

Version 3.0

March 10th, 2025

# Usability Testing

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**Insight Triangle | HCI 460**

# Introduction

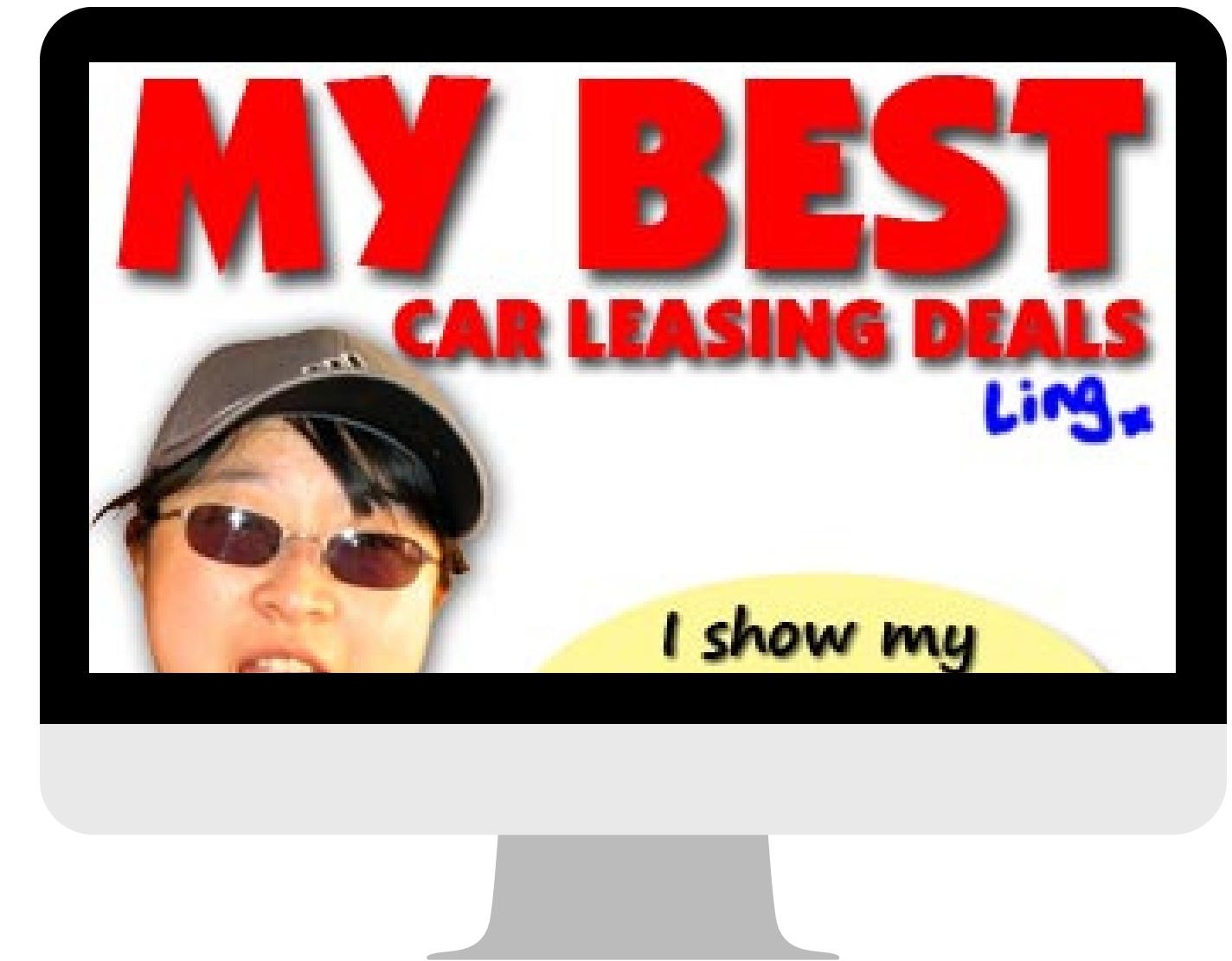
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**Website:** Lingscars.com (UK based car leasing website)

**Purpose:** Car leasing services for personal and professional use

## Services:

- Car leasing
- Blog posts about car-related topics
- Fun activities
- Car quotation and ordering

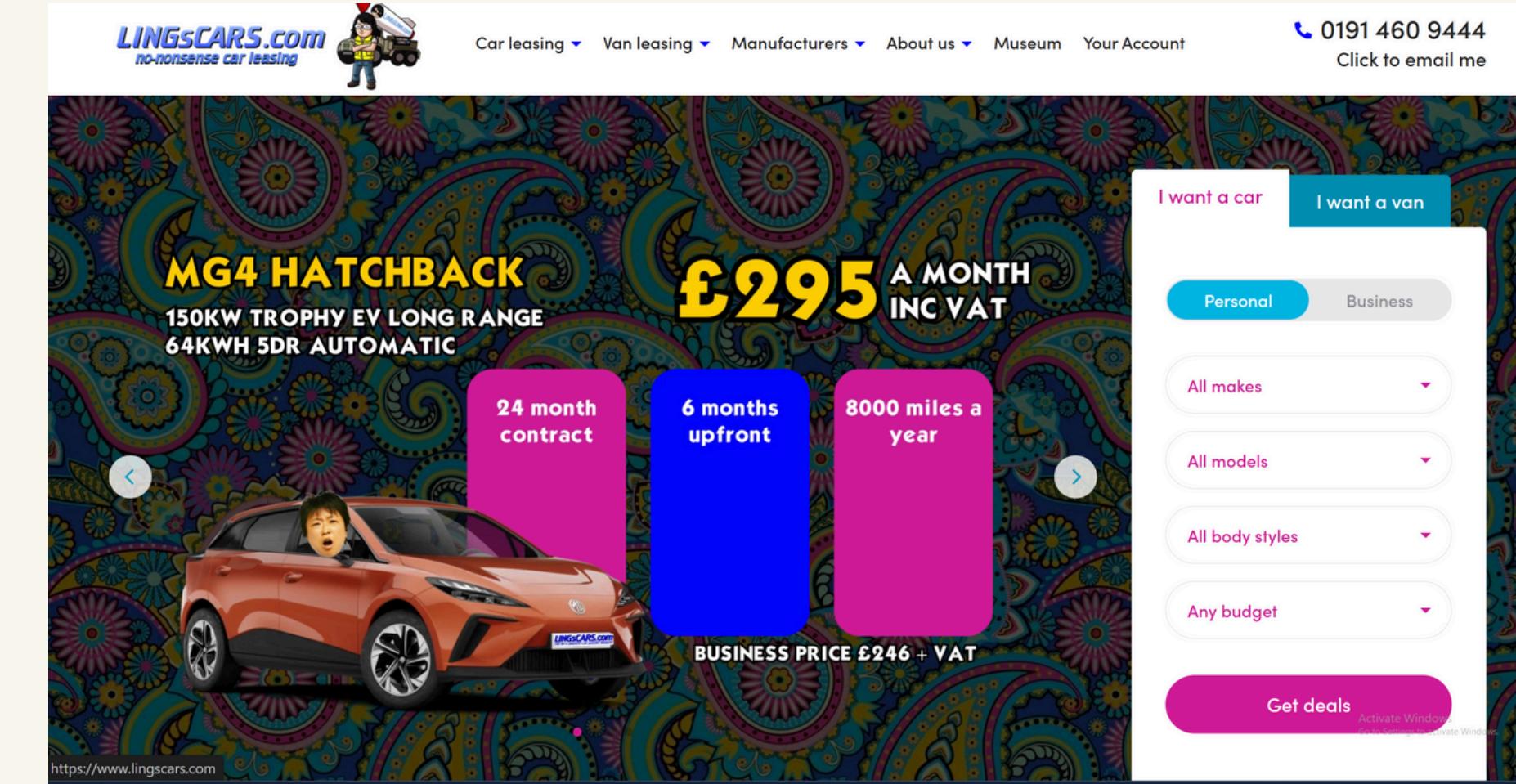


# Website versions

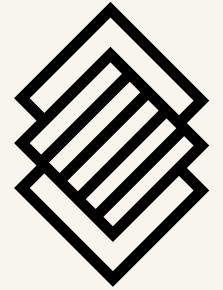
## Version 1



## Version 2



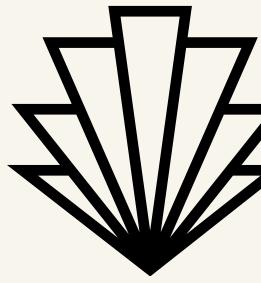
# Research Methodology



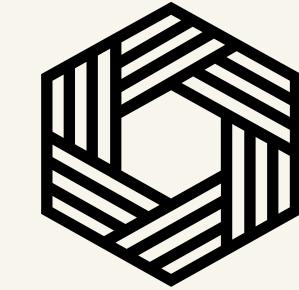
We carried out a **summative usability test** to evaluate the overall effectiveness and user experience of Ling's website.



The study employed a **between-subjects experimental design**, allowing us to compare results across different participants without repeated measures.



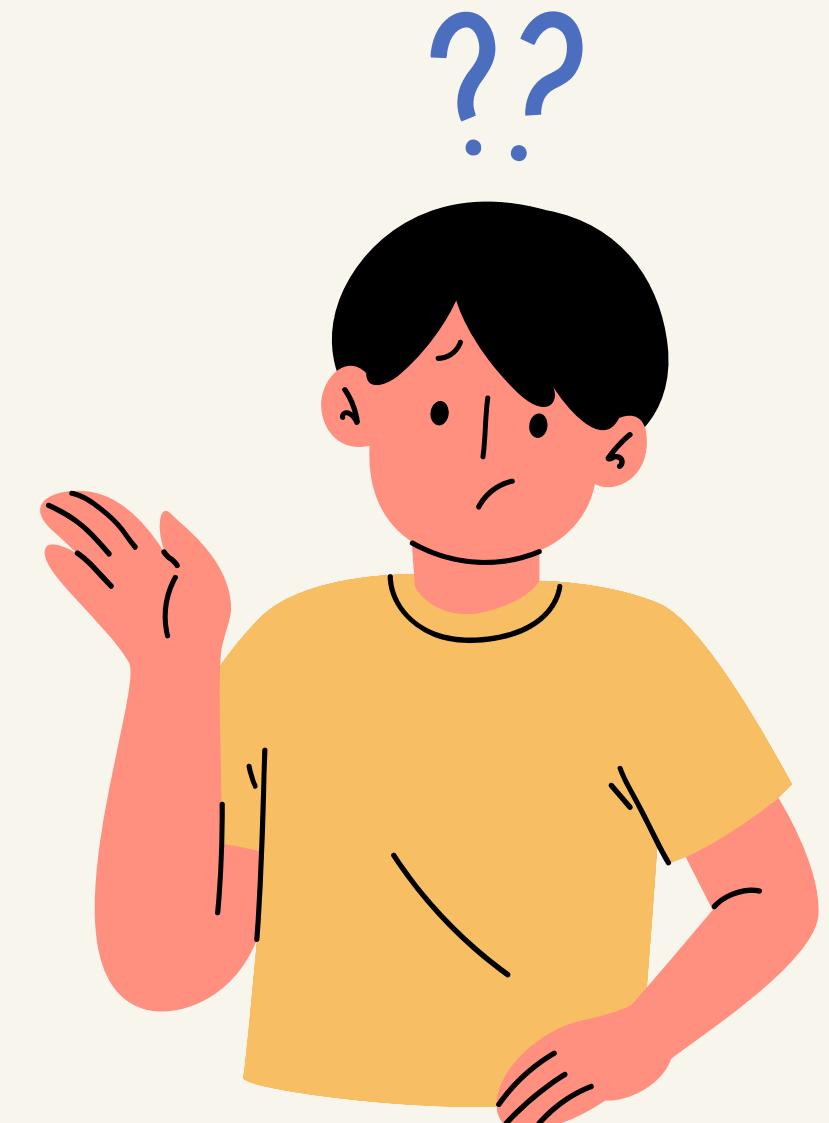
The test was administered as a **moderated remote usability test**, conducted via Zoom, where participants interacted with the website while being guided by a moderator.



This approach enabled **real-time observation and data collection**, ensuring a thorough understanding of user interactions and pain points.

# Research Questions

- 1 How easily are users able to navigate the website and complete given tasks?
- 2 What usability issues do users encounter while performing the tasks?
- 3 What detours or inefficiencies emerge in the process of completing each task?
- 4 How satisfied are users with the website's usability, speed, and functionality?
- 5 What feedback do users provide on the design, layout, and overall user interface?
- 6 How frequently do users make errors, and how do they attempt to recover?



# Heuristic Analyses

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Version 1

Against each guideline are the  
number of issues found.

Heuristic Guideline	No of issues
Aesthetic and Minimalist Design	30
Match Between the System and the Real World	9
Consistency and Standards	7
User Control and Freedom	3
Visibility of System Status	2

# Cognitive Walkthrough

Version 1

This analysis was carried on 3 intermediate tasks which consisted of 5 – 10 actionable steps each.

Four questions as described by Lewis and Riemen (1994)

1. Will users be trying to produce whatever effect the action has?
2. Will users see the control (button, menu, switch, etc.) for the action?
3. Once users find the control, will they recognize that it produces the effect they want?
4. After the action is taken, will users understand the feedback they get, so they can go on to the next action with confidence?

# Cognitive Walkthrough analysis and Severity Ratings

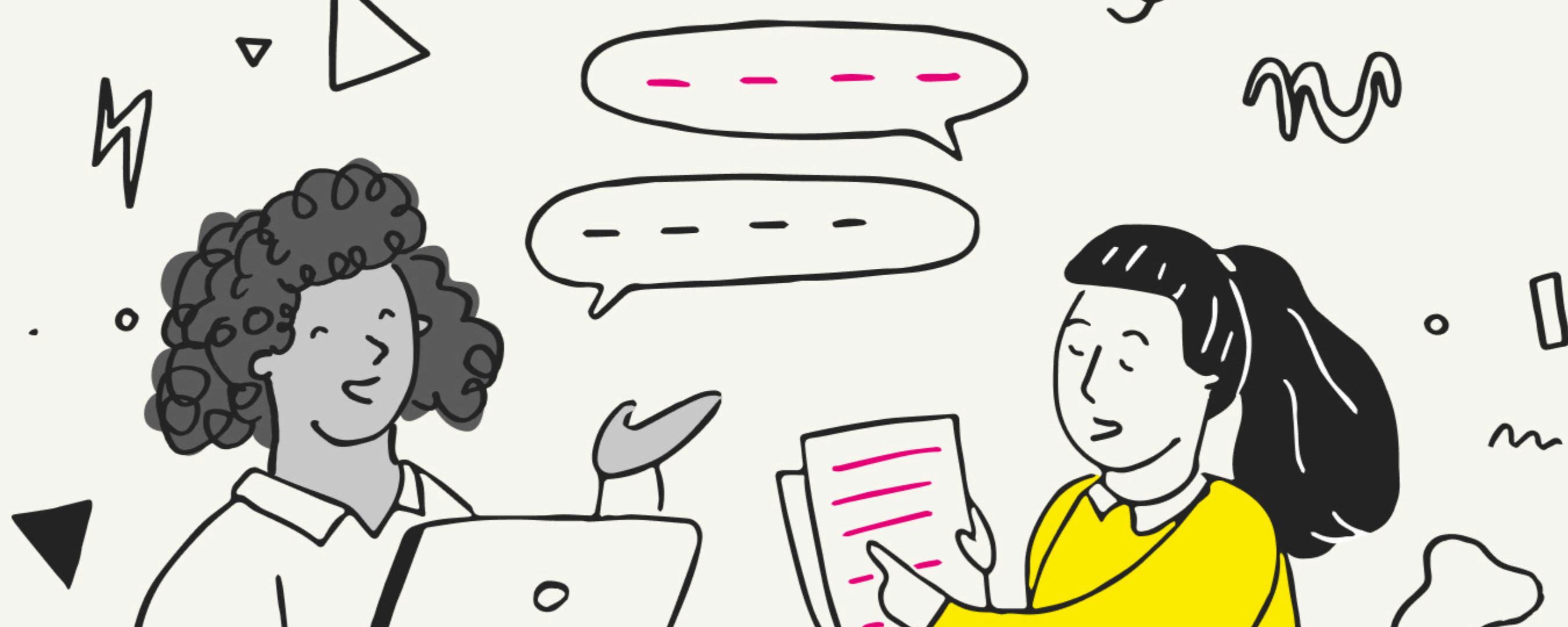
Version 1

## Rating Scale

- 0 Not a usability issue.
- 1 Does not need to be fixed unless extra time is available.
- 2 Minor usability issue.
- 3 Major usability issue and must be fixed with high priority.
- 4 The product cannot be released without fixing this issue.

Severity ratings by Jakob Nielsen

Sr.	Tasks	Successes determined	Failures determined	Severity Ratings/Reasons
1	Find a Car Lease Deal	5	1	3 (A proper button is required to guide the user into the direction of further car details)
2	Search and view a Subaru car model on Business price	4	1	2 (The usability due to the lack of prominence of live links for business prices can derail the user)
3	Request a Car Lease Quote	8	1	4 (The user cannot start the task because the left bar has no indication of live links)



# Usability Testing Methods

Version 2



# Overview

1

Participant  
Recruitment

2

Scheduling/session  
checklist

3

Moderators  
Greeting/Consent  
Statement

4

Pre-task  
Questionnaire

5

Tasks/Scenario  
presentation

6

Post - task  
questionnaire

7

Post Test  
questionnaire  
(SUS-Scale)

8

Findings and  
Recommendations



# Participation criteria/Protocol

## Who we wanted to recruit

**Objective:** Identify suitable participants for the usability study.

### Eligibility Criteria:

- Must have a valid driving license.
- Age: 18 - 40.
- Comfortable with online transactions
- English proficiency: Basic required
- Must have a reliable internet connection.

### Availability & Participation:

- Must be available for 30–45 minutes for usability testing.
- Consent for video recording required.

## Who we Recruited (Participant Screener)

**Tech-Savviness:** Ranged from basic to proficient.

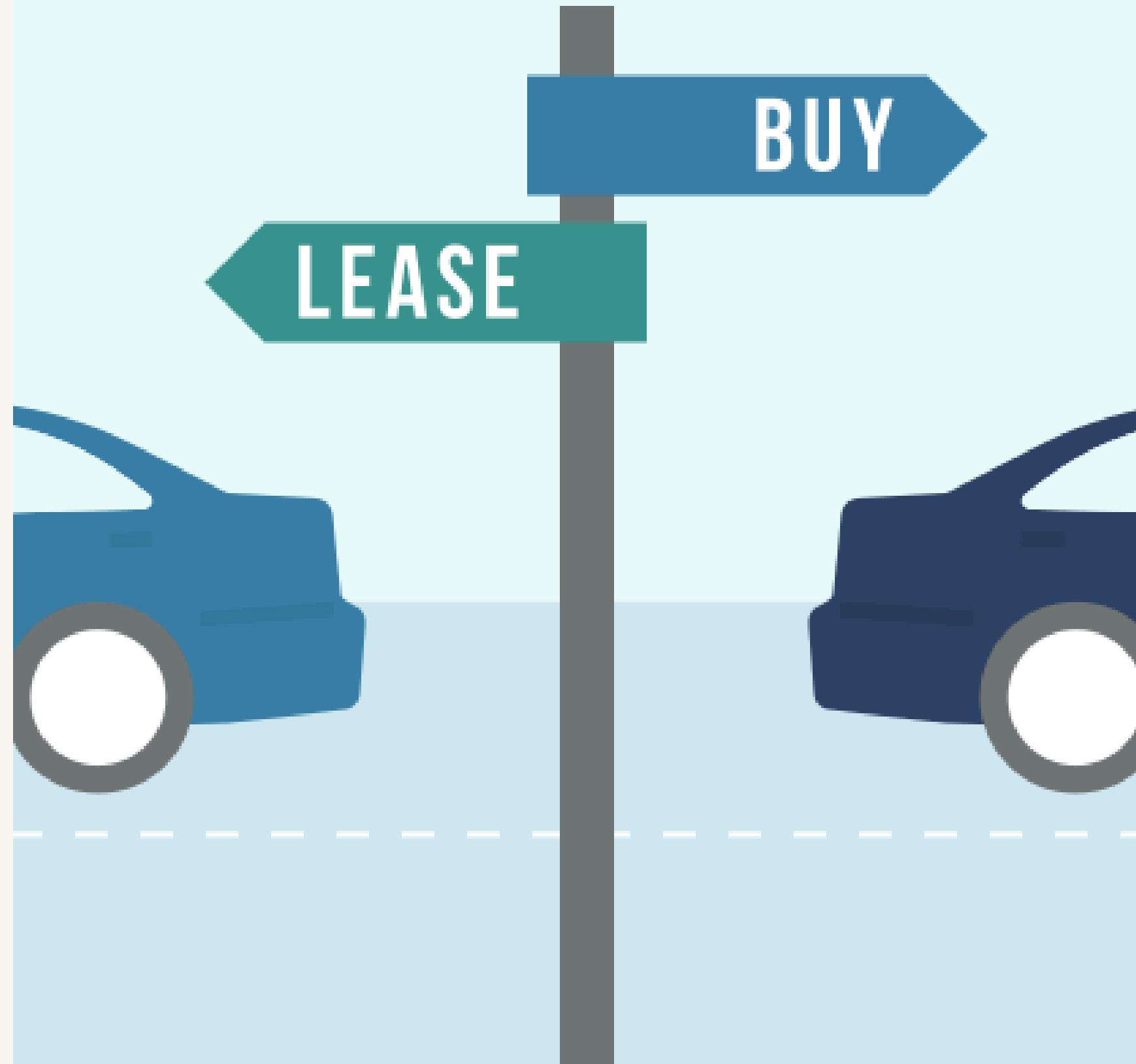
**Driving License:** All participants held a valid driving license.

**Car Leasing Experience:** Varied from minimal to frequent users.

**Age Range:** 28–40 years (5 participants).

**English Proficiency:** Basic proficiency.

Fulfilled availability and participation criteria



## TASKS

Tasks were structured to follow the happy path (ideal user journey) while allowing for exploration of potential detours or inefficiencies.

## SCENARIOS

Scenarios were designed to reflect common user goals on Ling's website, such as leasing a car for personal or business use

# Task 1

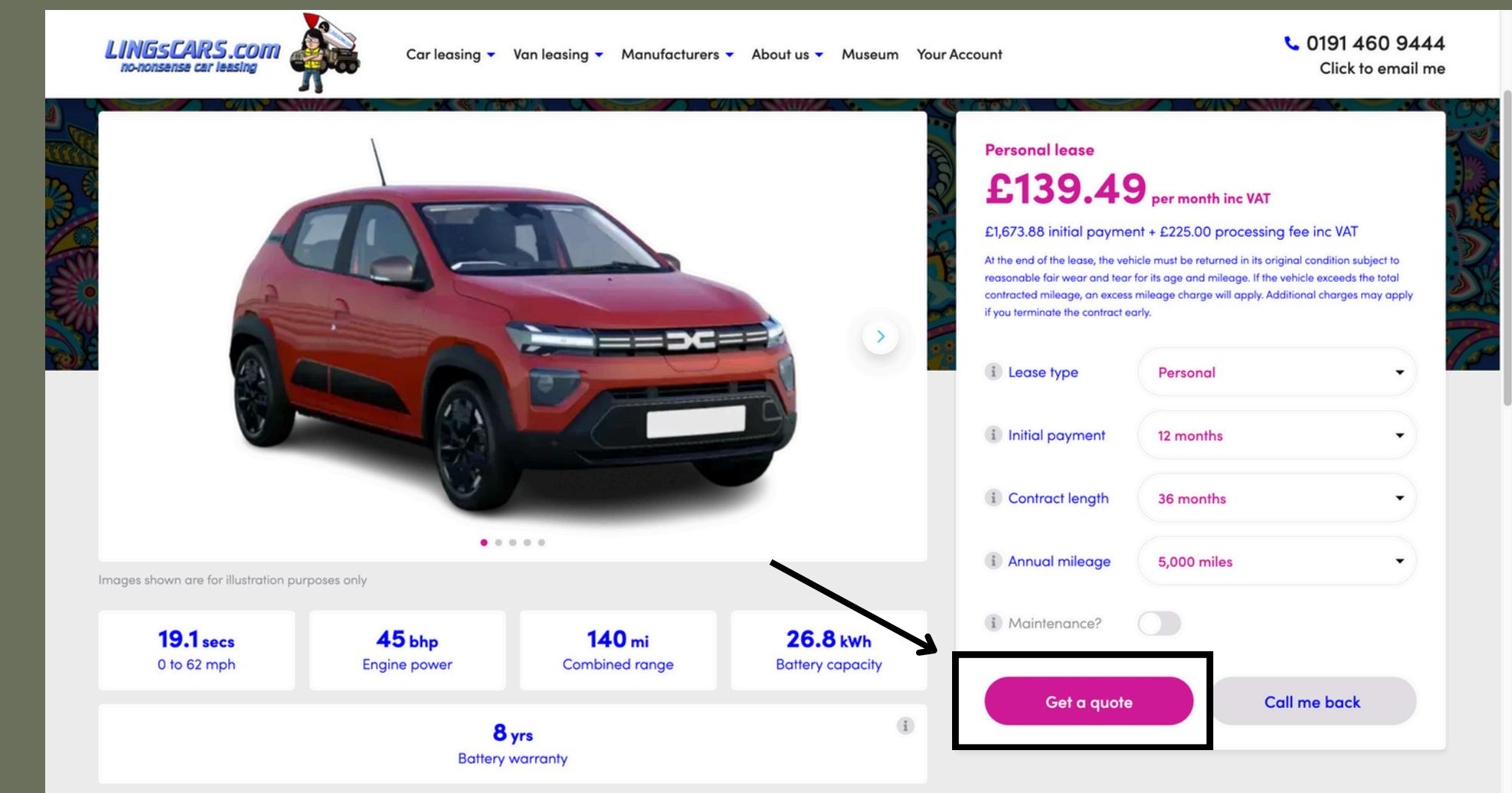
Find and order a car lease deal for the Dacia Spring

## Scenario 1

You are a university student planning a weekend trip with friends and are looking for an affordable and efficient car to lease for the trip. Since you're on a budget and want to save on fuel, you're particularly interested in an electric car. After discussing options with your friends, they recommend the Dacia Spring, an electric vehicle that runs on a battery and significantly reduces fuel costs. Your goal is to find a leasing deal for the Dacia Spring that fits within your budget for the weekend trip. Your budget for leasing the Dacia Spring for the weekend trip is 150 Euro, including rental costs and any additional fees such as insurance or charging costs.

## Task Completion Criteria

When the participant successfully reaches the leasing order page for a Dacia Spring and selects a leasing option based on their budget and mileage needs.



# Task 2

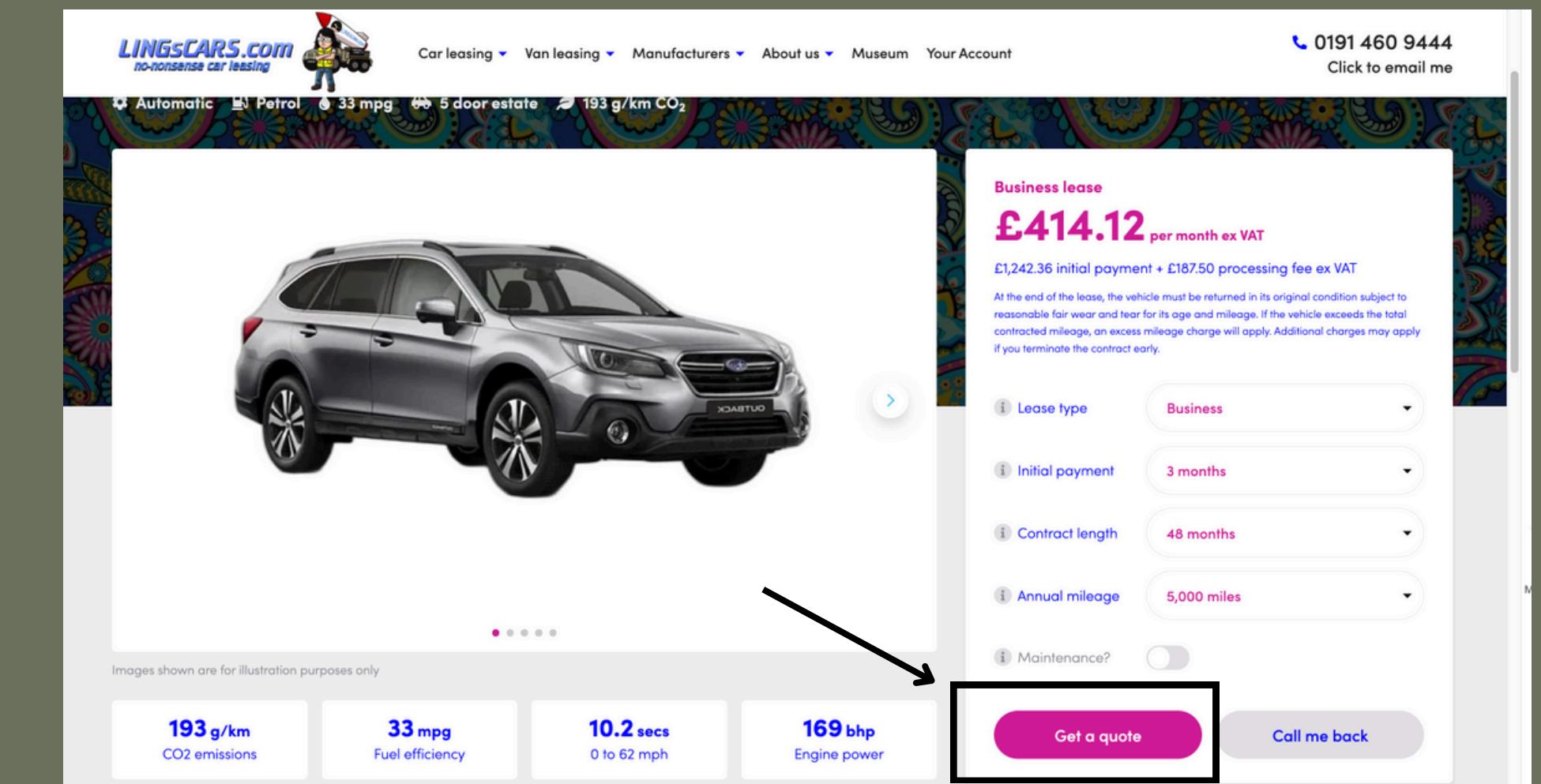
Search and view a Subaru Car Model on Business Price

## Scenario 2

As a transportation manager for a small company that provides vehicles for its sales team, your boss has asked you to research business leasing options for the Subaru Outback, as it is ideal for the rough terrains your team frequently encounters. Your budget for leasing is limited, and the goal is to find the best deal while staying within that budget. Additionally, your boss has specified that the vehicle should come with limited mileage, as the sales team doesn't drive long distances on a regular basis. Although you have existing contacts for leasing, you are tasked with comparing different options to ensure you're securing the best value. Your goal is to find a business lease for the Subaru Outback that aligns with your company's budget and mileage limits. The budget for the lease should not exceed \$500 per month, with a maximum initial deposit of \$3,000. You'll be looking for affordable monthly payments, a reasonable deposit, and a lease duration that suits your company's needs. Additionally, consider any extra costs such as maintenance, insurance, or excess mileage fees. The objective is to identify the best possible leasing option to present to your boss.

## Task Completion Criteria

When user acknowledges that they have to press the get quote button to get results.



# Task 3

## Request a Car Lease Quote

### Scenario 3

You are a car enthusiast interested in leasing a sporty Abarth for weekend drives. However, you have a limited budget since you recently covered your sister's wedding expenses and are recovering financially. After searching online, you find several leasing websites, but most only provide rough price estimates.

A friend suggests that Ling's Cars offers accurate quotes, so you decide to visit their website and request a personalized leasing quote for an Abarth 500 to help you make a decision.

### Task Completion Criteria

When the participant shares his understanding about the form submission step.

The screenshot shows a web browser displaying the Ling's Cars website. The page is titled 'REQUEST A QUOTE' and features a form for 'YOUR DETAILS'. The form includes fields for First name, Last name, Email, Your phone, and a checkbox for 'I would like to be called back...'. Below the form is a section for 'Comments' with a text area and two small icons. Further down, there is a dropdown menu for 'How did you hear about us?' with the option 'Please select...'. At the bottom of the form, there are two checkboxes: one for 'Keep me informed of the latest motor industry news, new vehicle launches, changes to legislation and special offers. See our privacy policy here.' and another for 'I agree to the terms and conditions \*'. A large black arrow points from the text 'about the form submission step.' in the task completion criteria to the 'Get a quote' button at the bottom right of the form. To the right of the form, there is a sidebar with contact information (phone number 0191 460 9444, email link) and details about the Abarth 500 lease offer, including monthly payments of £474.03 inc VAT, personal contract hire terms, and a note about excess mileage.

# Questionnaires

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## Pre-task Questionnaire

1. How are you feeling before starting the study?
2. What is your age?
3. Have you ever leased a car online before?
4. How often do you visit car leasing or dealership websites?
5. What is the main reason you visit car leasing websites?
6. Have you used Ling's cars website before?

## Post-task Questionnaire

1. How easy or difficult did you find this task to complete?
2. Did anything confuse you or cause you to hesitate?
3. Did you feel the website provided adequate feedback as you were completing the task ?

## Post-test Satisfaction Survey

1. How easy was it to find and lease a car on Lingscars website?
2. Did you encounter any difficulties during the process?
3. On a scale of 1-5, how visually appealing did you find the website?
4. Was the website's navigation clear and intuitive?
5. How satisfied are you with the amount of information provided about leasing options?
6. Did you feel confident about making a leasing decision based on the information available?
7. How likely are you to use this website again or recommend it to others?
8. What improvements would you suggest for a better experience?

**Why:** To gather baseline data, task-specific feedback, and overall user experience insights to assess and improve usability.



Participant ID: \_\_\_\_\_  
Site: \_\_\_\_\_  
Date: \_\_\_/\_\_\_/\_\_\_

### System Usability Scale

**Instructions:** For each of the following statements, mark one box that best describes your reactions to the website **today**.

	Strongly Disagree				Strongly Agree
1. I think that I would like to use this website frequently.	<input type="checkbox"/>				
2. I found this website unnecessarily complex.	<input type="checkbox"/>				
3. I thought this website was easy to use.	<input type="checkbox"/>				
4. I think that I would need assistance to be able to use this website.	<input type="checkbox"/>				
5. I found the various functions in this website were well integrated.	<input type="checkbox"/>				
6. I thought there was too much inconsistency in this website.	<input type="checkbox"/>				
7. I would imagine that most people would learn to use this website very quickly.	<input type="checkbox"/>				
8. I found this website very cumbersome/awkward to use.	<input type="checkbox"/>				
9. I felt very confident using this website.	<input type="checkbox"/>				
10. I needed to learn a lot of things before I could get going with this website.	<input type="checkbox"/>				

**Note:** This measure can be combined with additional follow-up questions that are project specific.

This questionnaire is based on the System Usability Scale (SUS), which was developed by John Brooke while working at Digital Equipment Corporation. © Digital Equipment Corporation, 1986.

# Post Test Questionnaire

The System Usability Scale (SUS) consists of 10 questions designed to assess the usability of a system, presented at the end of the test for this usability testing.

**Result:** Participants scores ranged between **85 - 95** which is considered adequate usability.



# Sessions Overview

Conducted remotely via Zoom from February 24 to February 28, 2025.

Each session lasted around 30 minutes.

Kate moderated the sessions, while Mehak and Shilpa observed, recording interactions, and task completion times, and any errors or hesitations.

Real-time observation via screen sharing

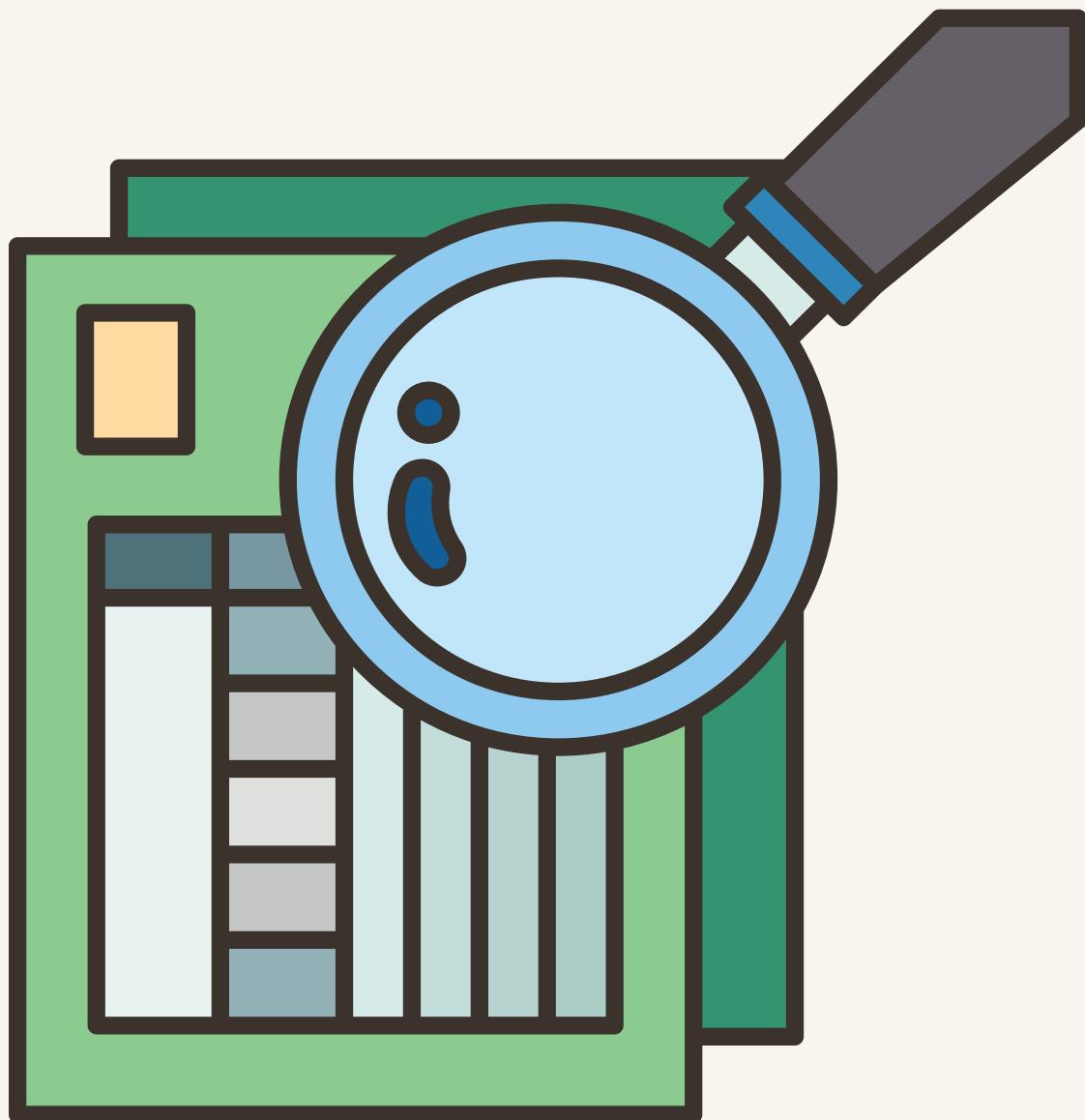


# Problems experienced by users

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**One minor issue:** While filling in data in the task 3, the participant had to re-input unsaved data.

# Findings Process



We used the **Think-Aloud Method** to evaluate user performance. Findings were derived from participants' responses to **pre-task questionnaire**, **post-task questionnaire**, **post-task satisfaction ratings**, and the **System Usability Scale (SUS) ratings**. Additionally, we **observed** user behaviors to identify patterns, pain points, and overall task efficiency.

# Research Question Insights

Research Question	Results
How easily are users able to navigate the website and complete given tasks?	<b>Mean task completion time:</b> 1 minute per task. <b>User experience:</b> No significant confusion or hesitation reported. <b>Feedback:</b> One participant mentioned a minor issue—having to re-enter unsaved data.
What usability issues do users encounter while performing the tasks?	<b>Usability:</b> No issues were reported. <b>Navigation:</b> Participants found it clear and intuitive.
What detours or inefficiencies emerge in the process of completing each task?	<b>Task Completion:</b> One participant skipped a step in Task 1 (selecting the personal option) but was still able to complete the task successfully.
How satisfied are users with the website's usability, speed, and functionality?	<b>Satisfaction Ratings:</b> Three participants rated 5 (very likely), while two rated 4 (likely). <b>Feedback:</b> Those who rated 4 mentioned they needed more time to fully explore the website.
What feedback do users provide on the design, layout, and overall user interface?	<b>Visual Appeal Ratings:</b> Three participants rated 3 (neutral), while two rated 4 (attractive). <b>Feedback:</b> One participant mentioned that the design was acceptable but not particularly striking.
How frequently do users make errors, and how do they attempt to recover?	<b>Accuracy:</b> No errors were made during task completion. <b>User Flow:</b> All participants followed the happy paths as intended.

# Recommendations

**Enhance Data Retention:** Save user input during form completion to prevent data loss.

**Refine UI Design:** Modernize the interface for better engagement and satisfaction.

**Optimize Navigation:** Reduce clutter for a streamlined user experience.

**Improve Feedback:** Strengthen error messages and system guidance.

**Expand Testing:** Include a more diverse user group to uncover further issues.



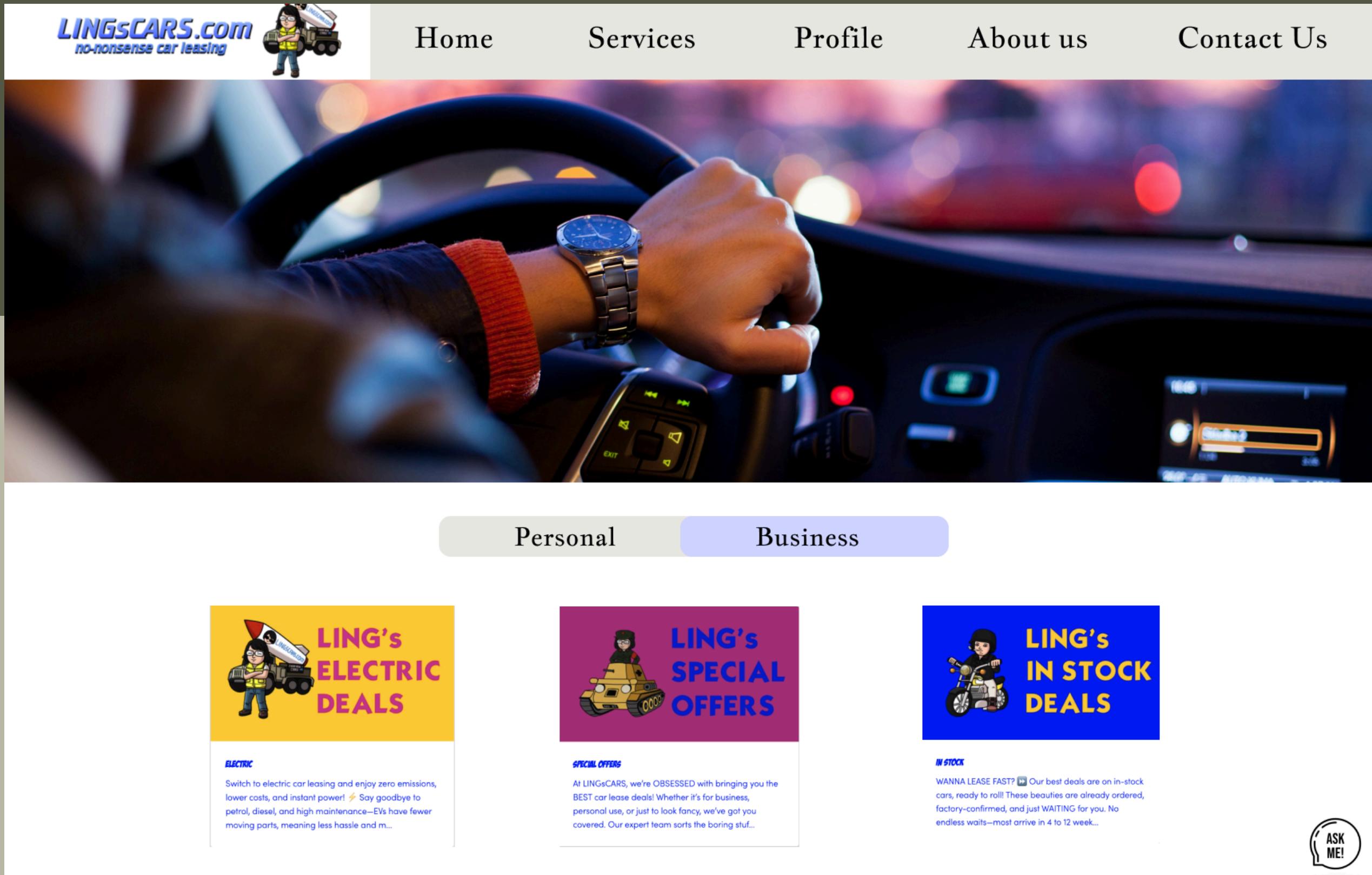
# Redesign

Before

The screenshot shows the homepage of LINGS CARS.com. At the top left is the logo 'LINGSCARS.com' with the tagline 'no-nonsense car leasing'. To its right is a cartoon character holding a sign that says 'LINGSCARS.COM'. The top navigation bar includes links for 'Car leasing', 'Van leasing', 'Manufacturers', 'About us', 'Museum', and 'Your Account'. On the far right, there's a phone number '0191 460 9444' with a 'Click to email me' link. A large central banner features an orange MG4 Hatchback against a vibrant paisley pattern. The banner text reads: 'MG4 HATCHBACK', '150KW TROPHY EV LONG RANGE', '64KWH 5DR AUTOMATIC', '£295 A MONTH INC VAT', '24 month contract', '6 months upfront', and '8000 miles a year'. Below the banner, it says 'BUSINESS PRICE £246 + VAT'. To the right of the banner is a search interface with dropdown menus for 'All makes', 'All models', 'All body styles', and 'Any budget', and a 'Get deals' button. The URL 'https://www.lingscars.com' is visible at the bottom left.

# Redesign

After



The image shows the LINGSCARS.com website redesign after. The header features the LINGSCARS logo with a cartoon character holding a car wheel, followed by navigation links: Home, Services, Profile, About us, and Contact Us. Below the header is a large, blurred background image of a person driving a car at night. The main content area includes tabs for Personal and Business, and three promotional boxes: LING's ELECTRIC DEALS (yellow background), LING's SPECIAL OFFERS (purple background), and LING's IN STOCK DEALS (blue background). Each box contains a cartoon character and a brief description. At the bottom right is a circular "ASK ME!" button.

**LINGSCARS.com**  
no-nonsense car leasing

Home Services Profile About us Contact Us

Personal Business

**LING's ELECTRIC DEALS**

**ELECTRIC**

Switch to electric car leasing and enjoy zero emissions, lower costs, and instant power! Say goodbye to petrol, diesel, and high maintenance—EVs have fewer moving parts, meaning less hassle and m...

**LING's SPECIAL OFFERS**

**SPECIAL OFFERS**

At LINGSCARS, we're OBSESSED with bringing you the BEST car lease deals! Whether it's for business, personal use, or just to look fancy, we've got you covered. Our expert team sorts the boring stu...

**LING's IN STOCK DEALS**

**IN STOCK**

WANNA LEASE FAST? Our best deals are on in-stock cars, ready to roll! These beauties are already ordered, factory-confirmed, and just WAITING for you. No endless waits—most arrive in 4 to 12 week...

ASK ME!

# Conclusion/ Next steps



After implementing our recommendations, the next steps for improving usability would be:

1. Conduct follow-up usability tests to evaluate the effectiveness of changes.
2. Monitor user behavior through analytics to track improvements in navigation and engagement.
3. Continue gathering user feedback through surveys and testing channels.
4. Iterate on design and functionality based on ongoing insights, ensuring continuous enhancement."

Thank You