Information Technology and Its Application in Accounting Simulation Experiments

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Abstract. With the rapid development of computer and communication technology, information technology has become more and more widely used in various fields such as industrial and agricultural production and social life. Information technology contains many aspects, and computer multimedia technology is an important part of information technology. Multimedia information technology mainly includes audio technology, video technology, data compression technology and virtual reality technology. In the information age, the development trend of networked and integrated computer multimedia technology can provide interactive platform and technical support for accounting simulation experiments, and plays an important role in the process of accounting course simulation practice teaching. ERP system is a platform system developed by modern information technology based on relevant management concepts. Financial management is an important part of the system. The system is used to design accounting simulation experiment courses and experience the actual experience of accounting related business. Drilling can provide experience accumulation. It can be customized to develop a software system that matches the teaching curriculum of the school. Based on this, accounting simulation experiments are carried out. In the end, the purpose of improving the experimental results and efficiency is achieved. This paper mainly studies the development of accounting simulation experiment system based on J2EE technology.

1. Introduction

The rapid development of science and technology has enabled society to enter the information age, and computer multimedia technology has gradually penetrated into all aspects of society. Computer multimedia technology is an important content of information technology. This technology has been widely used. At the same time, with the rapid development of computer and electronic technology, it has been constantly updated. Computer multimedia technology combined with college teaching practice has gradually become an auxiliary teaching.

Under normal circumstances, only a small number of students in colleges and universities have the opportunity to go to the company for internships. Most students do not have the opportunity to actually contact large-scale training. This makes it difficult for students in accounting majors to experience the actual working environment of enterprises. Based on information technology, more enterprise financial management software systems have been developed. In order to provide students with practical training, some colleges and universities conduct accounting simulation experiment design on these software systems, so as to achieve the combination of theoretical learning and practical exercises. On the one hand, the university accounting training platform can solve the key technology of the training project; on the other hand, it can provide reference for the whole accounting software design and become one of the important directions of financial software design development.

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2. Computer Multimedia Technology and Accounting Simulation Experiment

2.1. Computer multimedia technology

Computer multimedia technology is mainly for the processing technology of video, image, sound, data and other information.

Audio technology. Audio technology mainly includes: speech processing, speech synthesis, speech digitization and audio recognition. For the convenience of data usage, intelligent speech recognition has become the main development direction in recent years.

Video technology mainly includes video digitization technology and video coding technology. Video digitization technology converts video signals into digital signals to facilitate the processing and display of video signals by computers.

Data compression technology. There are more data compression methods, which can be divided into two categories in essence: fully reversible redundancy compression and irreversible lossy compression. Redundancy compression is only a few times the compression ratio. It is often used in data communication, disk files, and meteorological satellite cloud maps. In these cases, compression loss is not allowed, and this compression technology is difficult to meet the requirements of digital audio-visual applications. In digital audio-visual equipment, lossy compression techniques are often used to achieve higher compression ratios.

virtual reality technology. Virtual reality technology is a computer simulation system that can create and experience virtual worlds.

2.2. Accounting Simulation Experiment Based on Multimedia Technology

In the accounting simulation experiment based on multimedia technology, it mainly combines multimedia CAI courseware with computer internet technology to conduct networked teaching. The teaching content is cross-cutting and selective, and its expressiveness and appeal are strong, which can stimulate students' enthusiasm for learning. In the multimedia networked accounting simulation experiment, it is possible to realize the sharing of teaching resources and conduct open and distance practical teaching.

When colleges and universities conduct multimedia network accounting simulation experiments, they must first develop accounting software with advanced and practicality, and develop CAI simulation experiment software suitable for multimedia networking. Using multimedia technology, the performance of the simulation experiment teaching accounting business within the single account table and other information, as well as the bill and its operating environment, business operations tools, the actual application of multi-level business content should be reflected as much as possible. From the perspective of self-study, the accounting software provides multi-level business content settings, from shallow to deep, to ensure that participants can select the appropriate accounting simulation experiment content according to their actual level.

3. Accounting Simulation Based on ERP Technology Software

The design of accounting simulation experiment needs to start from the needs of market enterprises, and focus on cultivating students' comprehensive ability. The simulation experiment content is planned and designed to realize the integration of accounting simulation experiment and information technology. Based on the ERP software system platform, the design of accounting simulation experiment content should start from the aspects of tax declaration, sand table simulation and ERP training.

The functional modules involved in the sales and collection business processing mainly include sales management, inventory management, receivables system, inventory accounting, and general ledger system. The business types mainly include sales and delivery business, collection business, sales invoicing business, and sales return business. If the invoicing direct delivery mode is adopted, the accounting simulation processing flow of the sales and collection business is as shown in Fig.1.

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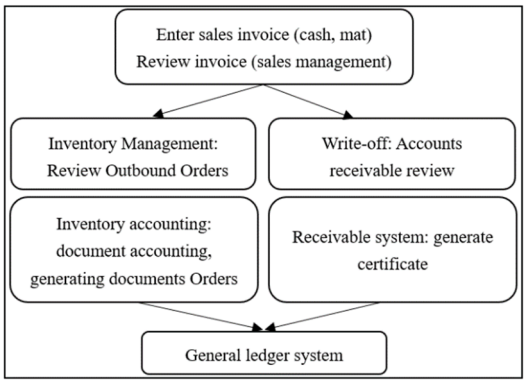

Fig.1 Accounting simulation process for sales and collections.

The functional modules involved in the procurement and payment business processing mainly include procurement management, inventory management, coping system, inventory accounting, and general ledger system. The procurement and payment business accounting simulation process are shown in Fig.2 below.

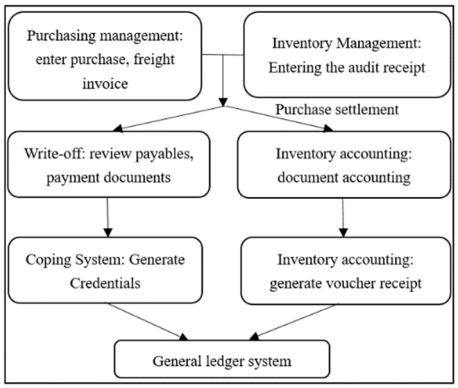

Fig.2 Procurement and payment business accounting simulation process

4. Accounting Simulation Experiment Design Based on J2EE Technology

Considering the J2EE hierarchy and component loading advantages, when designing and developing the accounting simulation experiment platform, the training platform model adopts a three-tier application framework, and loads different functional application components in different levels of J2EE framework environment.

In the mainstream accounting training software, because it is mainly for enterprise application development, less accounting training is started from the original voucher; in the accounting simulation experiment, this link is indispensable.

Taking the report simulation experiment as an example, the subsystems such as the system training and accounting system have perfect interfaces for processing the report transaction in the accounting simulation experiment platform system, and completing the common accounting statements, data processing, report management and report output. Reports can be customized or use existing templates. The use of templates is relatively simple. Custom reports are relatively complex. They need to be defined and tested multiple times, and finally get satisfactory results. The accounting report simulation process based on J2EE system design is shown in Fig.3.

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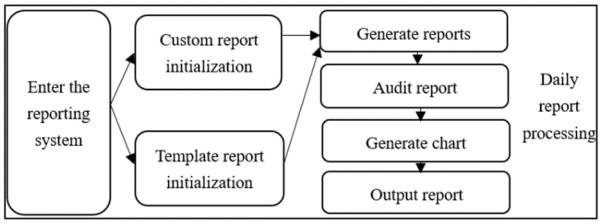

Fig.3 Accounting report simulation process based on J2EE system design

5. Conclusion

The use of multimedia technology and network technology to achieve accounting simulation experiments can effectively solve the problem of accounting students' internship difficulties, realize the communication and communication of the accounting simulation experiment process in a large scope, realize information sharing, and effectively improve the quality of accounting simulation experiment teaching. By implementing ERP, enterprises can improve their management level and competitiveness. In the accounting simulation experiment platform of colleges and universities, all aspects of the accounting work of the enterprise are included, and the functional modules cooperate with each other to finally realize the accounting training outside the school. It is of great practical significance for the accounting major students to realize the enterprise training and improve the students' practical ability.

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