Case Study — Dome Software Homepage Redesign Implementation

1. Project Overview

In 2025, Dome Software undertook a full homepage redesign to better reflect its evolving brand, improve accessibility, and boost site performance. While the design work was handled by the company's design team with feedback and direction provided by myself and my superior, Matthew Lowe, I was responsible for implementing the redesign from the provided mockup files and ensuring the final product met performance, SEO, and accessibility goals.

My role involved converting the static design into a functional, responsive, and optimized webpage while applying best practices for search engine visibility, speed, and compliance with the Americans with Disabilities Act (ADA).

2. Objectives

The project aimed to:

- Modernize the homepage to align with the company's updated brand guidelines.
- Improve usability and mobile responsiveness for all visitors.
- Enhance SEO through structured content, metadata, and semantic HTML.
- Achieve full ADA compliance for accessibility.
- Boost performance scores and reduce page load times.
- Increase the customer site visit to conversion rate.

3. My Role

As the lead developer for the implementation phase, my responsibilities included:

- Translating Figma designs into clean, responsive HTML, CSS, and JavaScript.
- Optimizing images, scripts, and styles for faster load times.
- Incorporating metadata, alt text, and structured content for SEO.
- Ensuring all accessibility criteria were met, including ARIA attributes, proper heading structure, and sufficient color contrast.
- Conducting quality assurance testing across multiple browsers and devices.

4. Process

Step 1 — Review & Preparation

- Analyzed the Figma files for layout, spacing, and component structure.
- Identified potential performance and accessibility issues early in development.

Step 2 — Development & Integration

- Built a mobile-first, responsive layout using HTML5 and modern CSS features such as Flexbox and Grid.
- Implemented semantic HTML to improve both accessibility and SEO.

Step 3 — Optimization

- Compressed and optimized images using next-gen formats.
- Minified CSS and JavaScript for faster load times.
- Reduced cumulative layout shift by defining image and video dimensions.

Step 4 — Accessibility Compliance

- Added descriptive alt text to all images.
- Ensured sufficient color contrast according to WCAG 2.1 guidelines.
- Verified keyboard navigability and ARIA label accuracy.

Step 5 — Testing & Deployment

- Conducted cross-browser/device testing on Chrome, Safari, Firefox, and Edge.
- Performed final performance and accessibility audits using WAVE Web Accessibility Evaluation Tools and PageSpeed Insights before deploying to production.

5. Results

- **Performance:** 75% → 97% (**+29% increase**)
- **Accessibility:** 95% → 100% (**+5% increase**)

- **Best Practices:** 78% → 93% (**+19% increase**)
- **SEO:** 82% → 92% (**+12% increase**)

6. Key Takeaways

This project reinforced the importance of considering accessibility and performance from the start of development, not as afterthoughts. It also demonstrated how small optimizations, like asset compression and semantic structure, can have a major impact on both user experience and SEO rankings.

7. Links

- **Live Homepage**
- **GitHub Repository**