

The Design of the Securities Enterprise Customer Relationship Management System

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ABSTRACT: The securities market information construction is an important part of information construction, speed up product innovation, improving customer service levels. It can ensure the company in an impregnable position in the fierce competition, securities company customer relationship management system based on software engineering S/B architecture, can be divided into the customer management, sales management, call center, customer service and other functional modules.

KEYWORD: securities market; B/S architecture; Customer relationship management (CRM)

1 INTRODUCTION

The improvement of the securities industry customer relationship management (CRM) can improve the management of customer relationship management, It can strengthen security technology innovation, improve the aspects such as disaster system, break the traditional way of face-to-face communication, the information communication, interpersonal harmony, the implementation of precision marketing, can promote the interactive function at the same time, strengthen the enterprise communication with customers, clients and customers, through the depth of communication channels, improve the enterprise brand awareness and loyalty. To a securities firm and its client group as an object, using the method of comparative study, quantitative analysis, design a system, to strengthen customer interaction, product promotion and other means, to improve service, promote customer transactions, securities company brand and enhance enterprise competitiveness.

2 CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM DEVELOPMENT

Stock market's Informationization is an important component of China's Informationization construction, securities firms, stock exchanges and other relevant bodies must make use of a variety of new technical methods to improve the level of corporate governance, accelerate product innovation and improve customer service levels, thus ensuring

the company in an invincible position in the fierce competition. This paper analyzes the stock market situation and existing problems of customer relationship management system, and puts forward solutions to these problems and design programs. Securities industry management systems can improve customer relationship management, to enhance safety and technological innovation, improve disaster recovery systems and other aspects, promote further improvement of customer relationship management in the securities industry.

Break of the traditional way of face to face communication, integrated information communication, interpersonal, and implementation of precision marketing, as well as enhance the interactive features, enhance communication with clients, customers, and their clients, through the communication channels, increase brand awareness and loyalty. How to change securities companies at the same time, effectively rely on models to enhance the competitiveness, would be a bold and groundbreaking innovative design. This will be a stock company and its customer base as object, using methods of comparative analysis, quantitative analysis, and design a system to enhance customer engagement, product launches and other means, to improve services, facilitating client transactions, securities company's brand, and enhance the competitiveness of enterprises.

This article is based on software engineering B / S structure to achieve primarily, including customer management, sales management, customer service, care surveys, service support, contract orders,

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product management, exchange of experiences, backstage management modules. Where customer service module based on customer transaction data in the database, and can automatically generate the level of groups, including recommended products, securities company employees to provide products recommended window, according to the investment preferences and risk level, the promotion of related products to customers, through remote desktop and other forms to customers about product features. Log management can achieve and maintain personal information management status and album management and personal display related functions. Modules for the exchange of experience at all levels of management capabilities to provide users with friends, customers can CRUD and set permissions; customer interaction functions to achieve chat communication, display and other operations. Mention the backstage management system, including functional management, role management, menu management, user management. The system uses the Unified Modeling Language analysis and design, and the use of the popular WEB technology development, the use of cross-platform development language Java, software developers can easily intervene to support dynamic download and upgrade applications, J2EE provides HTTP, TCP and other Internet protocols, which allows direct access to all the phone securities trading, existing information security consulting and providing online stock trading information, and to test the safety and stability.

CRM can provide services to users and internal users of the system, mainly used to provide the customer information, business analysis, financial analysis, position analysis, etc. CRM system USES a trade request with a combination of active service work of the system. It provides a large number of relevant interface and service, it supplement each other and middle application service platform, to provide request response to peripheral system, or a service for peripheral systems provide active data service. Not only in technology, products, services and market competition, more important is competition on the management concept, management thought. All securities companies are accompanied by the development of informatization, change their business ideas and management thinking. By focusing on "money" to focus on "customer". How to better attract customers to provide a convenient and personalized service has become one of the main means of securities firms to expand market share. A to interact with customers, deep communication and allows users to communicate with each other and promote product platform. Securities companies competition, management mode and the transformation of the management idea, the development of information technology makes the arises at the historic moment, contributed to the development of customer relationship system and design subject, effective

securities companies, investors through the system application market will become a new highlight market and the trend of development.

3 THE TECHNICAL BASIS OF CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM DEVELOPMENT

With the development of information technology and the construction of information is accelerated, the study of customer information system is becoming more and more important, many scholars and research institutions will be attention to this field. Customer information system has evolved into an independent, emerging discipline, has accumulated profound theoretical basis, in the customer information system technology research has made some progress. The theory and technology for our study of the securities industry customer information system development can provide a certain basis, this chapter selected some representative theories and technologies is discussed. System during the process of development, the main use Java language construct a based on B/S structure, using SSH three layers framework to build applications follow the MVC pattern. Based on Internet/Intranet/Extranet platform three layer application software system, the system directly through the Internet browser is used, the client does not need to install other software. System has a good scalability, using software componentization technology, three layer architecture. Customer relationship management (CRM) system is a kind of aims to improve the relationship between businesses and their customers new operating mechanism, and its application in the enterprise marketing, sales, service and technical support, financial and other departments related to the customer. Customers can purchase products and services is users of CRM, suppliers, service providers, the channel agents and cooperative enterprise, needs the basis of the information technology such as J2EE to.

4 THE SYSTEM REQUIREMENTS ANALYSIS

Development of customer relationship management system is based on customer as the center of management system, the main implementation between business and customer relationship management (CRM) platform, system has its own characteristics, to set up their own database. In order to complete the design and implementation of customer relationship management system of securities companies, securities companies, the need of analyzing CRM system from the function of the analysis and design method for details and implement customer satisfaction system. Demand analysis is the foundation of realization of system development, and is also an important, difficult and key process, its main task is to determine what needs

to be done, this is specific to the target system, complete, clear and accurate requirements, and through the understanding, discussion and investigation, clear the basic function of the target system needs. Demand analysis is geared to the needs of users, and the user communication, understanding the function of the user on the target system, design, and the behavior and performance requirements, through the problems and the running environment, system function and behavior based die, subdivide the user needs to form requirements specification description, for the subsequent software design, implementation, and testing, maintenance until the system lays the foundation, between it systems analysis and the software design phase. Requirements analysis process can help you to correct understanding of system function, and early detection system problems or errors, to avoid a lot of investment in manpower and resources in the later maintenance system, in order to improve the system efficiency, reduce costs, improve the quality of software. System requirements analysis, need to consider nonfunctional requirements, including performance, reliability, maintainability, scalability and adaptability, etc.

4.1 *The analysis of system functional requirements*

CRM is a set of integrated customer management based on network application solutions, for the enterprise the whole pre-sale, sale, after-sale customer service chain to provide efficient and smooth work platform. Improve overall network enterprises informatization level, and use the system tools to promote enterprise development and rapid response to market changes. A unified customer file information resource database; Establish a pre-sale, sale, after-sales service department unified platform for the integration of customer management; Implementation is straightforward, simple and easy to use, powerful, secure and reliable software application system; Implement customer access hierarchical, reached record levels of security control system, ensure the safety of customer resources; Based on network across the region, high efficiency, stable network application system; Establish a standardized customer data warehouse to support data import and function extension of the original system; According to the securities of the company's business activities, as well as the understanding of customer relationship management theory knowledge, and the realization of the securities business, through communication, investigation and understanding to the demand of the securities company customer relationship management (CRM) system design needs.

4.2 *The analysis of system non-functional requirements*

After the completion of the system function

requirement analysis, system still needs to be non-functional requirements analysis, because the software system should not only meet the functional requirements of system, also need to satisfy the developed system can run in the physical environment, to ensure that users can use the system. Software system for the main products of non-functional requirements including the system of performance, reliability, availability, usability, maintainability, portability and adaptive technology and business. System requirements analysis is the beginning of the software life cycle, is one of the most important link in the process of software development. Need detailed describes the system requirements, including the system user roles and division of labor and system functional requirements, non-functional requirements analysis.

5 THE SYSTEM OVERALL DESIGN

Through the demand analysis, realize the function of the system needs to be done after, will need to design, in a more abstract way to determine how to complete the demand of the function of the system task. Therefore, in the overall design, detailing the physical configuration of the system implementation, and system function module, system module, the structure, composition function of each program.

5.1 *System overall design*

Phase of the important tasks is to use more abstract way is how to determine the system accomplish the function, therefore, the overall design stage there are two main stages, the first is system design, starting from the data flow graph design to complete system function of several physical implementation of a reasonable plan, and then the software structure design, system function module, mainly determines the modules of the system and how to realize the relationship between the dynamic invocation, under these modules and function modular system is introduced in this paper. [1]

5.2 *Database design*

Software is the essence of operating program by calling the database, the database system to store huge amounts of information. In order to organize and store data, and effectively acquire and maintain data in the database, you need a database management system (DBMS). When the reference in the computer database, database management system, computer systems are transformed into database system. It is conceivable that this development system is a database system. Database design involves many steps in the process, in the context of different design needs to use different data model, through the data model of database design. Data model is refers to the real world data is

an abstract, that is, data model, describe the data, sorting data, realize to the operation of the data. Generally fall into three categories: concept, logic and physics models, mainly expounds the logical structure of the system, system module design, module independent conditions, system function structure, database design, e-r diagram of the system. [2]

6 CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM DETAILED DESIGN

Defined system requirements analysis, data flow diagrams, database table design and function module design, detailed design described in the system, including the number of functional modules described process.

6.1 *The customer information management subsystem*

Customer information processing module, customer relationship management is necessary it is open, the company's internal links to update the customer information, customer information management, strengthen the contact with the customer, improve customer's contribution to the profit potential. Subsystem's main function is to realize and handle customer information, customer information, including customer information, contact information, management, customer feedback management module.

6.2 *The basic customer information management*

When the user login to the system ACTS as the agent, you can build relationships is through their own customer information update, delete, and query operations. Here, the agent can only see their relevant customer information and modify, edit, this is to ensure the privacy and the security of customer information between different agents. If the system administrator privileges the user login system, users can view all customer information. This section provides a detailed information to customers, design and implementation of the add new customers.

After the detailed design for code design, development of the system is put into use, the software test is the last link, is also the most of a component. It can ensure the quality of the software to use the only test to enter the market. Software testing is the testing of software development, including functional and non-functional testing to try again. Its purpose is to test whether the software meets the requirements, performance is stable, and whether it can meet the expected requirement. It is used by some test cases found that the software is correct, whether to approve the quality. [3]

7 CONCLUSION

The securities company customer relationship management (CRM) system design conforms to the demand of the securities company, using the latest building a CRM system for the development of J2EE architecture, and in the CRM system to carry on the design and implementation. System design USES the modular design is more easy to understand, easier to implement, has paved the way for the enterprise customer relationship management and upgrade. Implemented a customer relationship management information system based on J2EE architecture, using the software engineering ideas to complete the system from requirement analysis to design, detailed design, coding, and testing of the entire process, further deepen a series of process and design the system. Customer relationship management system of project development, the use of the separation of application and the database deployment scenario, the application and system deployment in not on the same server, through the database configuration link, system and database interaction, through this program, allowing the user to set access to reduce the pressure of the server. In system design, design a number of analysis, summary and computing function, need to focus on the design by analysis module, used for advanced analysis of the customer relationship management (CRM), require the use of XML and the XBRL technology, electronic data interchange system need to work with other systems content exchange and sharing of data, through the design with XML and XBRL as a data interchange format, complete business system data exchange.

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