



Research of key techniques in the development of teaching simulation system for E-commerce

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ABSTRACT

With the rising popularity of the Internet, e-commerce will become the dominant way to trade in the 21st century. E-commerce professional talents cultivation must be combined with the development of e-commerce practice should be equipped with the appropriate teaching experiment of network environment and is suitable for the electronic commerce teaching, experiment simulation system. For the needs of the electronic commerce teaching and experiment, this paper designed a simulation teaching system of electronic commerce, allowing students to fully understand the whole business process of electronic commerce, to master the basic principles of e-commerce business, improving the ability of the application of electronic commerce technology.

Keywords: Regression model; Pulverized coal; Ignition temperature; Prediction.

INTRODUCTION

With the rapid popularization of computer technology and network technology, electronic commerce has fundamentally changed the traditional mode of business activities and, as a new source to promote the development of national economy. Current society of electronic commerce specialized talented person's demand growing, also in unceasing enhancement, to the requirement of talent cultivation for colleges and universities put forward the task of cultivating professional talents of e-commerce. Now most college courses in the e-commerce, e-commerce as an emerging discipline, is in the construction and development [1-2]. E-commerce professional talents cultivation must be combined with the electronic commerce business practice, needs to have the corresponding teaching experimental environment and e-commerce simulation system for experiment teaching. In order to better e-commerce professional personnel training, urgent need to develop a set of strong practical electronic commerce teaching experiment simulation system.

This paper studied the electronic commerce teaching simulation system, the paper analyzes the current situation of China's e-commerce development, the characteristics of e-commerce professional talent training, the current research situation of the electronic commerce teaching experiment simulation system, and based on this, advances the electronic commerce teaching experiment simulation system research target, establishes the system overall design ideas and system architecture.

2. Requirements analysis of E-commerce teaching simulation system

E-commerce compared with the traditional business activities, has the obvious difference. Virtual flexible e-commerce transaction, transaction process and transaction costs low. Electronic commerce activities conducted through the Internet, have the online payment of electronic banking, online identity authentication center and goods distribution logistics center and other roles. To sum up, the electronic commerce system is e-commerce as the core of the online trading system, composed of business activities of the participants, including supplier, purchaser, demonstration center and payment, etc. [3], as shown in figure 1.

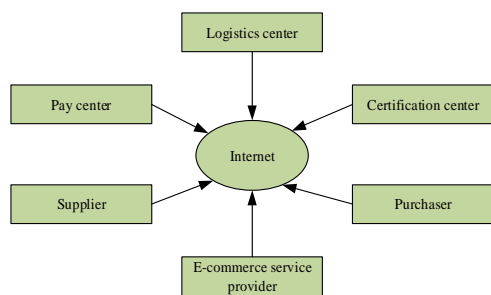


Fig. 1 The basic component of E-commerce

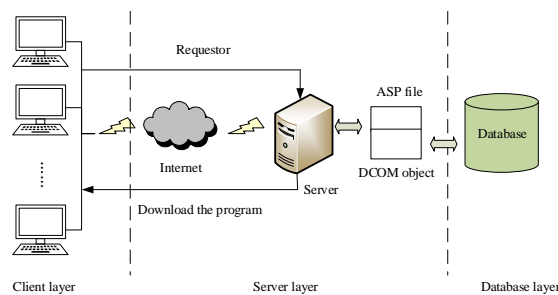


Fig. 2 Structure of E-commerce teaching simulation system

E-commerce in teaching the application of simulation teaching system, students through the simulation operation of different roles, can experience a complete e-commerce process and operation mode, to deepen the understanding and the understanding of e-commerce [4]. But from the current colleges use e-commerce simulation teaching system, found that the system used in the schools there are some problems, have been unable to meet the needs of the current e-commerce professional practice teaching. In order to complete the above goals, simplify the system control, improve the efficiency of experiments. E-commerce simulation system function is divided into two parts: the front desk of the simulation experiment and the background of the system management part. Simulation experiment design closely around the true, the actual operation process of e-commerce, the background of data management to ensure the normal operation of the experiment. Simulation experiment teaching system main function is to provide students with a simulated the whole process of e-commerce transactions through information networks environment; Background data management function simulation experiment to the electronic commerce involves the participation of the character data, product code, class, the test information, enterprise information coding data and manage administrator account [5].

Student management role. It is the student role in experimental data management.

Enterprise data management. It mainly is to establish a cooperative relationship between enterprises, such as the relationship between production and logistics enterprises, logistics companies and commercial enterprises [6]. In the enterprise, the establishment of cooperative relations is the guarantee of the normal conduct of simulation practice.

Product data management. It is responsible for the maintenance of product categories and product data. Provide all kinds of data required by the system, such as transportation data, product category data, company category data, etc.

Landing role management. Including students, teachers and administrators, three roles of different operation interface and operation permissions.

3. Structure of E-commerce teaching simulation system

The system architecture is the three-tier B/S (browser/server) structure shown in figure 2. The first layer is a customer, this layer is responsible for the HTTP requests from a web server, and then accept the returned a browser can display HTML pages. The second layer is the server layer, the layer between the client and the database layer, is often referred to as the middle tier. Client through certain transmission protocol, communicate with the server layer. The third is the database layer, the actual data is stored in this layer. The communication between the server layer and data layer to use specific database access API [7].

On the implementation, the whole system is divided into client software, server system programs and background database. Client software to simulate the experiment simulated users with operating system interface, is the soul of the whole system, mainly including the client operating system, Windows and Internet explorer browser. System program on the server in the background in response to the client through application, the realization of the management control of the whole simulation process, is the core of the whole system, divided into a Web page, ASP files, control files. Background database is SQL server database, responsible for data management and sharing, is the bridge of program and data interaction in the system. That the three interact with each other closely, form a complete system architecture.

4. Key technology of the E-commerce teaching simulation system

B/S architecture design. Browser/Server mode is an improvement on the Client/Server architecture. Under B/S architecture, the operation of the system interface through a Web browser, a small number of transaction processing in the system at the front desk, main transaction processing on the server side implementation, which greatly

simplifies the client computer load, reduce the cost of system maintenance [8]. From the point of view of technology, with the aid of LAN based B/S system structure of network application, has low technical difficulty, relatively easy to implement and can realize unlimited time, place, multiple access methods to access the system resource, etc. B/S architecture is, in fact, a kind of three layer structure model of C/S system structure, the original Client in C/S architecture by the browser, the Server comprised of Web Server, database Server, the structure model is shown in figure 3.

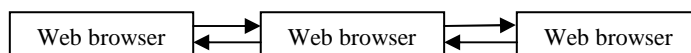


Fig. 3 B/S architecture mode

Web database access technology. Based on the design of the database of Web application user's Internet explorer as the container of application interface, system information and data collection and processing of all in the same database server, IE browser to connect through a Web server and database server. ASP technology is simple to just a few lines of the statement, you can put the background database information to a web page, makes it easier to develop web applications. In the process of ASP program execution, through the built-in database access components ADO object to achieve data access to the database. ADO object is currently in the database operation is the most simple, efficient access method, is to write simple, small occupancy resources, running speed, etc. The working process of the ASP is shown in figure 4.

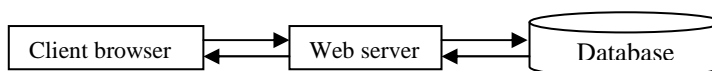


Fig.4 The working process of the ASP

5. Development of E-commerce teaching simulation system

The purpose of the electronic commerce teaching simulation system is to through the use of electronic commerce teaching experiment simulation system by students to deepen understanding of the electronic commerce basic theoretical knowledge, mastering the development trend of electronic commerce, can let the students found in practice teaching, business needs and come up with an idea for business, and to find the measures to solve the problem and solution. The design of simulation teaching system in electronic commerce, B2C and B2B experiment module is the core of the system, the simulation of the bank on the net, the CA certification center and logistics center is the foundation of the system, online stores, manufacturers and consumers is the bridge and the link system, the relationship between the parties and the system overall process as shown in figure 5.

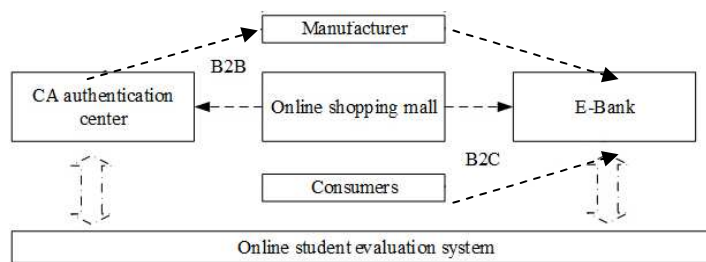


Fig. 5 Flow chart of the overall teaching simulation system

According to E-commerce experiment teaching purpose, the e-business experiment content is divided into three levels, namely basic level experiment, improve the level of experiment, comprehensive design experiment. Through the experiment of simulation training, can make the students to know and understand the theoretical knowledge of book, have the effect of digesting the classroom knowledge, but also in the process of concrete practice to deepen and understand all aspects of electronic commerce and the concrete implementation process. Based on the above analysis, the electronic commerce teaching experiment simulation system is integrated the function of teaching, experiment teaching software, its main features include: shopping online B2C system, the company sales B2B system, online trading market, the bank on the net, CA authentication center, student assessment test system, and other functions, its overall function module structure as shown in figure 6.

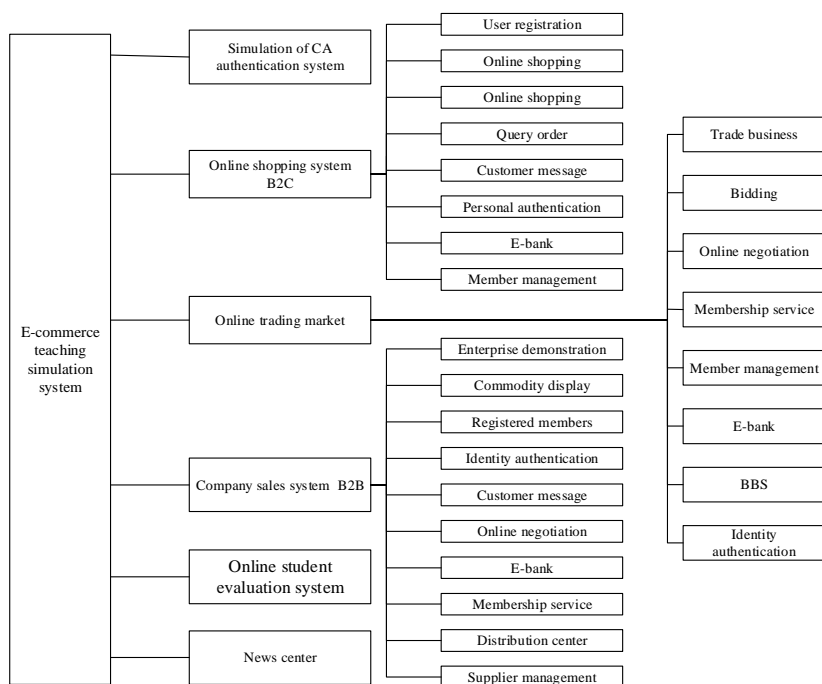


Fig. 6 Design of E-commerce teaching simulation system

CONCLUSION

E-commerce simulation teaching system has diversity, openness, systematic, practical and innovative characteristics, this paper designed and developed a set of e-commerce simulation teaching system closely integrated to electronic commerce development present situation, theoretical teaching and experimental progress content matching, applied to the school teaching. With the aid of this simulation system, one party and enables students to learn to master the basic knowledge of electronic commerce and electronic commerce trade activities the whole process of system knowledge, on the other hand to training students' various skills, strengthen students' practical operation ability. As a result, the system will be a new application field of network teaching, adapted to open education teaching of electronic commerce and the needs of the student internship, being easy to use, fully functional, providing teachers and students a complete, practical and open teaching simulation experiment network platform.

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