

Final Website Plan Paper: Luki's Garage Network

1. Project Implementation Summary and Changes

The implementation of the Luki's Garage Network (LGN) site adhered closely to the initial design proposal. No significant functional or structural changes were made to the core plan, ensuring the final product aligned with the goal of creating a "single source of truth for complex maintenance."

Key Implementation Details:

- **Pages:** The required 5-7 pages were met by creating five core parent pages (index.html, my_garage.html, technical_library.html, parts_tools.html, community.html), plus a dedicated project_docs.html page (totaling 6 main files plus the external stylesheet).
- **Aesthetics:** The Deep Charcoal Gray, Racing Red, and Metallic Silver palette was maintained via the external stylesheet, style.css.
- **Links:** The Project Documentation page was successfully linked to the provided proposal file (annotated-_luki's garage network.docx.pdf).

2. Design and Aesthetics

Why did you choose the colors and theme for your web site?

The colors and theme were chosen to reflect the target audience and the industry: high-performance automotive enthusiasm.

- **Deep Charcoal Gray (#121212)/Near-Black:** This color provides a high-contrast, professional, and sophisticated background, mimicking materials often found in high-end vehicle interiors (carbon fiber, matte finishes) and professional garage environments (black tools, shadow gaps). It immediately establishes a serious, performance-focused tone.
- **Racing Red (#FF3A3A):** Red is universally associated with speed, power, urgency, and warnings—all critical concepts in automotive tuning and diagnostics. It is used strategically as the main accent color for calls-to-action (CTAs), primary headings, and navigation indicators, drawing the user's eye to the most important interactive elements and data points.
- **Metallic Silver (#CCCCCC):** This is used for structural elements, secondary text, and borders. It represents metallic components, precision, and machinery, reinforcing the site's focus on verified, reliable technical content.

The combination creates a theme that is both visually appealing to car enthusiasts and functionally effective for data presentation, ensuring high readability against the dark background.

3. Navigation Structure and Effectiveness

How did you develop the navigation structure for your site? Why do you feel that

it is effective?

The navigation structure utilizes a **Global Persistent Header** accessible on every page, featuring five main parent links:

1. **Home (index.html)**: Marketing and general information.
2. **My Garage (my_garage.html)**: The personalized, contextual hub.
3. **Library (technical_library.html)**: The primary data source.
4. **Parts & Tools (parts_tools.html)**: The utility and commerce hub.
5. **Community (community.html)**: The interaction and support hub.

Effectiveness:

- **Speed and Context:** The structure is effective because it is **flat and comprehensive**. The target audience (DIY mechanics working on projects) often requires immediate access to specific information. By having all major sections accessible from the main header, the user can jump from managing their vehicle in *My Garage* to searching a guide in the *Library* without delay.
- **Consistency:** The navigation layout and coloring remain identical across all seven pages, meeting the requirement for a consistent look and feel and drastically reducing cognitive load for the user.
- **Accessibility:** The nav element and standard ul/li structure provide clear semantic markup for screen readers, and the use of the .active class clearly identifies the user's current location visually.

4. Multimedia Usage

Did you effectively use multimedia? Why were the files included in your site?

Yes, multimedia was used effectively to meet both functional and aesthetic requirements.

- **Five Graphics (Placeholders in index.html):** Five distinct img elements were included on the Home page (index.html) using placeholder URLs. These were chosen to visually represent the core services (Forced Induction, Suspension, ECU Tuning, Wiring, and Brakes). They serve to break up large blocks of text, reinforce key concepts, and make the page visually engaging for the target audience. The use of the alt attribute on every image ensures compliance with accessibility standards.
- **Embedded Video (project_docs.html):** A video element (<video>) was included on the project_docs.html page to embed the required final project presentation (.mp4). The use of the HTML5 <video> tag is the standard, effective, and accessible way to embed a standalone video file. It allows for native controls (controls) and responsiveness (width: 100%). This fulfills the requirement for including "another form of multimedia."

5. Audience Alignment

Did you build a site that matched your described audience? How did you meet their needs in terms of technical ability, reason for visiting the site, etc?

Yes, the site was built to match the described audience: **experienced hobbyists and dedicated DIY mechanics (Ages 20-50, Moderate to Upper-Middle class).**

Audience Need	Site Implementation	Technical Rationale
Technical Ability (High)	Use of specific, accurate terminology (e.g., "Digital Build Sheet," "Torque Specs," "ECU Flashing," "Part SKU").	Avoids overly simplistic language; respects the user's technical knowledge and provides confidence in the source.
Reason for Visiting (Reliability)	The Technical Library is the primary resource. Navigation labels emphasize "Verified" and "Trusted" status.	Directly addresses the problem identified in the proposal: the need for a "single source of truth" over scattered forum information.
Primary Task (Part Fitment)	Parts & Tools page features a dedicated Compatibility Checker input field.	Acknowledges the most common and costly mistake in the DIY community (buying incompatible parts) and provides a direct utility to solve it.
Aesthetics/Tone (Professional/Performance)	Dark, high-contrast theme (style.css) with Racing Red accents.	Appeals to the aesthetic preferences of performance enthusiasts (as detailed in Section 2) while maintaining high data readability.

6. Technical Element Breakdown

The following is an outline of the main HTML, CSS, and image elements used across the site.

HTML Elements (Key Tags Used and Rationale)

Tag	Page(s) Used	Rationale
<!DOCTYPE html>	All	Mandatory. Declares the

		document type as HTML5, enabling modern rendering and browser features.
<meta name="viewport">	All	Mandatory. Ensures the site is responsive across devices (mobile, tablet, desktop) by controlling the page's dimensions and scaling.
<link rel="stylesheet">	All	Links the external style.css file, meeting the requirement for external style sheets and enforcing a consistent look across the entire site.
<header> & <nav>	All	Provides semantic structure for the global navigation. <nav> explicitly defines the main navigation links for accessibility.
<main>	All	Defines the primary content of the document, separating it clearly from the header and footer for better semantic understanding and SEO.
<footer>	All	Contains persistent site information, copyright, and the mandatory contact information/notice.
	index.html	Used to include visual graphics. Crucially, the alt attribute is provided for every image to ensure accessibility and compliance.

<form>	community.html, parts_tools.html	Groups interactive form controls. Used specifically for the contact form and the compatibility checker input, respectively.
<video>	project_docs.html	Embeds the required multimedia (project presentation .mp4). The controls attribute provides the necessary user interface (play, pause, volume).
<table>, <thead>, <tbody>	technical_library.html	Used ONLY for displaying data (recent documents and verification status), adhering to the requirement to avoid table-based layouts.
id attributes	All	Used for creating direct internal links (e.g., id="hero-title") and for targeting specific sections with CSS or future JavaScript interactions.

CSS Elements (Main Structural and Design Rationale)

CSS Feature	File(s) Used	Rationale
:root Variables	style.css	Defines the central color palette and font family names (e.g., --color-primary-bg, --color-secondary-accent). Ensures consistency and ease of future modification.
@import url()	style.css	Imports Google Fonts (Roboto Condensed, Inter,

		Roboto Mono) to establish unique typography for headings and data fields.
.container	style.css	A reusable utility class to set a max-width (1200px) and center the content (margin: 0 auto), creating defined horizontal boundaries.
.grid-layout	style.css	Core CSS Layout. Uses CSS Grid (display: grid) with repeat(auto-fit, minmax(300px, 1fr)) to create a fully responsive, flexible layout without using tables.
position: sticky	style.css (on header)	Ensures the main navigation remains visible at the top of the viewport when the user scrolls, maintaining instant access to navigation.
@media (max-width: 768px)	style.css	Responsiveness. Adjusts the flex layout of the header/navigation to stack vertically on smaller screens, optimizing usability on mobile devices.