

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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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

Evaluation Summary Sheet

Subject: Human-Computer Interaction
 Project Title: AUTO - A
 Group: 1
 Date of Usability Test: 10-21-25
 Evaluator(s): PEHL in Galloway

1. Rating

Category	Excellent (5)	Good (4)	Fair (3)	Poor (2)	Very Poor (1)	Remarks
Interface Design	/					
Navigation	/					
Functionality	/					
Responsiveness	/					
Content Clarity	/					
Aesthetic Appeal	/					
Overall Satisfaction	/					

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2. Feedback Summary

Category	Positive Feedback	Issues/Problems Identified	Suggested Improvements
Interface Design			
Navigation		hard to find the return button.	
Functionality		not all buttons are clickable.	
Content	(content is clear) ya		
Overall User Experience			

Design is applicable

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

3. Key Insights

- What were the main strengths of the system?
 The design, visual controls and choice of colors for the specific products are complimenting.
- What were the main usability issues?
 Yes, it's the easier meant for different kinds of cars and it is also very user friendly.
- What are your top 3 recommendations for improvement?
 1. Make the return button easier to find.
 2. Some buttons are not clickable.
 3. _____

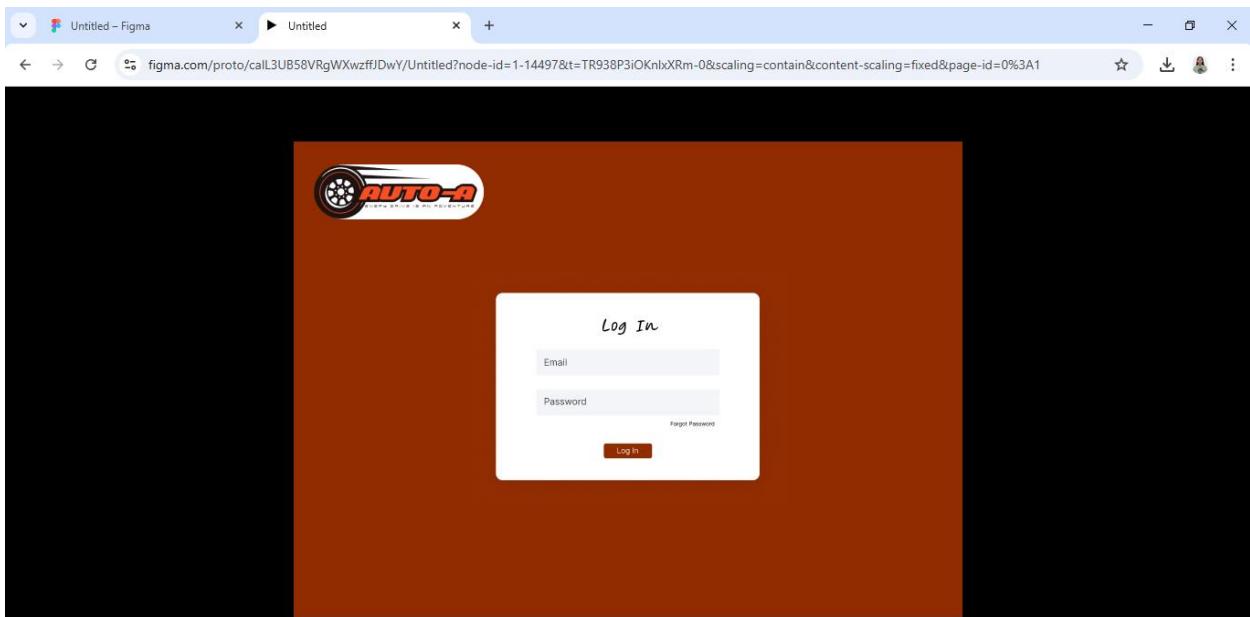
4. Reflection

- What did your team learn from the usability test?
 The importance of visual controls most importantly. When the colors are complimenting the product, it makes the experience more appealing with the sense of radiance. The quality is high tier and most all the features and information needed ~~like buttons are present~~ are present. Overall, I would highly recommend this to a car selling company.

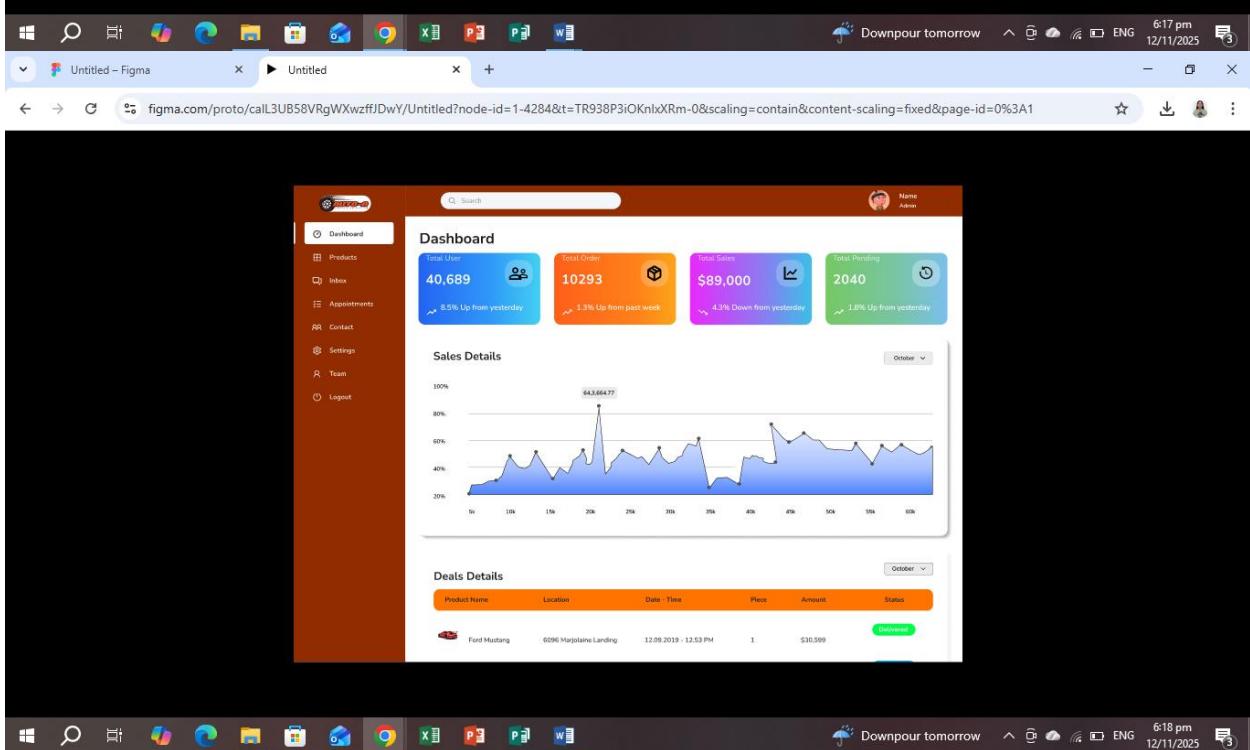
Figure 1.1: Sample peer evaluation form used during the initial usability assessment

APPENDIX B: PROTOTYPE SCREENSHOTS

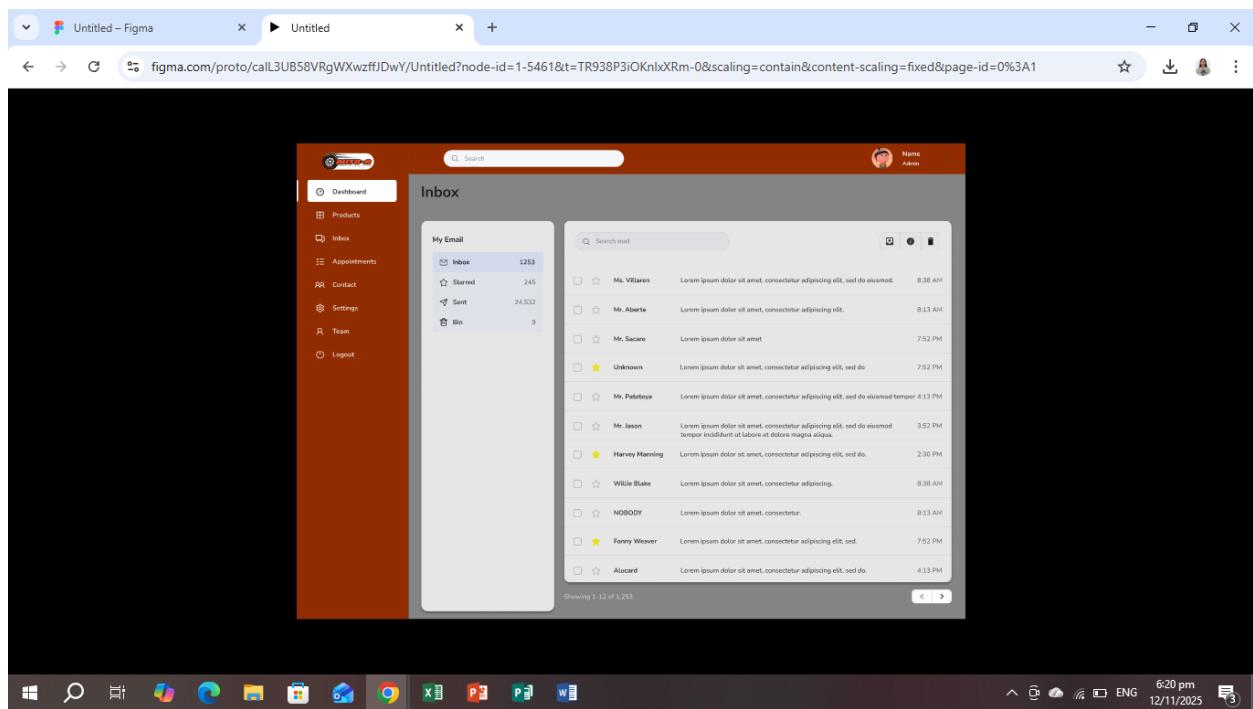
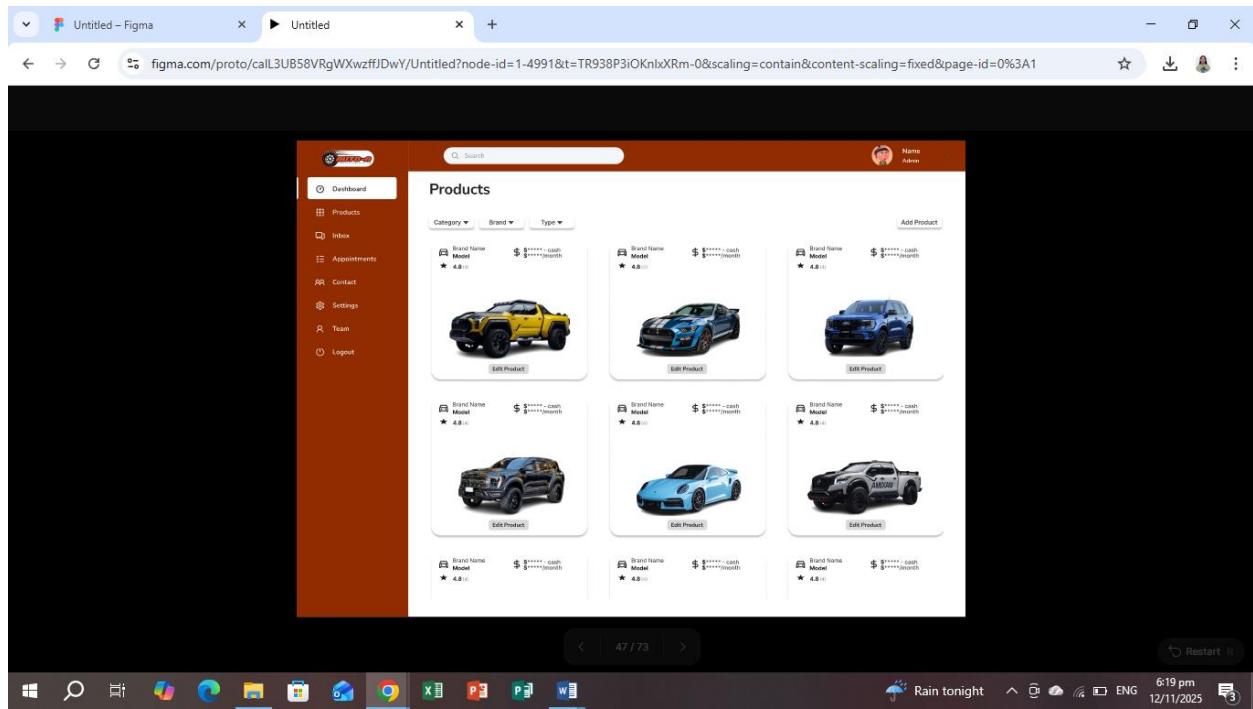
ADMIN SIDE



The screenshot shows a Figma prototype of an admin login interface. The background is a solid orange color. At the top center is a logo for "AUTO-A" with a stylized tire tread graphic. Below the logo is a white rectangular login form with rounded corners. The form contains the text "Log In" at the top, followed by two input fields: "Email" and "Password". Underneath the password field is a "Forgot Password?" link. At the bottom of the form is a dark red "Log In" button.



The screenshot shows a Figma prototype of an admin dashboard. The left side features a vertical navigation menu with icons and labels for Dashboard, Products, Appointments, Contact, Settings, Team, and Logout. The main content area has a light gray header bar with a search icon and a user profile placeholder. Below the header is a "Dashboard" section with four cards: "Total User" (40,689), "Total Order" (10293), "Total Sales" (\$89,000), and "Total Pending" (2040). Each card includes a small icon and a percentage change indicator. Below the dashboard is a "Sales Details" section containing a line chart showing sales over time. The chart has a blue area fill and black line markers. The x-axis represents time in months from 6M to 6M, and the y-axis represents sales percentage from 20% to 100%. A specific data point is highlighted with a callout showing "\$43,664.77". At the bottom is a "Deals Details" section with a table showing a single deal for a "Ford Mustang" located at "6096 Marjolaine Landing" on "12.09.2019 - 12.53 PM" for "1" unit at "\$10,399" with a status of "Pending".



Untitled – Figma

figma.com/proto/call3UB58VRgWXwzffJDwY/Untitled?node-id=1-5661&t=TR938P3iOKnlxXrm-0&scaling=contain&content-scaling=fixed&page-id=0%3A1

Dashboard

Products

Inbox

Appointments

Contact

Settings

Team

Logout

Appointments

ID	Name	Address	Date	Product	Status
00001	Christine Brooks	089 Kutch Green Apt. 448	04 Sep 2019	Ford Mustang	Delivered
00002	Rosie Pearson	979 Immanuel Ferry Suite 526	28 May 2019	Nissan GTR	Pending
00003	Derrick Caldwell	8587 Frida Ports	23 Nov 2019	Honda Civic	Canceled
00004	Gilbert Johnston	768 Distillery Lake Suite 600	05 Feb 2019	Toyota Vios	Delivered
00005	Alan Cain	042 Mylene Throughway	29 Jul 2019	Toyota Hilux	Pending
00006	Athred Murray	543 Vilmaire Mountain	15 Aug 2019	Honda Civic Type R	Delivered
00007	Maggie Sullivan	New Scottieberg	21 Dec 2019	Hyundai	Pending
00008	Rosie Todd	New Jon	30 Apr 2019	Honda City	Canceled

Rain tonight 6:21 pm 12/11/2025

Untitled – Figma

figma.com/proto/call3UB58VRgWXwzffJDwY/Untitled?node-id=1-7167&t=TR938P3iOKnlxXrm-0&scaling=contain&content-scaling=fixed&page-id=0%3A1

Dashboard

Products

Inbox

Appointments

Contact

Settings

Team

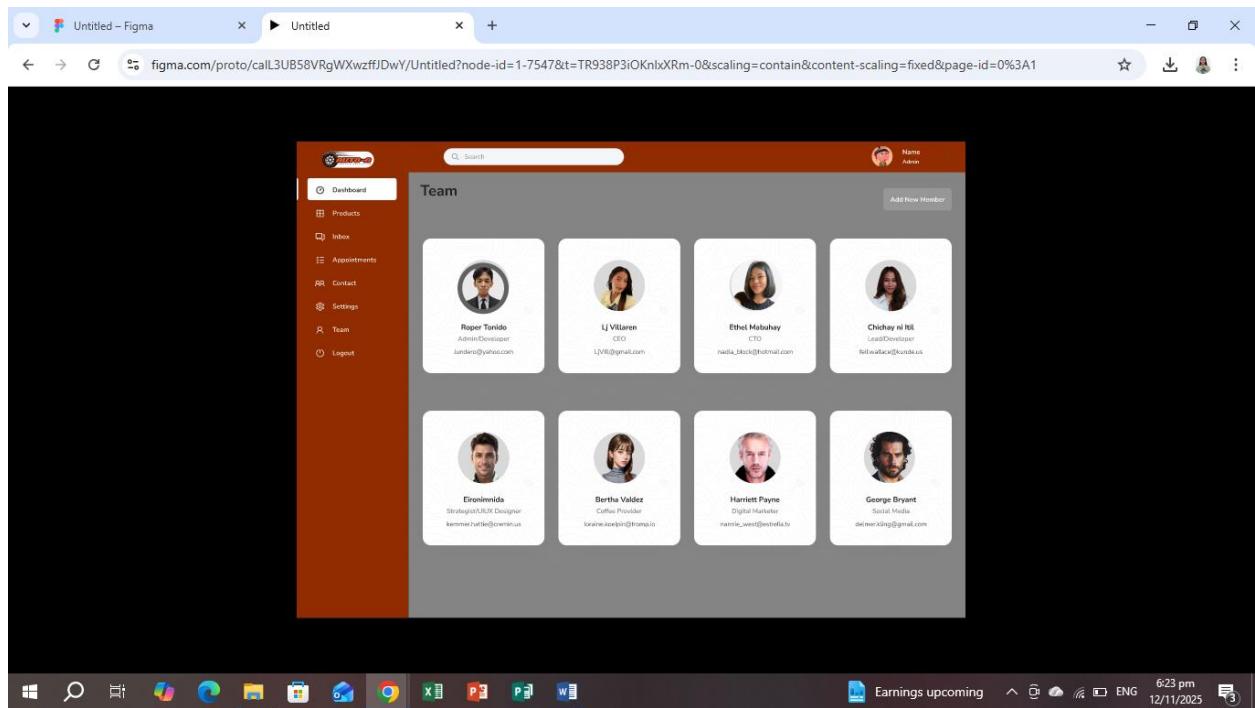
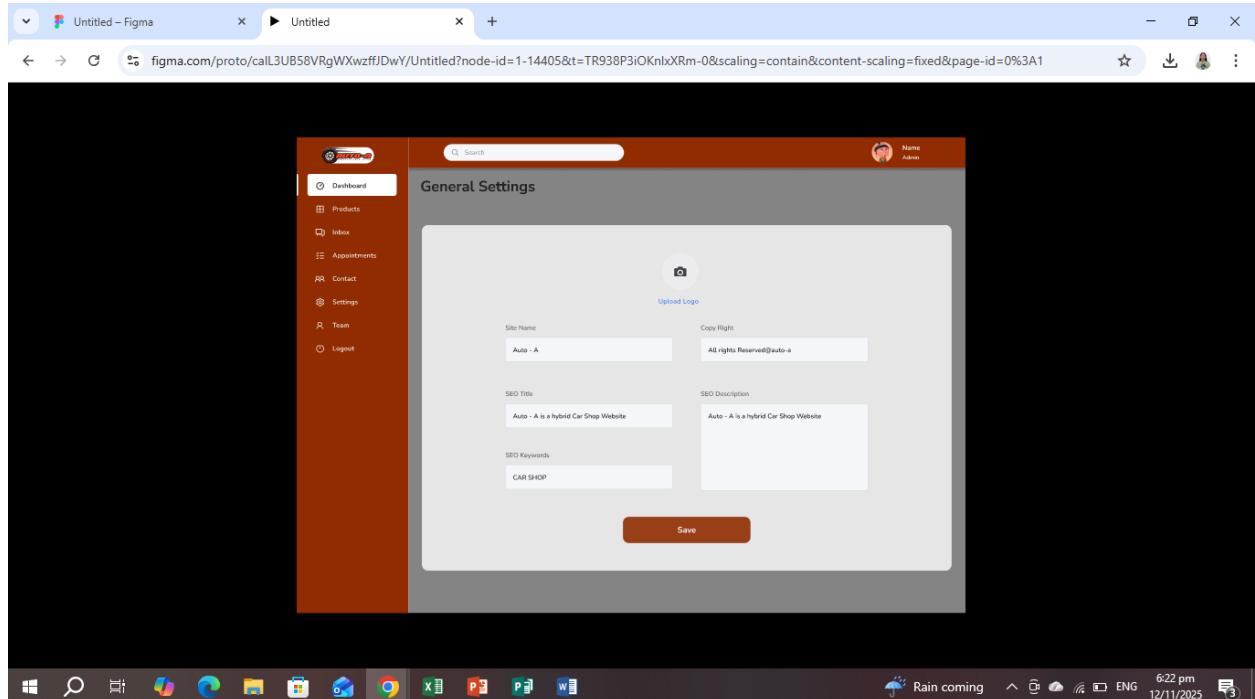
Logout

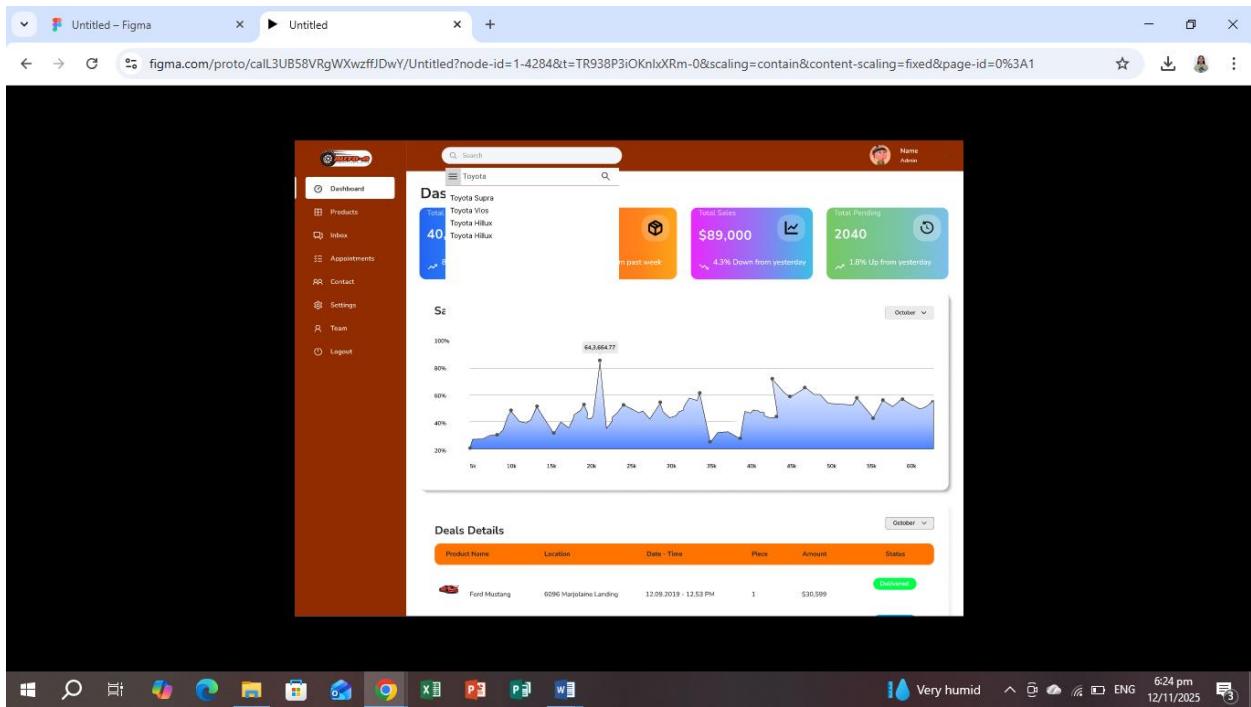
Contact

Add New Contact

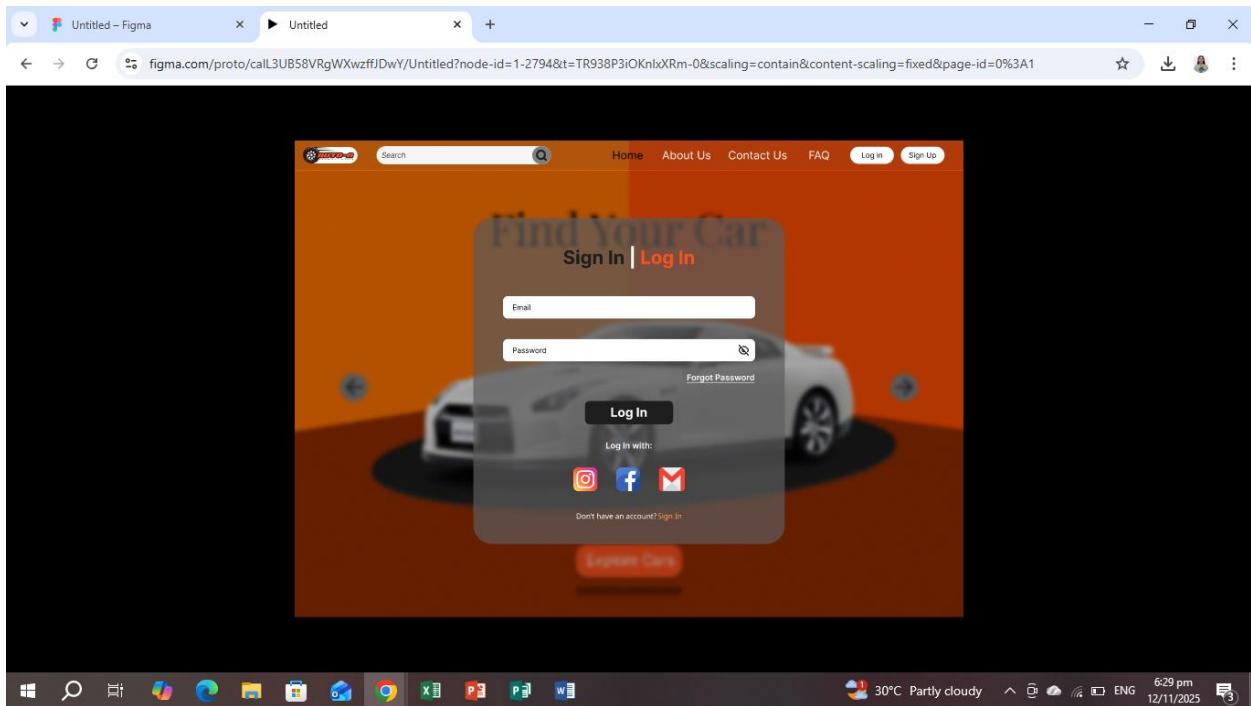
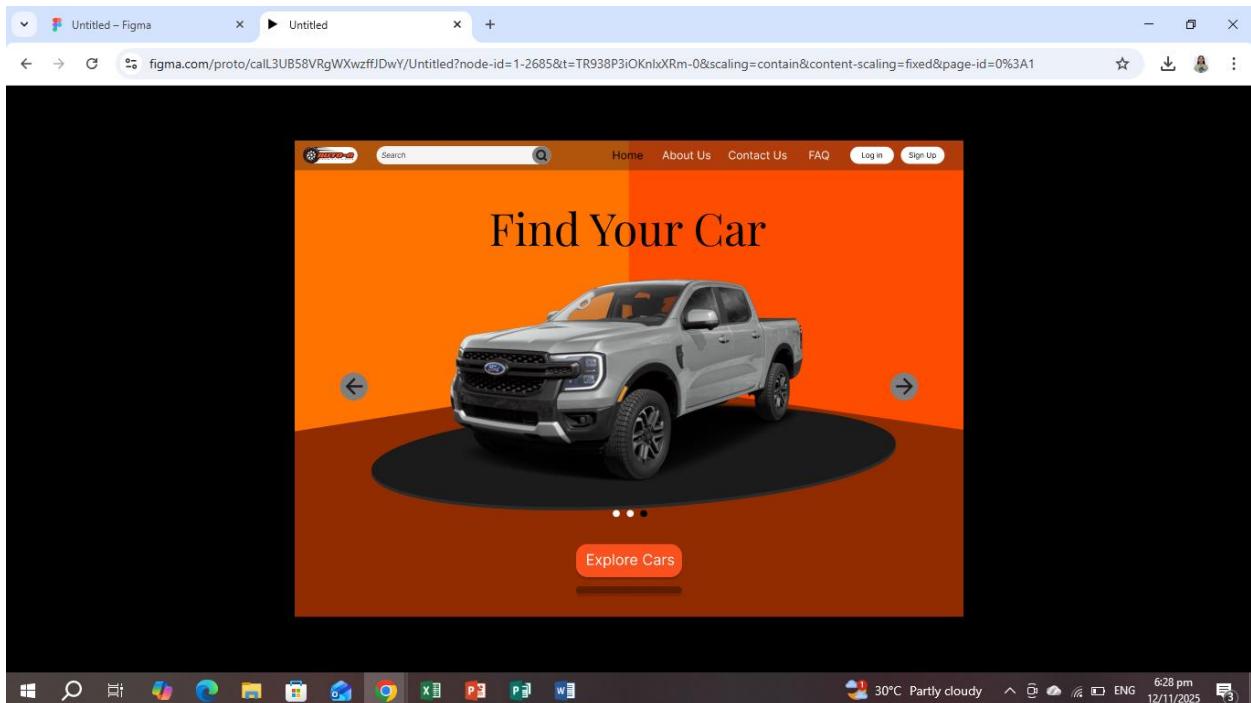
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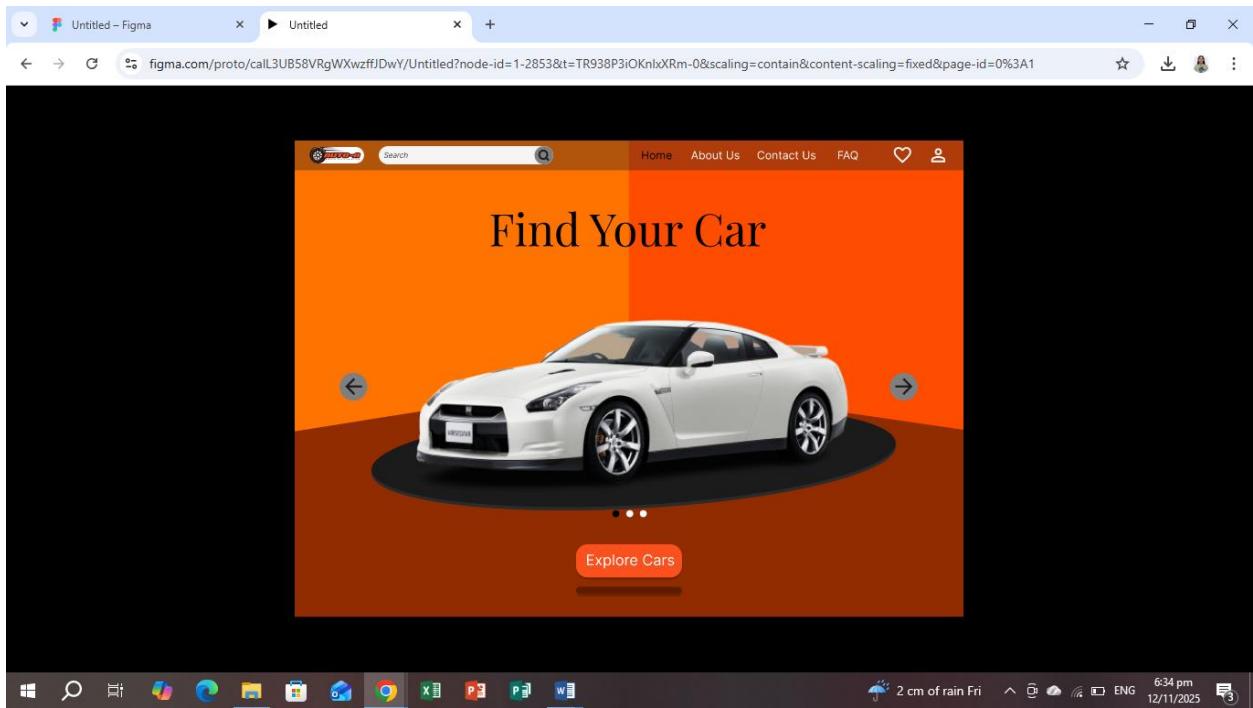
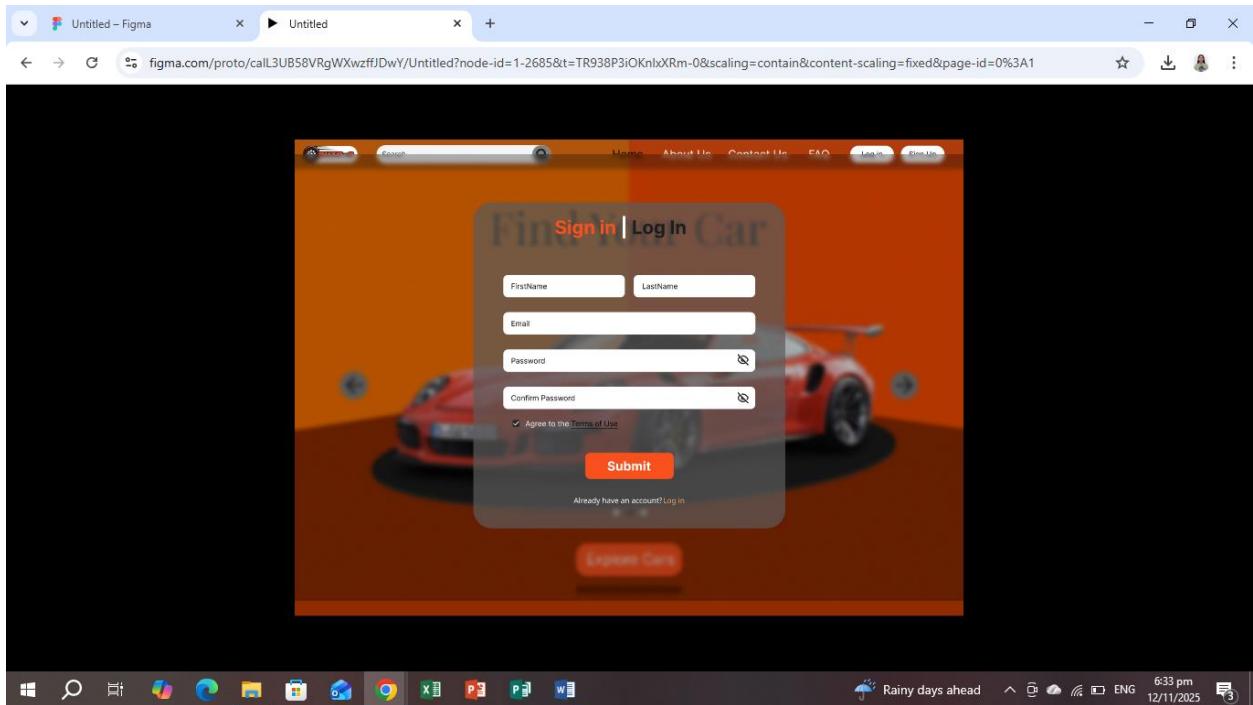
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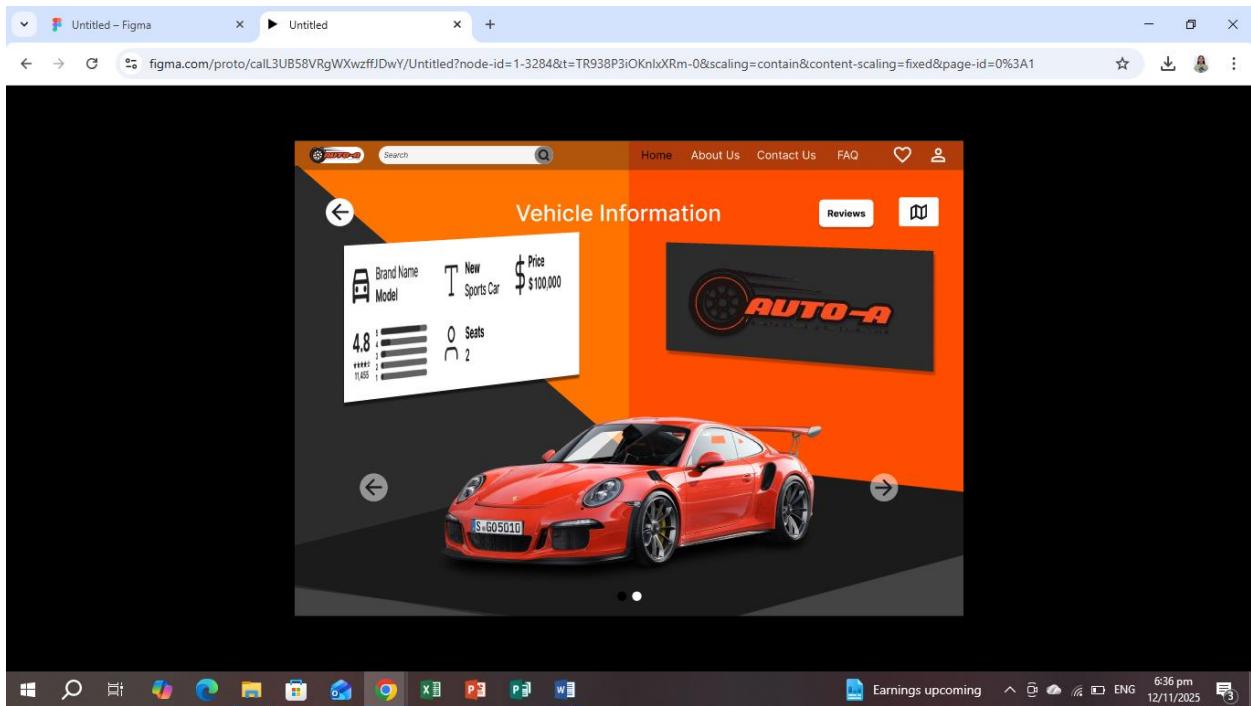
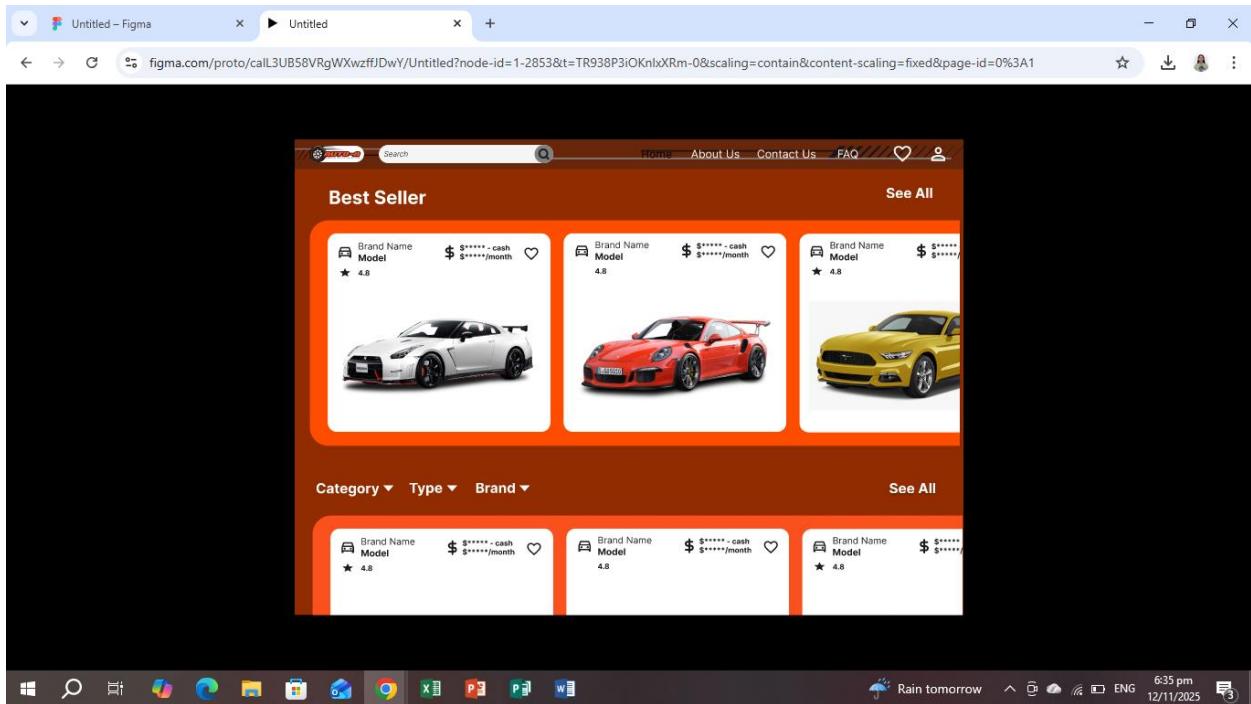


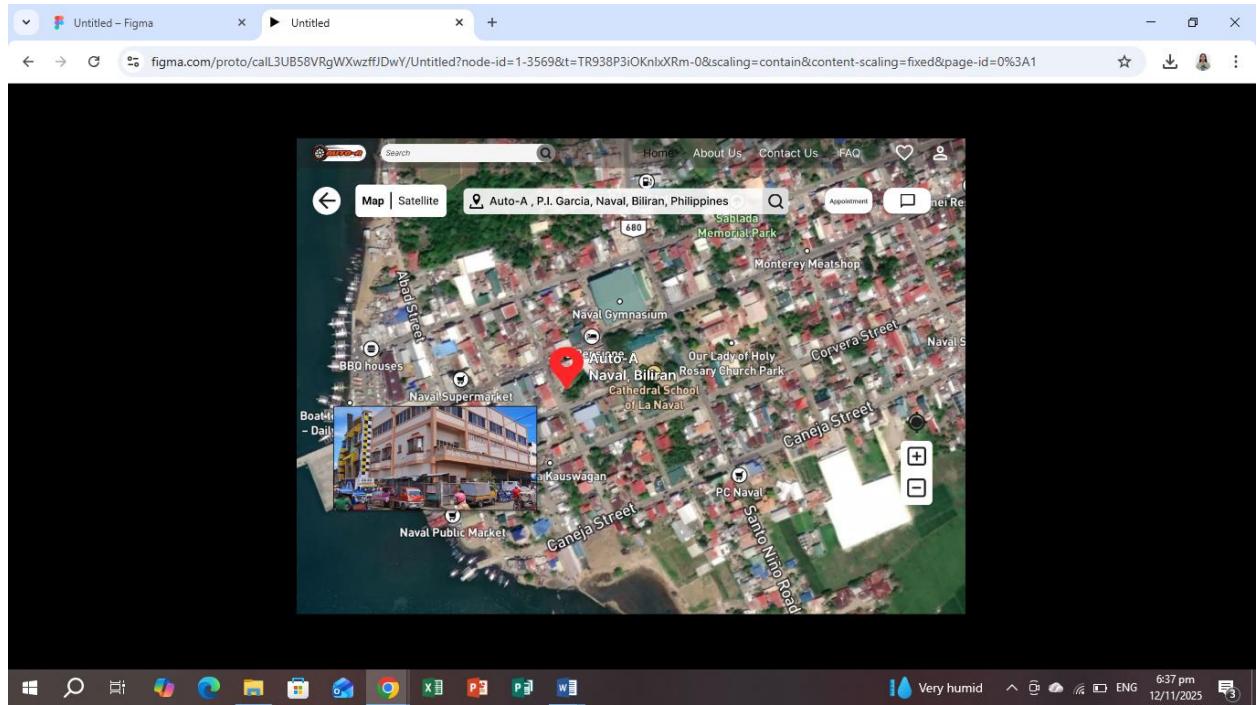
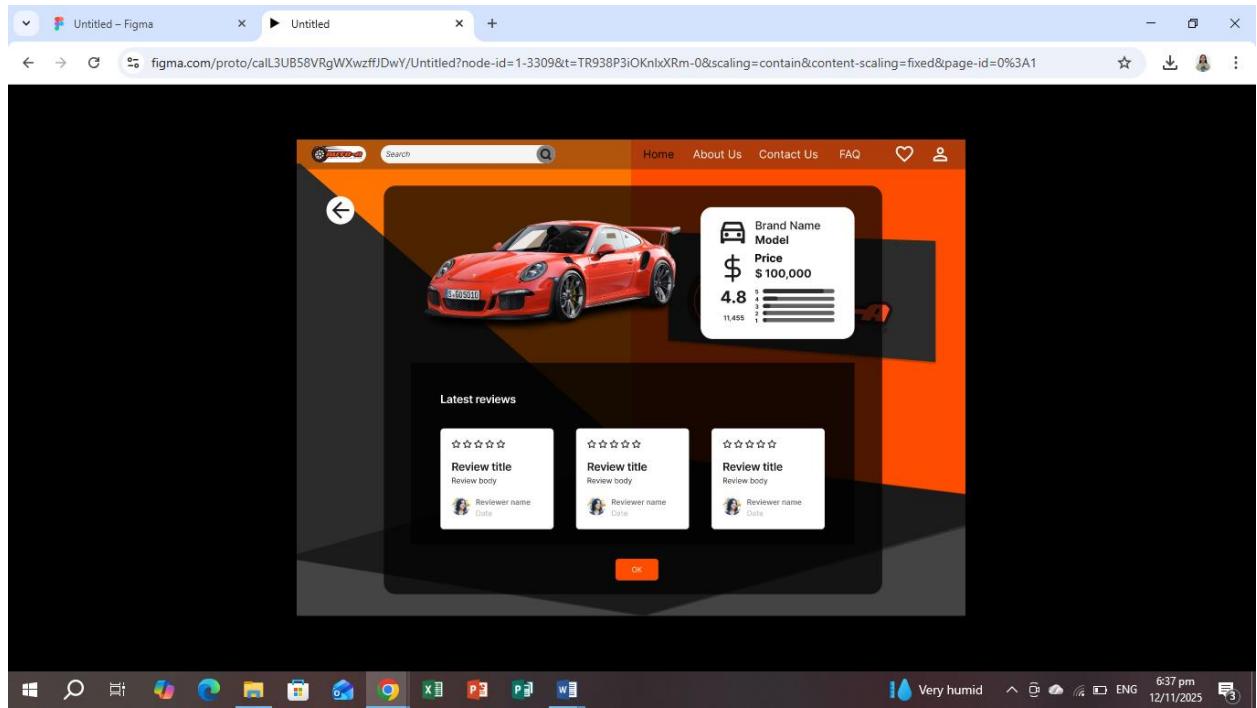


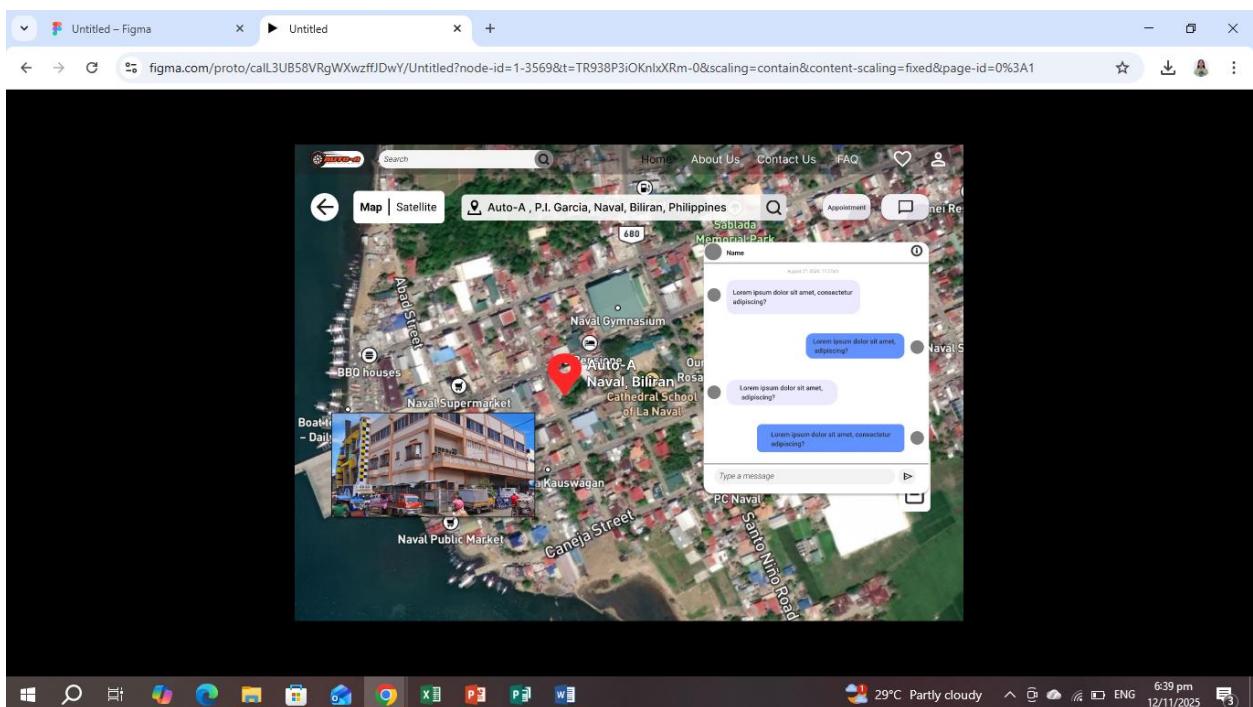
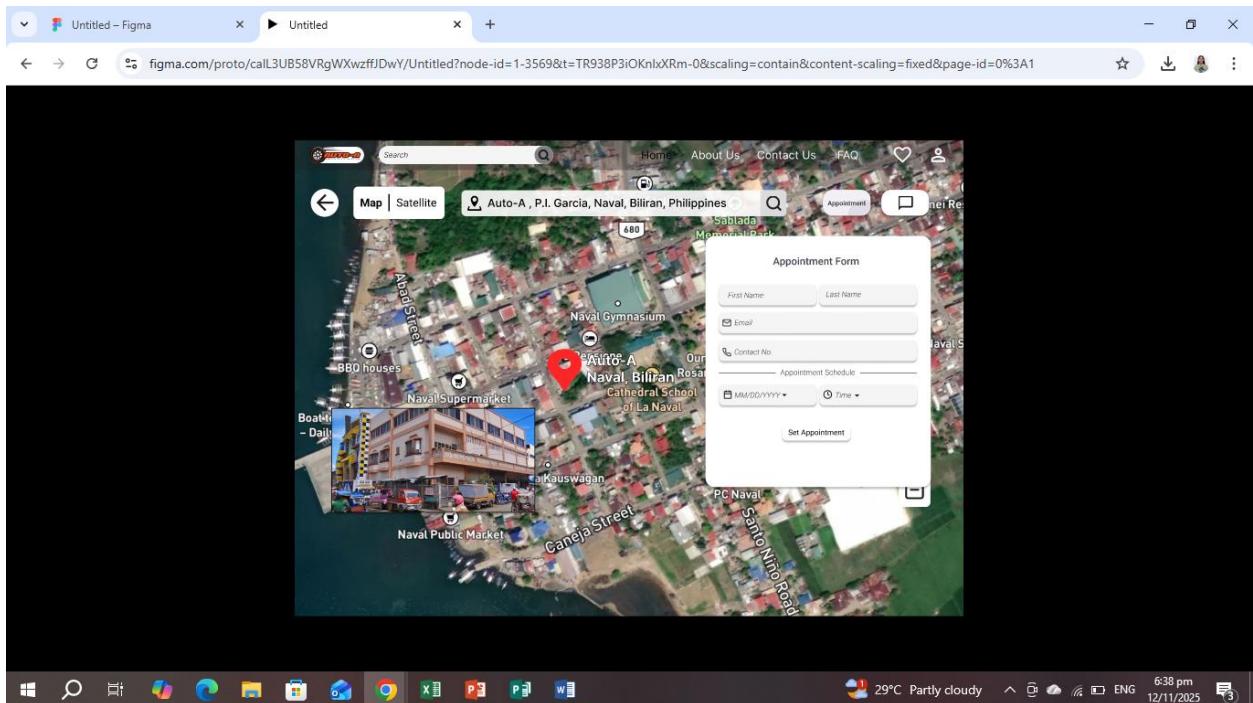
USER SIDE











The screenshot shows the 'About Us' section of a car dealership website. At the top, there's a banner featuring several cars. Below it, two main sections are displayed on orange-colored panels:

- Your car search ends here.**

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 efficiently, 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?**
 - Extensive Inventory:** Discover a vast collection of new and used cars, trucks, and SUVs.
 - 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.

The page includes a standard header with a search bar and navigation links (Home, About Us, Contact Us, FAQ) and a footer with social media icons and a copyright notice.

The screenshot shows the 'Contact Us' section of the website. It features a banner with multiple cars at the top. Below, two support options are presented on orange panels:

- Get in touch with our creator-friendly support team**
 - 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].

The page includes a standard header with a search bar and navigation links (Home, About Us, Contact Us, FAQ) and a footer with social media icons and a copyright notice.

