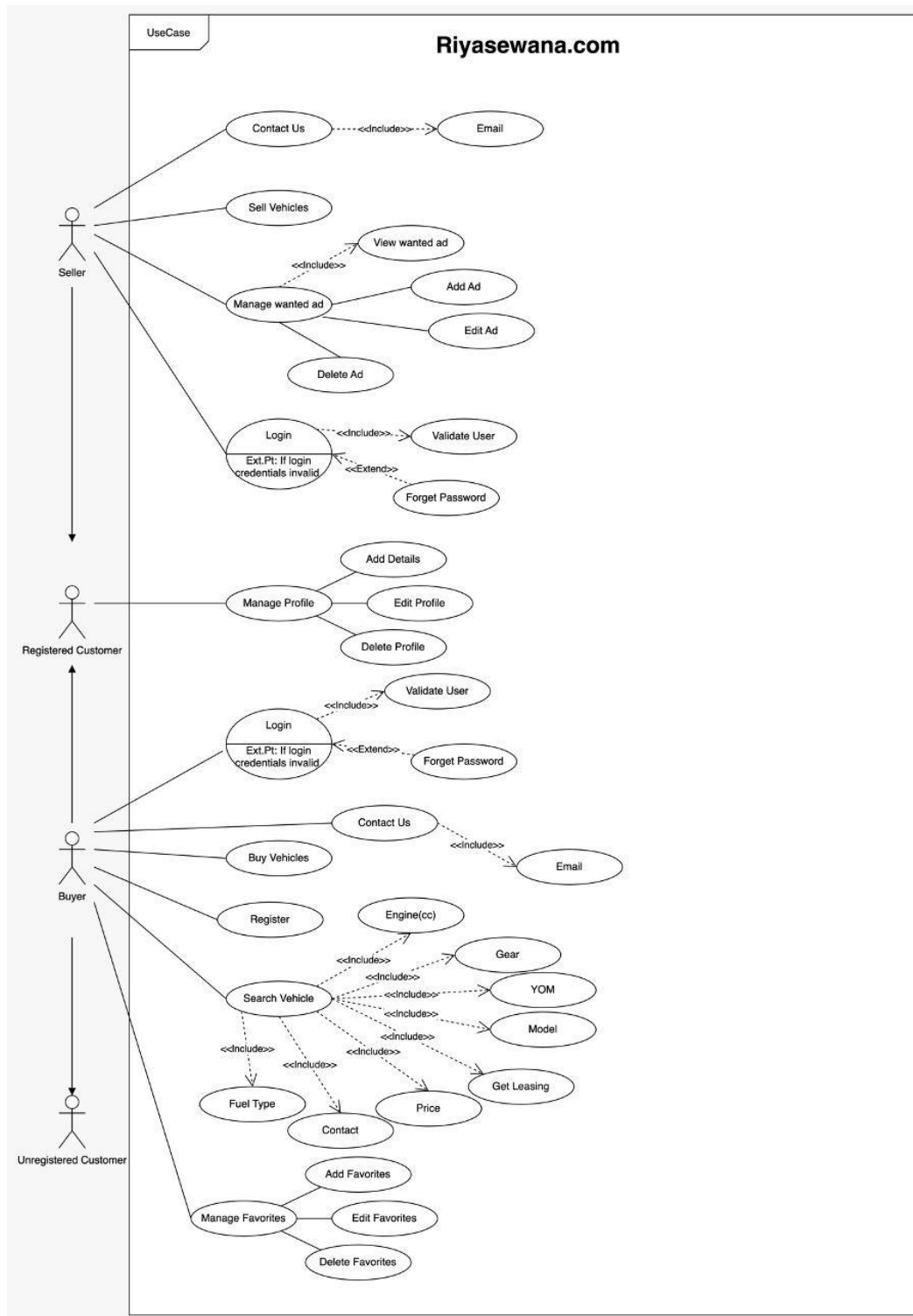
## 12. Conclusion

Our redesign of Riyasewana.com focused on huge usability improvements to make the web application much more user-friendly and visually appealing. We enhanced the user experience by improving navigation and search functionalities, reducing excessive white space, and providing a clear visual hierarchy that would easily enable visitors to find and manage vehicle listings and ads.

The improved alignment and spacing make this page more inviting and professional in its outlook. We took care of the user experience by refining pages, such as Login, MyAds, Leasing Offer, Contact Us, Contribute and more, to provide a smooth user experience and engrossing interaction.

The project solved the usability issues and strengthened our professional portfolio in terms of showing that we can effectively approach and resolve real-world practical challenges of web design.