ABOUT THE CLIENT

BookFari is an Australia-based online store for buying and selling books and journals; and currently they are considering the expansion of their services to other countries. The website has a huge repository of more than 24 million titles, out of which 6 million are in stock and is the largest online retailer in the Australian domestic market. The business was set-up in 2011 and since then, there has been more than 25000 transactions, which keep on constantly scanning the world supply chain to find avenues to lower prices.

Buyers on the BookFari store also have the option to sell their old books and can pay for their purchases in multiple currencies. Buyers can make payments via multiple payment gateways such as Cyber Source, PayPal Express Checkout and SSL.

When the client approached us, they wanted to integrate an effective CRM into the system in addition to adding certain features to enhance user experience on the site. With this, cyber security was the foremost concern of the client to keep the online payments and transactions secured.

GOALS OF THE PROJECT

BookFari is one of our flagship projects. When we got introduced to the client BookFari, we made stringent efforts to realize the requirements of the client as it was first of its kind projects in our kitty. Although, we have developed many e-commerce websites and related back-end CRMs to support those, but developing a book selling and buying platform was new to us. Further, providing an incomparable cyber protection to avoid ransomware, DDOS or any other cyber attacks or threats was a significant goal of the project. The thorough understanding of the client requirements made it clear that there are layers of complexities involved in the development of this project as they were very specific about what they wanted. To get the best results out of the client's interest, we organized our goals, which also helped us in realizing the challenges involved in the project and accordingly channelizing the solutions to those.



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BOOK FARI

"Clavax have some of the most skilled developers and designers around. They have shown great attention to detail and delivered excellent work. Again and again. I have already hired them for other projects"

— Craig Scutella, CTO,BookFari Trading PTE LTD



CHALLENGES

BookFari was in need of a CRM tool to manage:

- Books from vendors and suppliers with reverse auction capabilities
- The online marketplace to make direct sales to customers.

We conducted a quick but thorough research to identify the areas that would ensure the most significant returns with enhanced efficiency. We then proposed a complete back-end CRM solution and front-end marketplace considering all the requirements of the client. Mentioned below are some major challenges faced by our team in the development of BookFari.





MANAGING DATABASE

As BookFari was planning to stock and store millions of titles in their marketplace along with a huge stock from suppliers all over the world, an adequately managed database was essential.





MULTICULTURAL

The application required multi-currency and multi-language support.



DIFFERENT API FORMATS FROM EACH SUPPLIER

Every supplier has unique APIs, so BookFari was in search of integrating a robust system that can accept different feeds and send orde formats to suppliers, directly from a single platform.



COMPLEX COMMISSION STRUCTURE

BookFari follows a really complex commission structure, hence the development and reporting of profit calculations was very challenging.



AMAZON MWS

The CRM needed to feed book details on the Amazon marketplace as well and hence the project required the integration of the Amazon Mobile Web Services API.



REVERSE AUCTION AND ELECTRONIC NEGOTIATION

Since it was an auction website, large amounts of traffic was expected, so the system being developed should adopt the cluster configurations if required to change at a later stage.



SECURE DATABASE

The project was supposed to incorporate an online payment gateway, which required a resilient and secure database, backed up with robust security technologies.



We developed the BookFari website in light of aforementioned challenges and succeeded in delivering the right solution. The back-end CRM solution that we provided/ providing offers functionalities like Wish List and Reverse Auction, Warehouse to manage inventory, orders and sales, administration for user-supplier management and wholesale distributors management. This entire system was developed using the 3-tier architecture of ASP.Net framework, strong SQLServer handling and optimal utilization of SSIS packages. Further, we used NTO Spider, a commercial web application security scanner, and Metasploit Pro, a suite of applications that compromise a penetration testing platform to deliver the project with the latest security defenses. As the site was already well-equipped with payment gateways like PayPal Express Checkout and CyberSource, there was not much to be done on this front except adding the multi-currency feature.

The client can use the online system to procure orders from customers, universities, libraries and local vendors from different corners of the world (mainly from the US, UK and Australia). Those orders are then fulfilled by getting online quotes and shipping the orders from the most economical location. Clavax is taking care of complete maintenance including support, further enhancement of features, functionality and now developing new modules of selling used books with which users will have the ability to sell the used books.





MENTIONED BELOW ARE SOME FEATURES OF THE CRM SYSTEM IMPLEMENTED:

WISH LIST AND REVERSE AUCTION

BookFari staff can upload wish lists (in excel format) with just one click. Once the wish list is uploaded, it is distributed to suppliers, who in turn, can bid on books and then electronic negotiations take place via a secure system.

ORDERS AND SALES

The site can receive external orders, manage customer orders, transfer sales, sales channels, receive and manage purchase orders, and manage bids.

WAREHOUSE

The site warehouse was designed to manage and maintain inventory (both old and new), price lists, m inventory loader, shipping details and book lists.

ADMINISTRATION

The system admin can manage user logs, parent roles, user roles, customers, suppliers, warehouses, etc. They can also maintain transaction logs, FTP logs and manage details of shipping carriers.

WHOLE SALE DISTRIBUTION

BookFari has a long list of wholesalers and distributors like MBS Textbook, The Book Depository and SuperbookDeals that can be easily managed with the CRM.

6. MARKETPLACE WEBSITE (BOOKFARI)

BookFari is an online book marketplace, where they are selling more than 24 million books (currently), out of which approximately 6 million is available as stock. This business was launched in 2011 and till date it has witnessed more than 25000 transactions. It is currently planning to expand its business into the global market.

Technologies Used

- ASP .NET FRAMEWORK 4.0
- C# LANGUAGE
- WCF & WEB SERVICES
- SQL SERVER 2008
- NTO SPIDER

- WINDOW SERVICES
- JQUERY & JSON
- AMAZON MWS
- ABE BOOKS AMP SERVICES
- METASPLOIT PRO



PROJECT MANAGEMENT AND ENVIRONMENT

We used the following third party tools for effectively developing and managing of the project:

JIRA and Green Hopper: We used JIRA for project management, which enabled the development team to strictly and effortlessly follow and stick to the development scheme. The whole project is divided into different verticals and further in tasks among a team of analyst; team leads, QA and developers.

MENTIONED BELOW IS THE EXAMPLE FOR ANY TASK WHICH NEEDS TO BE ACCOMPLISHED.

- New Requirements/Modifications/Issues posted by Business User/Analyst/QA in JIRA.
- BRD document prepared for all new tasks, alternatively, any explanation posted by QA in case it's an issue. The ticket/ task is in planning mode while preparing BRD, once document is complete we change the status to Design and then Ready for development.
- Team leads assign the project to different team members according to their availability and experience in working on similar tasks.
- Team member changes the status to "In progress" when he starts working on a task and hits the development resolved button once he finishes the task.
- The task goes into QA and as per QA outcome, QA hits the QA resolved or QA unresolved button. If its QA unresolved, then it is sent back to the developer to get the problem fixed, before sending it back to the QA for review. If a task passes QA then its QA resolved.
- Once QA resolved, the task goes to Analyst, and is in UAT stage. Analyst confirms the task at his end and inform business about the task, once the business and analyst are good task is UAT resolved and ready to go in Release Cycle.
- We have a weekly release cycle, prepared by release manager and distributed among teams. Team leads review could prepare and add their changes related to specific ticket in release branch. Release branch merged to trunk on release day.

