Success Story

Developing a pharmacy management system for New Zealand based healthtech firm: Script Sense

Customer	Country	Industry
Script Sense	New Zealand	Healthcare

About The Client

Script Sense is a New Zealand-based company that provides a comprehensive pharmacy management system. Their platform streamlines prescription processing and ensures immediate access to patient data and medication interactions. Their platform not only facilitates efficient workflow but also keeps pharmacies in line with the updated industry regulations.

Technology Stack

Redux	nest
React	node.js

Business Situation

Script Sense identified a gap in the prescription fulfillment process caused by outdated prescription transfer methods from medical practitioners to pharmacists, resulting in delays and inaccuracies.

Pharmacies and the patients they served, faced various challenges, including medication dispensing errors due to manual processes, excessive paperwork, time-consuming insurance claims processing, and changing payment rates. On top of this, pharmacies needed to keep up with many regulations related to prescriptions and controlled substances, which required a lot of manual effort and attention to detail.

Script Sense recognized the need for a more efficient system to streamline prescription fulfillment and improve patient safety. The aim was to create a comprehensive platform that could manage more than just medication orders.

Our client wanted a pharmacy management system designed to digitize prescription transfers and optimize pharmacists' workflows. The system aims to streamline prescription processing, improve medication dispensing accuracy, and facilitate efficient patient education and billing through a user-friendly platform.

In order to turn their vision into a market-fit product, the client required a technology partner with expertise in healthcare software development and a strong grasp of pharmaceutical standards, compliance, and terminology. They chose Daffodil Software for its cost-effective and innovative approach along with a consistent record of providing healthcare IT solutions.

Key requirements:

- Develop a solution for the proposed application, including suggesting the most efficient software architecture, technology stack, and UI/UX design.
- Implement advanced security measures to protect sensitive patient information and comply with healthcare regulations.
- Develop a user interface that is easy to navigate for patients, pharmacists, and administrative personnel.
- Incorporate features such as prescription management, inventory tracking, real-time alerts, and a patient portal for managing prescriptions and personal health information.
- Establish an access control policy that assigns appropriate permissions to different user roles, such as pharmacy managers, staff pharmacists, and medical practitioners, to maintain data integrity and privacy.

The Solution

The project began with a product discovery workshop, where the Daffodil team and the client came together to discuss the project's goals, target audience, and specific requirements. This collaborative session was crucial for aligning the vision, defining the scope, and identifying key features that would drive value for the end users.

Following the product discovery phase, our business analysts conducted detailed research to determine what users look for when selecting a pharmacy management system. The research helped us identify critical features for our system, such as the ability to search for medications, inventory management, and process various insurance plans.

Our software architects designed a system plan with a strong emphasis on scalability and security. They outlined user journey maps to define the system's interface and optimize the workflow. React JS was employed for the front end to ensure a visually appealing and smooth user experience. Node.js was selected for backend development due to its effectiveness in handling complex applications.
The platform was designed to include robust security measures for data security and compliance with the Health Information Standards Organisation (HISO). Secure data storage, two-factor authentication, role-based access controls, and end-to-end encryption are implemented to ensure the protection of patient information.

Our team has integrated Azure cloud services into the system to provide real-time analytics and modern cloud features, equipping the pharmacy industry with future advancements.

Some of the key features are as follows:

Inbox and prescription management:

Our team created a centralized dashboard to facilitate the efficient management of prescriptions coming from different sources, such as walk-ins and telephone inquiries. The design incorporates an accessible table layout and quick-action buttons for straightforward navigation and administration.

Dispense management:

Our team designed this feature specifically for the paperless New Zealand ePrescription Service (NZePS), which simplifies the prescription filling process and provides continuous access to a patient's medication history. This feature allows pharmacists to easily dispense multiple prescriptions from a single interface, greatly improving workflow efficiency.

We also incorporated NZePS into the system to enhance the management of e-prescriptions. Alongside this, we've included the New Zealand Formulary (NZF) for current medical information.

The system uses the National Health Index (NHI) to reliably identify patients and the Health Provider Index (HPI) to facilitate seamless communication with healthcare providers, making the healthcare processes smoother in New Zealand.

Inventory management:

A robust inventory management system was developed to streamline the process for pharmacists by consolidating all inventory tasks on a single module. The system simplified the managing, tracking, and reordering of stock items, making it more efficient and user-friendly.

It also ensured that inventory levels were appropriately maintained to meet patient requirements while enabling real-time monitoring for timely decision-making, reducing the probability of running out of stock or overstocking.

Compounds:

A compounded medication is a drug that a pharmacist prepares by mixing individual ingredients to meet the specific instructions of a doctor's prescription. This feature was designed to simplify the process of making compound medications for pharmacists and provide all the important information, including funding details, on a single page for easy access. It automates the paperwork, ensures dosage and ingredient safety, and logs any modifications to formulas.

We ensured that this feature is secure and compliant with healthcare regulations, and it integrates seamlessly with the pharmacy's existing systems to enhance pharmacists' efficiency.

Claims management

Additionally, our development team incorporated a claims management system that streamlined the insurance claims processing for pharmacies. By integrating with insurance systems like Proclaims through API integration, claims were processed quickly and accurately.

Our health IT experts ensured that patient and billing information remains secure through strong data encryption methods, meeting healthcare regulations, and protecting patient privacy.

The Impact

By deploying a tailor-made pharmacy management system, Script Sense transformed the prescription fulfillment process, which led to the enhancement of operational efficiency and patient safety. The system's implementation resulted in an improvement in prescription accuracy and a significant reduction in administrative burdens. The streamlined insurance claim processing and an up-to-date regulatory compliance framework further empowered pharmacists to concentrate on delivering patient-centric care.

Services Used

- Patient Portal Development
- Healthcare Software Development