

Account Management

Objective

Enterprise Resource Planning solutions are great, but successful implementation requires careful thought and consideration. The client required an accounting based management ERP system, where it required to have large data hosting, seamless migration of old data, easy scalability, multiple modules addition as needed and centralized access and control. The requirement also involved the data interpretation and synchronization to the cloud with number of users by their ERP system and by the mobile application. The requirement also involved the analytical reports of the data interpretation based on the transaction done by the user with authentication and authorization. The user can view the reports from the web and the mobile application as well.

1. Business Needs

- The continuously improved business process involved the values to deliver on time, every time is less critical to driving growth.
- This could be a big challenge for the client considering the nature of the industry, which works on extremely short life cycles. Therefore, an unblemished on-time delivery record is a climacteric mandatory success factor.
- The inherited system, however, lacked the flexibility to empower its tasks to retain showcase changes in the market. So that, the necessity of a hearty business procedure is executed to keep in front of rivalry, diminish overhead expenses, and enhance income.
- From an innovation perspective, the different existing frameworks, based on heterogeneous innovation stages, must be incorporated.

2. Strategy/Approach

To deliver the solution to such ERP system, our team had developed, tested and deployed the mobile and web applications. As it was a travel based booking system, the solution methodology for native application we followed, to use the multiple servers to manage the database, mobile and the web application hosting and the management of schedulers for different purpose.

The user can migrate the old data by uploading their CSV files to the system and also the user can generate the excel sheets or pdf for the analytical reports.

The schedulers were also developed to send the email notification and the SMS alert notifications to the users for events which has been made by them. We had used the data warehouse for our ERP system, where all the analytical data can be stored. This data was able to synchronize with the cloud where all the analytical reports were generated for the data transactions.

We have developed numerous APIs for all the business logics and for the third party integrations for payment gateway and for sending the email and the SMS notification alerts as well.

We have also developed the security algorithms. We have implemented the authorized token generation based security, where the user needs to verify the provided token. These tokens are generated with expiration times.

Our team has performed the stress testing, scalability and performance testing for the huge amount

of data, also the GUI testing was performed for all the forms, dialogues and validations.

3. Challenges

- The server management was the challenge, as our framework has numerous servers where various schedulers kept running on one server and the mobile and web application were dealing with various servers and furthermore there was distinctive database server also. Therefore, it was a challenge to deal with every one of the servers.
- Offline transaction data capture and synchronization.
- The multiple schedulers were confounded to make them keep running on an auspicious premise as required. Likewise preventing conflict between them was the fundamental vital to overseeing.
- The database management was also one of the constraints which we had to manage with the data ware house and the synchronization with the cloud.
- The client required to test the huge number of usage of the users somewhat like more than 1 lac. Number of users. So it was also a challenging part to perform the stress testing of the system. Also we have done the testing for the notification module by sending large number of emails and SMS on daily basis.
- The client also needed the N-tier project architecture to be implemented which was also the major constraint to implement it.

4. Business Benefits

- Centrally managed the single system with minimal maintenance costs.
- Expanded representative resolve, productivity, and engamanent of the user.
- Simple access, self-benefit work for the user.
- Developed alongside an online analytical processing (OLAP) instrument, which brought about an enhanced coordinated framework

5. Difficulties Before Requirements

- The user had to generate reports manually and make entries using excel sheets.
- Time consuming and lack of flexibility was providing less productivity.

6. Timeline With Man Hours

- Month : 6
- Hours : 5000 +

7. Tool And Technologies

- Third Party Application
 - SendGrid, Twilio, ITextsharp, SpreadsheetLight
- Front End
 - Bootstrap, CSS, HTML, JQuery
- Technology
 - .Net MVC, C#
- Operating System

-Windows, Apple

-Database

-MySql

-Browser

-Mozilla, Chrome, IE, Safari