AUTO–A PROTOTYPE: ENHANCING USER EXPERIENCE THROUGH FEEDBACK-BASED INTERFACE IMPROVEMENT

A Comparative Report Presented to

The Faculty of School of Technology and Computer Studies

Biliran Province State University

Naval, Biliran

In Partial Fulfillment of the

Requirements for the Subject of

Human and Computer Interaction

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2025

NATURE AND IMPORTANCE OF THE STUDY

This paper describes the iterative design and testing of AUTO–A, a high-fidelity prototype for a digital automotive platform. Designed in the Figma environment for a course on Human–Computer Interaction, this system supports the discovery of vehicles with key specifications, such as price, model, and production year. It also allows direct scheduling for test drives and consultations. This paper is important because it represents an applied piece of user-centered design. It shows a systematic methodology where iterative feedback was used to directly inform and improve usability.   As car buying shifts online, the quality of these digital platforms will be key to their success. This project shows how crucial user testing is. By watching real people use the platform, we can gather practical insights that help us make meaningful improvements, leading to a better, more satisfying experience for everyone.

METHODOLOGY

To track the prototype's progress, we used a simple two-phase approach: an initial test followed by a follow-up assessment after making improvements. In the first round, we had testers try out the early design to give us structured feedback on its layout, navigation, and overall functionality. This immediately revealed key issues, like admin tools that were hard to find and buttons that often didn't work. Using this feedback, our team then made targeted fixes—we moved and relabeled the admin access, repaired the broken buttons, and enhanced the visuals for better clarity. We then tested the refined prototype to confirm that these changes effectively solved the initial problems. This cyclical "test-and-refine" process is a core HCI principle, treating design as a living process that is continually improved through real user input.

DATA GATHERING

Data were collected via a peer-based usability evaluation. Participants, who were classmates, engaged with the AUTO–A prototype and subsequently completed a detailed feedback form. This instrument was designed to measure critical usability dimensions, including navigational intuitiveness, accessibility, informational clarity, and visual design. The form captured both quantitative ratings and qualitative, open-ended commentary, providing a holistic view of the user experience. The evaluation was conducted in a controlled, in-person setting, allowing observers to note interaction patterns in real-time. A cohort of ten respondents participated in this evaluation, providing a substantive dataset for analysis.

DATA CLEANING

Given the qualitative nature of the primary data, the cleaning and synthesis process involved a thematic analysis of the written feedback. Comments were systematically grouped into emergent categories based on shared concerns and observations. Each feedback entry was reviewed for relevance and clarity, with redundant remarks consolidated to create a focused dataset. This structured categorization allowed the team to distill a wide range of comments into actionable insights. For instance:

- The remark, "Admin button not visible," was classified under Navigational Deficiencies.
- The observation, "Some buttons do not work," was grouped under Functional Integrity.
- Positive feedback, such as "Color and layout are good," was cataloged under Design Affordances.

This method of synthesis enabled a prioritized and organized approach to the prototype's revision.

RESULTS AND DISCUSSION

The comparative analysis revealed marked improvements in the prototype's overall usability following the revisions. The enhanced version demonstrated a more coherent navigational flow, full functional interactivity, and a polished visual presentation.

Specific outcomes of the redesign include:
- Streamlined Navigation: Achieved through the strategic relocation and clearer labeling of the admin button, eliminating a primary point of user confusion.
- Robust Interactivity: All interface components responded as expected, creating a seamless and trustworthy user interaction.
- Refined Visual Communication: Improved typographic contrast, spacing, and alignment elevated readability and the overall aesthetic quality.
- Enhanced Content Clarity: A reorganized layout more effectively communicated the system's purpose and capabilities to the user.

Collectively, these enhancements resulted in a more efficient and engaging user experience. While the prototype may not be exhaustive, the study successfully demonstrates that a disciplined,

iterative cycle of testing and refinement can profoundly improve a digital product's quality. The evolution of the interface, as shown below, provides visual testimony to the impact of this user-driven process.

APPENDIX A: USABILITY FEEDBACK FORM

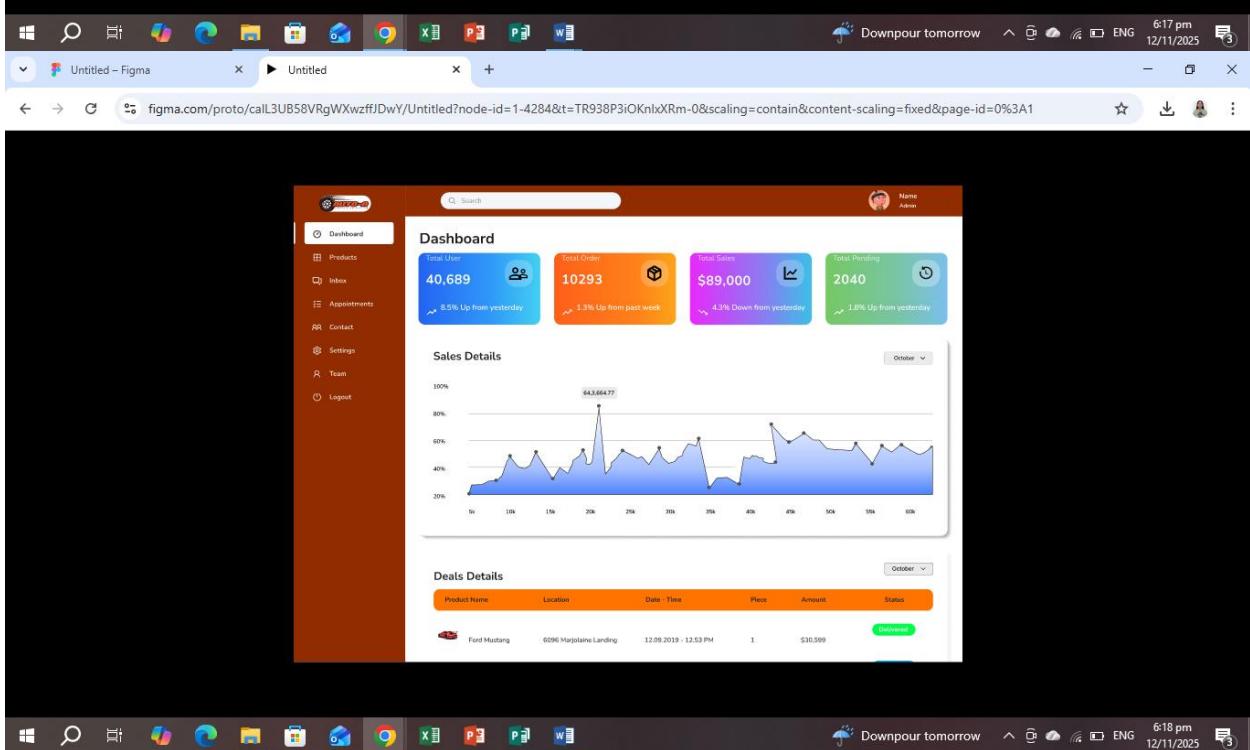*Figure 1*: Sample peer evaluation form used during the initial usability assessment

Figure 1.1: Sample peer evaluation form used during the initial usability assessment
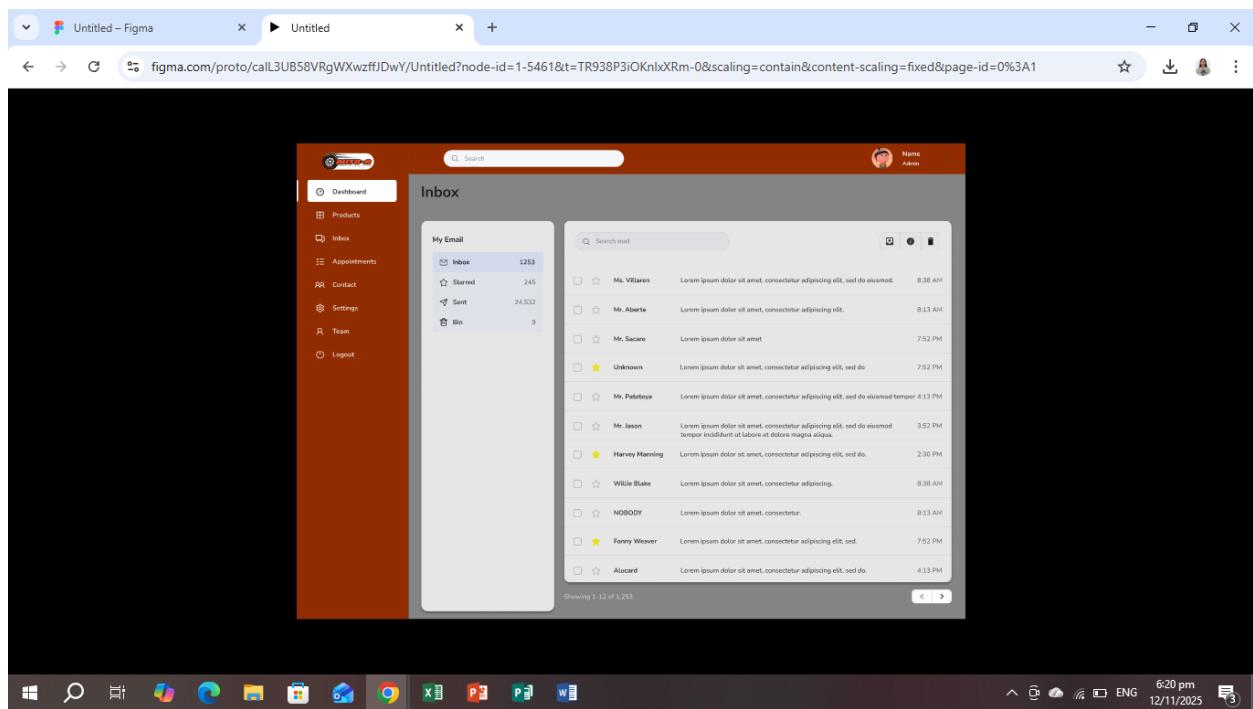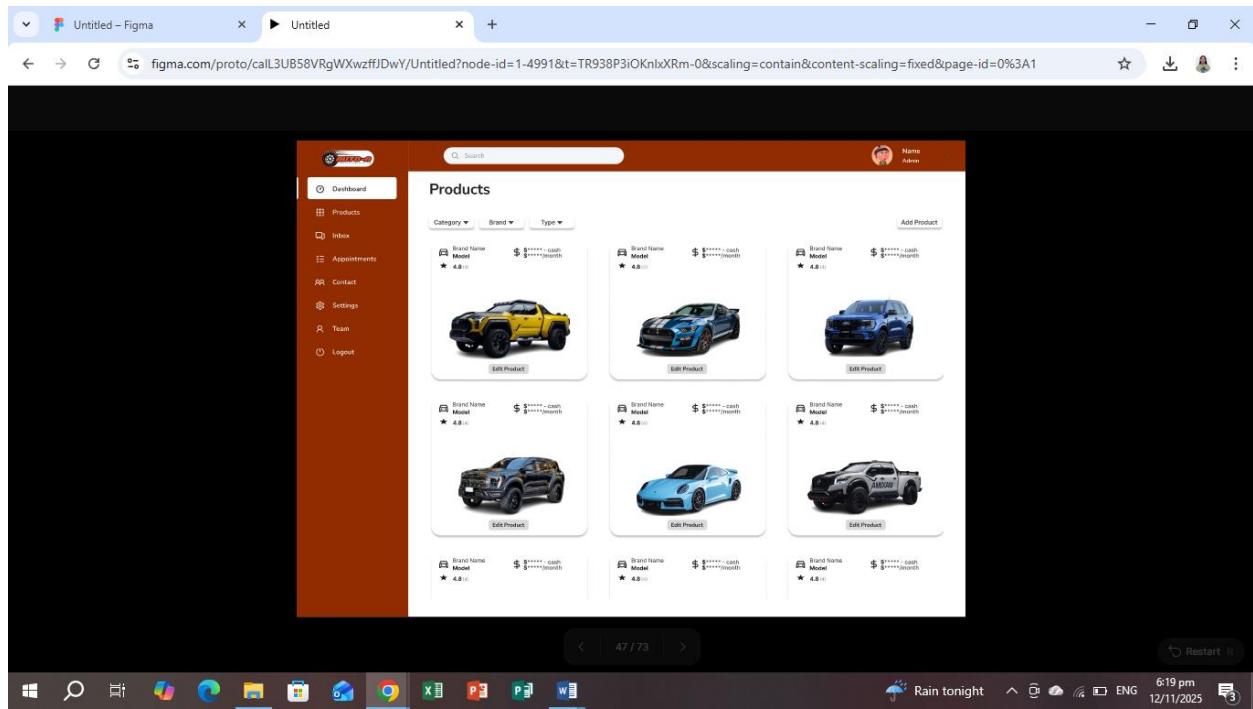
APPENDIX B: PROTOTYPE SCREENSHOTS

ADMIN SIDE

USER SIDE

Home   About Us   Contact Us   FAQ   Log In   Sign Up

Sign in | Log In

Find Your Car

FirstName   LastName

Email

Password

Confirm Password

☑ Agree to the Terms of Use

Submit

Already have an account? Log in

Explore Cars

Rainy days ahead   ENG   6:33 pm   12/11/2025

Search   Home   About Us   Contact Us   FAQ   ♡   👤

Find Your Car

Explore Cars

2 cm of rain Fri   ENG   6:34 pm   12/11/2025

About Us

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At our shop, AUTO-A, we're passionate about helping you find the perfect vehicle that fits your lifestyle and budget. Whether you're looking to purchase a brand-new car or explore the benefits of a used vehicle, we've got you covered.

Our user-friendly platform connects buyers and sellers seamlessly, making it easy to browse a wide range of vehicles from top brands. From sleek sedans to spacious SUVs and powerful trucks, we offer a diverse selection to suit every preference.

Why Choose Car Buy or Sell?

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- **Trusted Sellers:** We verify sellers to ensure you have a safe and reliable buying experience.

- **Easy Search:** Our intuitive search filters help you find your dream vehicle quickly.

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Chat Support

Need a quick answer or have a question that needs immediate attention? Our live chat support is here to help! Connect with a friendly Auto-A representative directly from our website for instant responses and personalized support, available [business hours]. Start chatting now and experience the ease of Auto-A's live support!

Email Support

Need assistance with your Auto-A account, product information, or have a question? Our dedicated email support team is here to help! Reach out to us at support@auto-a.com and we'll respond to your inquiry within [response time frame].