



Case Study



Icreon

A Storefront Implemented Using .Net Framework

In its endeavor to provide value-added services to its customers, our client revamped their e-commerce storefront. The enhanced storefront provides category management tools to classify books & multimedia CDs, while incorporating powerful search capabilities and enhanced online transaction processing within the user interface. In addition, it provides up-selling capabilities, implemented by generating advanced queries through the SQL Server 2000 database. Designed for a global customer base, the solution provides seamless accessibility and secure online shopping to customers.

Customer Profile

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Business Requirements

Our client retails its range of products comprising of books and CDs, through its online storefront. Launched in 1998, the website is an e-commerce storefront that enables customers to search for products, place orders, make payments online, and also track their orders. Use of robust and futuristic technology that would allow easy integration with third-party software and mobile devices at a later date was a key consideration for our client. The storefront had to be overhauled keeping precisely this in mind.

Leveraging Functionality for an Enhanced Customer Experience

Benefits

- Fully customized and administrator driven processes to regulate front-end features
- Comprehensive access to the product and order information
- Value-added features such as the Up-Sell Recommendation Engine* to further increase sales and to assist the customer to make a better buying decision
- ASP.NET/XML Web Service/SQL Server architecture for improved performance and scalability

Technologies used in developing this application are:



Up-Sell Recommendation Engine – refers to the “People who bought this book also bought” section in the website, which lists the products that were bought with a particular product. This section helps in promoting products and in turn, the sales for our client.

The website has been the key success factor behind increased sales volumes achieved by client. However, as trends in the e-commerce market changed, our client realized the growing need to enhance the functionality and upgrade the technology of the storefront.

They observed that it was slow to download and lacked features to manage its vast database of books and CDs. In addition, the organization intended a paradigm shift of the storefront in terms of its functionality and ease-of-use. These factors, eventually, led to the decision to completely overhaul the existing website.

Our client chose Icreon to develop an easy to use, scalable storefront with the end objective of improving customer experience and manageability of operations for the administrator.

The long-term goal for Icreon and our client was to develop a business-to-customer storefront that not only provided the essential storefront functionality but could also scale up to handle customer transactions and be able to provide better service to Libraries and institutional buyers in America, Europe, and Asia. The biggest challenge was to establish the website as a global online shopping storefront. We had to ensure that the storefront would be able to meet the service standards of customers, globally.

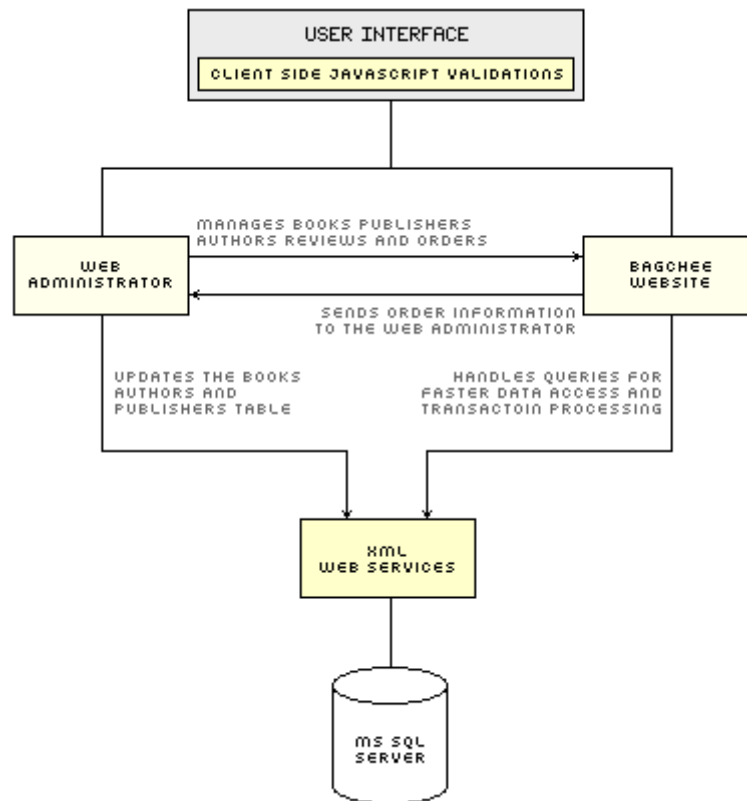
The success of the website totally depended on value additions that we provided in terms of technology, design, performance, and functionality.

Satisfying client expectations; Delivering high-end solutions; Meeting the restricted timeframe – It was all a part of our team’s daily schedule for this project. At each phase of development, the Icreon team interacted with our client to ascertain that the product met the desired expectations. This, in turn, gradually increased our client's confidence in us and steadily eliminated the chances of cohesion errors and requirement mismatch.

The website can be broadly broken into two extensive modules - the public portal and the administrator module. The public portal is accessible to all customers. They can view book titles, create user accounts, search for books & CDs, place orders through the storefront and also track their orders. The payments are coordinated through the VeriSign payment gateway, for high reliability and security.

The administrator needs to manage and validate all transactions that take place through the website. Using the administrator module, various administrative tasks can be performed, which include adding new books, publishers, authors, and CDs to the database and managing user accounts created through the website. The personal details and preferences as provided by customers while registering with the website, are stored in the database. The administrator can access this data and send offers and e-mails to prospective customers as per their preferences.

To provide a robust and more scalable solution, we suggested using the .NET framework.



We developed the website on a 3-tier architecture, providing a highly reliable and multithreaded environment. The front-end consists of ASP.NET for enhanced search capabilities and user account management for customers. JavaScript validations check user inputs while creating user accounts, entering search criteria, or performing administrative tasks. On the backend, the SQL Server 2000 database manages the records for books, authors, publishers and CDs. Using XML Web services as the middle layer, the request and response functionality is implemented for a distributed and platform independent setup, which increases data access and transaction processing for the storefront.

Summary

Developing the solution has been an invigorating experience for Icreon. The team has been able to comprehend and deliver the solution, better than its conceptualization. Exploiting the .NET technology to the core, we were able to achieve the desired aim of enhanced functionality and quality of service.