Web Application Development Project for Unilamp Company

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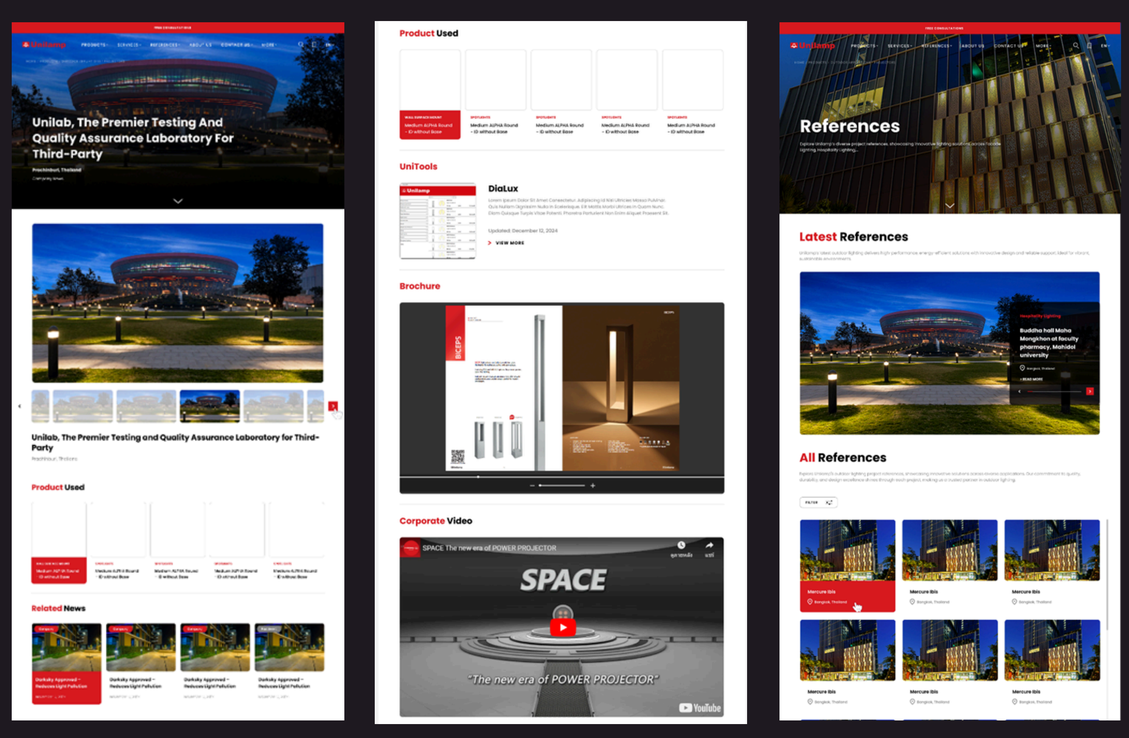
ABSTRACT

This cooperative education project details the development of a modern web application for Unilamp Company, a platform designed to showcase lighting products and company operations. The client's previous website suffered from design limitations and inefficient back-end management. To address these issues, a new system was engineered using the Next.js framework for the frontend and a WordPress Content Management System (CMS) for the backend. Key technical contributions included translating Figma designs into a functional user interface and implementing a data serializer for the WordPress API. The resulting application successfully delivered a user-friendly experience and streamlined back-end operations, eliminating the need for technical specialists to manage the platform.

INTRODUCTION

Conducted at Smartsoft Asia Co., Ltd., a software development company, this project developed a modern web application for Unilamp Company to effectively showcase its lighting products and brand operations. Because the previous website suffered from design limitations and complex back-end management , this redesign focused on delivering a user-friendly frontend. A core objective was to streamline back-end data management and reduce system complexity, empowering non-technical staff to easily maintain the platform.

User Interface (UI) Design



Figma mockup illustrating the responsive product catalog grid.

TECHNOLOGY

Frontend Framework		Development & Design		Version Control & Collaboration	
Next.js	Tailwind CSS	VS Code	Figma	GitHub	Slack

METHODOLOGY



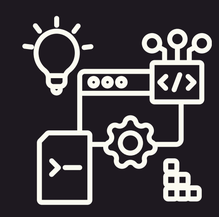
Requirement Analysis & Sprint Planning



Frontend Architecture Setup (Next.js framework)



UI Implementation (Figma Design)



API Integration & Data Serialization (WordPress API Data Mapping for UI)



Quality Assurance (Black-box testing)

CONCLUSION

The web application development project for Unilamp was successfully executed, fulfilling all defined system objectives. This cooperative education experience at SmartSoftAsia Co., Ltd. provided valuable practical training, enabling the student to participate in a real-world software development lifecycle. By successfully addressing the limitations of the previous system, the newly developed website fully met the client's requirements. The platform is now ready to be effectively utilized in Unilamp's real-world business operations.

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