

## Group 20: Team BASOMA



### Project and Product Document: BASOMA AUTOWORKS

<b>Vision</b>	To revolutionize Nigeria's spare parts industry, empowering enthusiasts, mechanics, and car owners with seamless access to genuine products.
<b>Mission</b>	To provide a convenient, reliable, and trusted marketplace for automobile enthusiasts, mechanics, and car owners to find and purchase genuine spare parts for their vehicles.
<b>Background</b>	<p>The Nigerian automotive parts market is the second largest market in Africa in terms of imports.</p> <p>According to the Nigeria Customs, 849,756 vehicles were imported in 2021. This has increased the number of vehicles in Nigeria to over 11.8 million vehicles with only 15% of them are estimated to be brand new according to</p> <p>According to Autoparts Africa, Nigerian drivers' average spending on automotive parts is estimated around 350 U.S. dollars (over 250,000 naira) per year.</p> <p>The automotive parts market today exist in clusters, yet over-flooded with lots of inferior and substandard parts. The items do not come cheap in accessibility and cost. The Team Basoma has identified an opportunity to present a platform that ensures <i>easy accessibility</i> to <i>quality spare parts</i> at <i>affordable prices</i>.</p>
<b>Problem Statement</b>	<p>The Nigerian automobile community is underserved with numerous untrustworthy spare parts dealers, difficulty to quality, and unregulated price mechanisms systems that discourages car users. Mostly exist is traditional brick-and-mortar stores that dominate the spare parts market in Nigeria, making it inconvenient for customers to locate and find the specific parts they need.</p> <p>This often involves visiting multiple stores and negotiating prices, resulting in a time-consuming and frustrating experience.</p> <p>Furthermore, the prevalence of counterfeit spare parts poses significant risks, as they compromise the safety and performance of vehicles.</p>

	<p>So also, efficient logistics for prompt delivery of spare parts to other states, remain a challenge. These factors hinder the community's ability to access quality spare parts at reasonable prices and grow a thriving automobile knowledge-based community.</p>
<b>Solution</b>	<p>BASOMA version 1.0, is an online platform catering to the automobile community in Nigeria. It serves as a one-stop destination for automobile owners, enthusiasts, automobile repair experts and businesses to buy, sell, and exchange knowledge on vehicle parts and automobiles.</p> <p>The platform aims to create a thriving community by connecting individuals with shared interests and providing them with a user-friendly and secure online marketplace.</p>
<b>Purpose</b>	<p>Users can explore an extensive inventory of genuine parts, enabling them to find the specific components they need for repairs or modifications. Sellers can effectively showcase their products, while buyers can make informed decisions based on detailed descriptions and seller ratings.</p>
<b>Scope</b>	<p>Basoma Autoworks does not involve the physical production, distribution, or handling of spare parts.</p> <p>Additionally, the project does not include the provision of automotive repair or maintenance services.</p>
<b>Limitations</b>	<p>Limitations and constraints that may impact the project development include technological challenges, such as ensuring platform scalability and security to accommodate potential growth in user traffic.</p> <p>Regulatory compliance and alignment with industry standards, including those set by the Standard Organization of Nigeria (SON) and other relevant bodies.</p> <p>Time constraints and resource allocation also influenced the project timeline and deliverables.</p>
<b>Significance</b>	<p>The Basoma Autoworks project is of paramount importance as it addresses a critical need in the Nigerian automobile spare parts industry. By providing a convenient, reliable, and trusted online platform.</p> <p>This transformative solution not only streamlines the spare parts trading process but also enhances the overall efficiency and credibility of the industry. Basoma Autoworks' contribution lies in fostering a thriving</p>

	automotive ecosystem, promoting trust among stakeholders, and driving the nation's automotive industry towards a future of convenience, authenticity, and innovation.
<b>Methodology</b>	<p>The methodology employed for the Basoma Autoworks project involve a combination of extensive market research and user surveys for data analytics and business insight.</p> <p>Market research is employed to curate data to understand the existing and potential needs of the market.</p> <p>User research is conducted through survey and feedback was used to understand user preferences and pain points.</p> <p>Design Process: Created detailed designs for the chosen concepts, including low and high-fidelity wireframes.</p> <p>Developed prototypes of the web application to test usability, functionality, and performance.</p>
<b>Data</b>	<p>The sources of data are primary and secondary.</p> <p>User Surveys: Surveys were conducted to gather qualitative data on user preferences, pain points, and satisfaction levels. The surveys were administered through e-forms and word of mouth.</p> <p>External Data Sources: External data, such as automotive industry reports, market trends, and regulatory standards from organizations like the Standard Organization of Nigeria, were used for market analysis.</p> <p>Microsoft PowerBi and Microsoft Excel were used to extract, transform, and visualize the data.</p>
<b>Timing</b>	1 month
<b>Status</b>	In progress
<b>Deliverables</b>	The final deliverables for Basoma Autoworks include a user-friendly web application with comprehensive features such as user authentication, spare parts search, cart management and checkout, inventory, and order management. It is developed to house a vast catalogue of genuine spare parts sourced from reputable sellers.

	<p>The platform promotes community interaction through forums, ratings, and reviews. Clear user documentation will guide users through registration and other functionalities. A streamlined seller onboarding process with verification mechanisms will ensure credibility. Quality assurance reports and a maintenance plan will ensure smooth functioning and customer support. Data privacy documentation.</p>
<b>Strategic alignment</b>	<p>By forging strong partnerships with crucial entities Basoma Autoworks aims to create a unified and impactful ecosystem that benefits all stakeholders.</p> <ul style="list-style-type: none"> <li>• Association of Spare Part Sellers: Basoma Autoworks will empower spare part sellers to expand their reach and engage with a broader customer base.</li> <li>• Standard Organization of Nigeria (SON): All products sold by seller must be SON standard. Defaulters will be flagged after a reasonable amount of report.</li> <li>• Association of Mechanics</li> <li>• Federal Road Safety Corps (FRSC): By aligning with FRSC, Basoma Autoworks aims to promote awareness of road safety standards and encourage users to prioritize genuine and certified spare parts for their vehicles.</li> <li>• Other Important Bodies</li> </ul>
<b>Metrics</b>	<p><b>Product Metrics</b></p> <ul style="list-style-type: none"> <li>• Conversion Rate: This metric measures the percentage of website visitors who complete a desired action, such as making a purchase or signing up for an account.</li> <li>• Customer Acquisition Cost (CAC): CAC measures the average cost incurred to acquire a new customer. It includes marketing expenses, sales team costs, and other related costs.</li> <li>• Customer Retention Rate: Customer retention rate measures the percentage of customers who continue using Basoma Autoworks over time.</li> <li>• Order Fulfillment Time: This metric tracks the time it takes from the placement of an order to its fulfillment and delivery.</li> <li>• Seller Satisfaction: Surveying and tracking seller satisfaction helps gauge how well Basoma Autoworks is meeting the needs and expectations of spare part sellers.</li> <li>• Buyer Satisfaction: Similarly, monitoring buyer satisfaction provides insights into the platform's ability to meet the needs of buyers, deliver authentic spare parts, and offer a seamless user experience.</li> </ul>

	<ul style="list-style-type: none"><li>• Community Engagement: Monitoring community engagement metrics, such as the number of discussions, posts, and interactions within the platform's community, reflects the level of user involvement and collaboration.</li><li>• Return Rate: Tracking the rate of returned products helps identify any issues with product quality, authenticity, or other factors affecting buyer satisfaction.</li><li>• Website Traffic and User Activity: Analyzing website traffic, user activity, and click-through rates provides insights into user engagement and the effectiveness of marketing efforts.</li><li>• Revenue and Gross Margin: Monitoring revenue and gross margin helps evaluate the financial health and profitability of Basoma Autoworks.</li></ul> <p><b>Performance Metrics</b></p> <ul style="list-style-type: none"><li>• Turnaround Time: We tracked the time taken to complete various automotive repair and maintenance tasks. This metric aimed to assess the efficiency of the workshop in handling customer requests.</li><li>• Customer Satisfaction: We collected feedback from customers to gauge their overall satisfaction with the services provided by Basoma Autoworks.</li><li>• Error Rate: We recorded the number of errors or reworks encountered during the repair process to assess the accuracy and quality of the work performed.</li></ul>			
Personas	Alex, a tech-savvy car enthusiast seeking a reliable online platform like Basoma Autoworks to easily find and purchase genuine spare parts for his vehicle.			
	<b>Criteria</b>	<b>Basoma Autoworks</b>	<b>Meckson Autoworks</b>	<b>Speedy Autoworks</b>
	Reputation	Strong reputation for high-quality services and exceptional customer satisfaction.	Specialization in luxury car repair and maintenance.	Emphasis on quick and efficient services
	Expertise	Broad expertise in handling various	Specialized in luxury car repair and	Quick servicing and efficient repairs.

		automotive repair and maintenance tasks.	maintenance.	
	Diagnostic Equipment	Advanced diagnostic capabilities.	Use of genuine OEM parts and skilled technicians.	Efficient diagnosis with quick turnaround.
	Online Booking	User-friendly online booking platform.	N/A	N/A
	Geographical Presence	May have limited geographical presence.	May have limited geographical presence.	Wide network of service centers.
	Pricing	Competitive pricing.	Premium pricing for luxury car owners.	Budget-friendly pricing.
	Market Focus	General market focus.	Niche focus on luxury car owners.	General market focus.
Use cases	<ul style="list-style-type: none"> <li>• User Registration: New users can create an account on Basoma Autoworks by providing their email or social media credentials, enabling them to access personalized features and benefits.</li> <li>• Spare Parts Search: Users can search for specific spare parts based on their vehicle make, model, and year, ensuring they find the exact components they need.</li> <li>• Product Purchase: Users can add selected spare parts to their cart and proceed to a secure checkout process, making convenient purchases on the platform.</li> <li>• Order Tracking: Users can track the status of their orders, including shipment updates and estimated delivery dates.</li> <li>• Seller Profile Management: Sellers can create and manage their profiles, add products to their inventory, and update product availability and pricing.</li> <li>• Community Interaction: Users can engage in discussions, leave ratings and reviews for sellers, and participate in a vibrant automotive spare parts community.</li> </ul>			
Tools	<ul style="list-style-type: none"> <li>• GitHub</li> <li>• Visual Studio Code</li> <li>• Figma</li> </ul>			

	<ul style="list-style-type: none"> <li>• PowerPoint</li> <li>• Ms. Planner</li> <li>• Teams</li> <li>• Whimsical</li> <li>• Ms. Word</li> </ul>
<b>Languages</b>	<ul style="list-style-type: none"> <li>• HTML</li> <li>• CSS</li> <li>• Java Script</li> <li>• PHP</li> <li>• Hack</li> </ul>
<b>Assumptions</b>	<ul style="list-style-type: none"> <li>• Assume that users have access to a stable internet connection and modern web browsers or mobile devices to access the Basoma Autoworks platform.</li> <li>• Assume that users have basic knowledge of using online platforms, including registration, search, and checkout processes.</li> <li>• Assume that sellers have valid business credentials and provide accurate product information and pricing.</li> <li>• Assume that users will provide accurate vehicle details during the spare parts search to get relevant and suitable results.</li> <li>• Assume that sellers will comply with platform policies and standards, including providing genuine and quality spare parts.</li> <li>• Assume that the integration with third-party services, such as payment gateways and shipping providers, will work seamlessly to facilitate smooth transactions.</li> <li>• Assume that there will be ongoing efforts to update and maintain the platform, addressing any technical issues and security vulnerabilities promptly.</li> <li>• Assume that the automotive industry and relevant regulations in Nigeria will remain relatively stable throughout the project's development and operation.</li> </ul>
<b>Investment required</b>	5,000 USD. However, we intend to bootstrap by leveraging on the skills and expertise of the team members
<b>Business Case</b>	First 6 Months Sales is free for Sellers

	Buyers purchase for free		
	Buyers can use an Escrow service to secure trust		
	Total Addressable Market (TAM)		11.8 million
	Serviceable Available Market (SAM) (40% of Maximum Opportunity that is Eligible)		4.7 million
	Serviceable Obtainable Market (SOM): Conversion rate (Industry/business conversion rate 10%)		470,000
	Average Purchase Amount		₦50,000
	Advertising and Sponsorships: (1% on every sales)	₦500	5% of 470,000= 23,500
	Commission on Premium Seller Accounts: (1% on every sales)	₦500	10% of 470,000= 47,000
	Commission on Escrow Service: (1% charged on buyers)	₦500	470,000
	Sales of Data Insights and Analytics: ***	₦1,000,000	10
	Expected Revenue in Year 1		₦280,250,000
	Expected Revenue in Year 2		20% Growth
	Expected Revenue in Year 3		20% Growth
Product architecture and Core Features	The main components of the product architecture are as follows:		
	<p>Front-End Interface: The front-end interface (Landing page) is the user-facing part of the platform, accessible through a web application. It is designed with a user-friendly layout and responsive design to ensure smooth interactions across various devices.</p> <p>User Authentication and Profiles: This component handle user registration, login, and profile management. It allow users to create and update their profiles, enabling them to access personalized features and preferences.</p>		



	<p>Search and Browse Functionality: The search and browse component enable users to find specific spare parts based on vehicle make, model, and year. It include filters and sorting options to enhance the search experience.</p> <p>Product Listings and Catalog: This component is to showcase the extensive catalog of spare parts available on the platform. It displays detailed product information, pricing, and seller details.</p> <p>Cart and Checkout: The cart and checkout component is to facilitate the seamless addition of selected spare parts to the cart and the secure payment process.</p> <p>Order Management: This component is to handle order processing, tracking, and notifications, ensuring a smooth and transparent order fulfillment process.</p> <p>Seller Management: The seller management component is to enable sellers to create and manage their profiles, add products to their inventory, and update product availability and pricing.</p> <p>Community Interaction: This component is to facilitate community engagement through discussion forums, ratings, reviews, and knowledge-sharing features.</p> <p>Data Storage and Management: The product architecture is to include a robust database to store and manage user information, product details, and other platform-related data securely.</p> <p>Security and Authentication: Security components is to ensure data privacy, secure payment processing, and protection against unauthorized access.</p> <p>Integration with Third-Party Services: The product architecture may involve integrating with third-party services such as payment gateways, shipping providers, and analytics tools.</p>
User Stories and Acceptance Criteria	<a href="#">BASOMA USER STORIES.xlsx</a>

<b>User experience (UX) and user interface (UI)</b>	 <pre> graph TD     subgraph Merchant [Merchant New &amp; Existing User]         LP1[Landing Page] --&gt; S1[Sign Up/ Login]         S1 --&gt; P1[Setup Profile]         P1 --&gt; U1[Upload Inventory]         U1 --&gt; OM[Order Management]     end      subgraph Customer [Customer New &amp; Existing User]         LP2[Landing Page] --&gt; S2[Sign Up/ Login]         S2 --&gt; P2[Setup Profile]         P2 --&gt; S3[Shop Merchant Stores]         S3 --&gt; AC[Add to Cart]         AC --&gt; Pay[Payment]     end      subgraph Community [Community]         Eng[Engage] --&gt; Sup[Support]     end      LP1 --&gt; LP2     LP2 --&gt; Eng </pre> <p>The diagram illustrates the user experience and user interface (UI) for Basoma Autoworks, showing the flow for three user types: Merchant New &amp; Existing User, Customer New &amp; Existing User, and Community.</p> <ul style="list-style-type: none"> <li><b>Merchant New &amp; Existing User:</b> The flow starts with a Landing Page (yellow), followed by Sign Up/ Login (grey), Setup Profile (grey), Upload Inventory (green), and Order Management (grey).</li> <li><b>Customer New &amp; Existing User:</b> The flow starts with a Landing Page (yellow), followed by Sign Up/ Login (grey), Setup Profile (green), Shop Merchant Stores (grey), Add to Cart (grey), and Payment (pink).</li> <li><b>Community:</b> The flow starts with a Landing Page (yellow) that leads to an Engage (yellow) box, which then leads to Support (grey).</li> </ul>
<b>Team</b>	<p>Building Basoma Autoworks would require a diverse and skilled team with expertise in various areas. Here are the key roles that should comprise the team:</p> <ul style="list-style-type: none"> <li>Olawale Ale- Product Manager (Team Lead)</li> <li>Adeseyi Adeyeye- Product Designer</li> <li>Mercy Bamisaye- Frontend Developer</li> <li>Blessing Bayode- Backend Developer</li> <li>Saheed Junaid- Frontend Developer</li> <li>Aziz Ogunlayi- Product Manager</li> </ul>
<b>Notes</b>	<p>Basoma Autoworks Project on Github: <a href="https://github.com/MercyBamisaye/BASOMA-Autoworks">https://github.com/MercyBamisaye/BASOMA-Autoworks</a></p>

User stories: [BASOMA USER STORIES.xlsx](#)

Distribution of market value of automotive parts in Nigeria in 2018, by market segment:

<https://www.statista.com/statistics/1192580/market-value-distribution-of-automotive-parts-in-nigeria/>

Africa Automotive Directory:

[https://importers.africa-business.com/automotive\\_importers\\_database.html](https://importers.africa-business.com/automotive_importers_database.html)

Nigeria's Automotive Market:

<https://auto-parts-africa.com/post/nigerias-automotive-market>