**MOUNTAINS OF THE MOON UNIVERSITY**

**FACULTY OF SCINCE, TECHNOLOGY AND INNOVATION**

**DEPARTMENT OF COMPUTER SCIENCE**

**FUNDAMENTALS OF WEBSITE DEVELOPMENT**

**COURSE CODE: BIT 1204**

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**NIC LUXURY MOTORS**

**REPORT**

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**1. Introduction**

Nic Luxury Motors is a premier automotive dealership that offers an elite collection of luxury vehicles to clientele both locally and globally. Recognizing the growing importance of digital presence in today's market, the organization developed an online platform to showcase its offerings and streamline client interactions. This report outlines the development process, key features, and strategic goals behind the creation of the Nic Luxury Motors website, accessible at [https://nicluxurymotor.netlify.app](https://nicluxurymotor.netlify.app/).

The rise of internet connectivity across Africa has transformed how businesses engage with clients. For a luxury car dealership, this transformation includes extending the showroom to the digital space. The website is intended to reflect the elegance, professionalism, and quality service associated with the Nic Luxury Motors brand.

**2. Background**

Nic Luxury Motors was established with the vision of bringing globally recognized luxury car brands closer to Ugandan and East African customers. Previously relying solely on physical interactions, the company identified a need to expand its reach through digital means. The move to an online presence was influenced by several factors, including customer convenience, market expansion, and the changing nature of buyer behaviour.

In the pre-digital era, customers relied on visiting physical showrooms to get information, see available cars, and make purchases. With the digital shift, there's a growing expectation for businesses to offer product catalogues, contact forms, and company details online. By creating a digital platform, Nic Luxury Motors can respond quickly to inquiries, offer updates on new arrivals, and present a seamless customer experience.

**3. Objectives**

The following objectives guided the development of the Nic Luxury Motors website:

* To create a modern and responsive website that aligns with the luxury branding of the company.
* To provide a virtual catalog of the latest car models in stock.
* To serve as a communication channel between the dealership and potential customers.
* To integrate social media and contact features for improved engagement.
* To enhance the company's visibility and accessibility beyond Kampala.

Secondary objectives include optimizing the site for search engines, enabling future scalability with dynamic features, and preparing the business for e-commerce capabilities.

**4. Target Audience**

The website targets a refined audience segment including:

* High-net-worth individuals (HNIs) in Uganda and East Africa.
* Business executives and organizations seeking to invest in executive fleets.
* International car buyers interested in reliable shipping solutions to Africa.
* Car enthusiasts looking to explore luxury brands like Mercedes-Benz, Rolls-Royce, and BMW.

| **Demographic** | **Characteristics** |
| --- | --- |
| **Age Range** | 35-65 years |
| **Income Level** | High-net-worth individuals |
| **Interests** | Luxury vehicles, automotive technology, premium lifestyle |
| **Digital Behaviour** | Comfortable with online research before major purchases |

Understanding the audience informed content design, navigation flow, and branding tone. For example, a clean layout with luxurious imagery resonates more with this audience than complex animations or cluttered interfaces.

**5. Tools and Technologies Used**

To ensure efficiency, scalability, and modern design, the following tools were employed:

**Development Tools**

* **HTML5** and **CSS3** for structured, styled content.
* **JavaScript** for interactivity and user interface enhancements.
* **Netlify** for deployment, providing free, secure, and fast static site hosting.

**Additional Resources**

* **Font Awesome** and **Google Fonts** for typography and icons.
* **GitHub** for version control and team collaboration.
* **Responsive frameworks** (media queries and grid systems) to enhance compatibility across devices.

**6. Design and Development Methodology**

A user-centered design approach was adopted, which began with research and user analysis. This was followed by:

1. **Requirement Analysis**: Stakeholder interviews, market research, and competitor site reviews informed functional requirements.
2. **Wireframing**: Low-fidelity sketches and digital mockups were created in Figma.
3. **Prototyping**: High-fidelity prototypes allowed early user testing and feedback incorporation.
4. **Coding**: HTML, CSS, and JavaScript were used for actual site development. Emphasis was placed on semantic markup, accessibility, and responsiveness.
5. **Testing and Deployment**: Each feature was tested before the final deployment on Netlify.

The methodology ensured each aspect of the site aligned with business goals and user needs.

**7. Features and Functional Overview**

**Homepage**

* Slider back ground on the home / welcoming page with animated social media icons
* Welcome text outlining the dealership’s mission.
* Quick access links to major site sections.

**About Us**

* Company history, mission, vision, and team introduction.
* Information about major stake holders of the web
* Embedded Google Maps location.

**Models**

* Image-rich section displaying various vehicle brands and models.
* Details on car specifications, features, and availability.

**Shipping Solutions**

* Step-by-step overview of logistics from order to delivery.
* Information about insurance, payment, and delivery timelines.

**Log in Page**

* Log in form with validation features that enable the client to converse with the stakeholders.
* Social media icons with links.

**Footer**

* Links to privacy policy, FAQs, and terms of service.

**8. Testing and Quality Assurance**

Robust testing procedures were followed:

* **Functional Testing**: Ensured all buttons, links, and forms worked as intended.
* **Responsive Testing**: Site was tested across devices like iPhones, Android phones, tablets, and desktops.
* **Cross-Browser Testing**: Verified compatibility with Chrome, Firefox, Safari, and Microsoft Edge.
* **Accessibility Testing**: Confirmed the site could be navigated using screen readers and keyboard shortcuts.
* **Performance Testing**: Analysed loading speeds using Metrix and Google Lighthouse.

Bug fixes and optimizations were made based on test outcomes to ensure a polished user experience.

**9. Challenges Encountered and Resolutions**

* **Inconsistent Styling Across Browsers**: Initial CSS appeared differently on Safari and Firefox.
  + *Solution*: Used browser reset stylesheets and tested with standard CSS properties.
* **Slow Image Loading**: High-resolution images led to poor load times.
  + *Solution*: Image compression and lazy loading implementation improved performance.
* **Navigation Issues on Mobile**: Users had difficulty accessing the full menu.
  + *Solution*: Integrated a hamburger menu using JavaScript for mobile navigation.

**10. Project Evaluation**

The project achieved its core objectives and exceeded expectations in branding consistency and site usability. It provided a professional digital presence that aligns with the luxurious image of Nic Luxury Motors. Additionally, the mobile-first design ensures broader reach across all user types.

Site analytics (once implemented) will help evaluate:

* Bounce rate and average session duration.
* Conversion rate via the contact form.
* User demographics and interests.

Early feedback from users was overwhelmingly positive, highlighting the clean layout, ease of use, and appealing visuals.

**11. Future Recommendations**

* **Content Management System (CMS)**: Implement a CMS like WordPress or Strapi for easier content updates.
* **Search Functionality**: Add search and filter options for better inventory navigation.
* **User Login Area**: Allow returning customers to create accounts and view previous inquiries.
* **Live Chat Integration**: Use tools like Tawk.to for real-time customer support.
* **SEO Optimization**: Focus on keywords, meta tags, and schema markup for better visibility.
* **Blog Section**: Share company news, reviews, and automotive industry insights.

**12. References**

* Nic Luxury Motors Website: <https://nicluxurymotor.netlify.app/>
* Netlify Hosting: <https://www.netlify.com/>
* W3Schools HTML/CSS/JS: <https://www.w3schools.com/>

**13. Appendices**

**Appendix A**: Homepage and Product Page Screenshots  
**Appendix B**: Full Car List Featured in the Website  
**Appendix C**: Design Mockups from Figma  
**Appendix D**: Testing Logs and Browser Compatibility Table  
**Appendix E**: Social Media Accounts Used and Engagement Strategy

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