oodlesERP

Case Study

Developed a complete SaaS solution from the ground up for a US-based ERP service provider

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Summary

We worked with an American ERP+CRM service provider and assisted them to successfully develop a fully-customizable SaaS application platform. The solution comprised all major ERP modules to efficiently manage retail and manufacturing units. It helped the client to offer a fully-integrated business process management suite to small-scale manufacturers, distributors, retailers, and e-tailers based in the US. We also improved the application's user adoption by upgrading its Spring framework to version 4.0. Our team followed a systematic approach to get off the ground quickly and accomplish the tasks at hand in a phased manner.

Industry
eCommerce, supply chain, manufacturing

Users/customers
Manufacturers, Retailers, e-tailers

Tech Stack
Frontend
Angular 1, Angular 8, HTML-JavaScript

Backend
Groovy, JavaScript, Springboot, Hibernate, Bash Shell Script

Team Size
8 Oodlites

Challenges

Our client provides comprehensive business ERP solutions to small-scale retailers, wholesale distributors, manufacturers, and eCommerce buTech Stacksiness owners. Their software platform enables these entities to streamline complex processes such as inventory management, supply chain management, and financial accounting. They sought our services to develop a full-scale SaaS solution comprising dedicated ERP modules for retail and manufacturing processes. At the same time, they wanted to enhance their application's performance and user adoption to successfully target larger audience segments. As part of the project, we had to deal with the following challenges:

1. Developing modules to offer easy customizability

The SoW required us to develop ERP modules that are easy to customize and configure without any developer assistance

2. Implementing modules to enable business process automation

We had to develop and implement several modules to facilitate business process automation which was a challenging part.

3. Decoupling modules into microservices

To make the application lightweight, we had to decouple several modules (monolithic) into microservices. The process was complex and time-consuming.

4. Upgrading the application's Spring framework

The scope of work (SoW) required us to upgrade their Spring framework to version 4.0. Here, the main challenge was to deal with the dependency conflicts that arose due to different libraries of the two versions

5. Rendering additional support for sales forecasting

To implement the sales forecasting feature, we had to implement several third-party modules, thereby extending the proposed timeline.

Solution

We deployed a team of 8 ERP developers to kick off the project. Our developers carefully analyzed the client's existing software model as well as its Spring architecture. To achieve the required SaaS architecture, we used a tech stack including Springboot, Hibernate, and Bash Shell Script. Furthermore, our team formulated an effective execution strategy to seamlessly carry out the development in a phased manner.

1. Developed customizable ERP modules

With continuous efforts, we developed highly customizable ERP modules that are easy to scale and configure

2. Upgraded framework version to Spring 4.0

Our team added new dependencies to successfully upgrade the client's framework version to Spring 4.0. We also removed code redundancies to improve software performance.

3. Improved UI/UX designs

We followed a minimalistic approach to design and develop responsive, intuitive, and engaging user interfaces for different screens.

4. Optimized page loading speed

We optimized their existing CSS and JavaScript code and implemented a robust caching mechanism to significantly truncate the page load time.

5. Provided third-party integrations

Our team followed agile methodologies to seamlessly integrate their SaaS modules with the required payment methods and shipping services.

Results

We successfully completed the project within the stipulated time frame and achieved our client's requirements with the following deliverables:

1. Developed a full-scale SaaS solution for small-to-medium sized retailers and manufacturers
2. Developed dedicated ERP modules for varied business needs that are fully customizable and easy to configure
3. Provided a straightforward format for end-users to seamlessly migrate their data to the SaaS portal
4. Built a highly scalable ERP platform on the cloud where servers can replicate themselves to scale the increasing traffic
5. Integrated third-party modules to facilitate accurate sales forecasting
6. Successfully upgraded the Spring framework to version 4.0 for better user adoption

About Oodles ERP

Oodles ERP is a software services company that offers complete enterprise software development services with a focus on implementing next-gen technologies. With a proven track record in custom ERP development, we have successfully completed 50+ software projects related to CRM, HRM, inventory/warehouse, eCommerce, supply chain, and logistics. We are mainly focused on helping startups and small-to-medium enterprises to achieve digital transformation through cost-effective ERP software solutions.

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