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Development of an Electronic Platform for Vocational Skills Training Based on Collective Data Sharing Technology

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Abstract:In this paper, data dimensionality reduction and feature extraction are carried out based on the discrete set data, and the set data sharing algorithm and simulation examples are proposed on the decentralized cloud sharing platform. Maslow's Hierarchy of Needs Theory, Constructivist Learning Theory, etc. School-enterprise cooperation to build a "school-in-a-plant", building a multi-functional on-campus training base integrating "integrated teaching, productive practice, product research and development, skills training and appraisal, and technical services"; to improve the overall level of professional development and service capabilities.

Keywords: Electronic Platform, Electronic Platform, Vocational Skills Training, Collective Data Sharing Technology

1. INTRODUCTION

Vocational ability is the ability of students to complete certain occupational tasks by generalizing, transferring and integrating the knowledge, skills and attitudes they have learned in specific occupational activities or situations [1]. Experimental training teaching in higher vocational colleges should cultivate students' practical ability and innovation ability, so that students have strong professional ability. Laboratory management is a very complicated thing, because it needs to manage experimental equipment, laboratories, staff, and managers, and there is a lot of information [2].

When there is no computer, we completely rely on manual management. The whole process is very cumbersome and the proportion of netizens who use mobile phones to pay online has increased from 50.3% at the end of 2016 to 65.5%. In the March 2015 government work report, the "Internet + ¨" action plan was put forward for the first time [3], and the top-level design of "Internet +" was introduced to provide a development direction for the integration of the Internet and traditional industries, and to accelerate the cultivation of new economic power through e-commerce. The trinity of teaching, learning and doing; promoting teaching with competitions, promoting learning with competitions, and actively organizing students to participate in various types of competitions inside and outside the school to improve students' professional skills.[4]

Improve teachers' professional ability through competitions, stimulate students' enthusiasm for innovative learning, and form a good learning atmosphere; establish a professional ability assessment system. It is necessary to build a mature, advanced, safe, reliable, easy-to-expand [5], and manageable medical instrument skills experiment integrating teaching and research platform. Taking Jilin University of Medicine as an example, this paper discusses the problems related to the construction of the experimental platform for medical instrument skills. Zhang et al. [6] added a privacy protection module to Hadoop and named the mode as Sedic. This model realizes privacy-aware hybrid cloud computing. Oktay et al. [10] proposed a framework for computing task allocation based on the optimization algorithm. Using modeling ideas, quantifying privacy leakage, cloud cost and computational complexity as parameters [7].

Private data refers to secret information that you do not want to be known by others, including personal secret information such as credit card numbers, personal health records and chat records, as well as company employees' salaries, company important documents and other organizational secret information [8].

The previous Internet applications and IoT systems adopted a centralized chimney architecture, that is, each manufacturer established an independent information system for its own services, and all data was stored in the manufacturer's server [9]. As a result, manufacturers can use huge user data to obtain commercial benefits, but users cannot benefit from the data generated by themselves. The comprehensive quality ability of modern higher vocational students includes vocational and technical ability, innovative thinking ability [10], information processing ability, analysis and solution ability problem-solving skills, career development skills, etc. To meet this need. As a teacher, we must establish a new teaching concept. That is to say, it is necessary to shift from pure subject education to scientific education. Laboratory management has been mostly realized by electronic management. [11]

After going through the era of stand-alone management and gradually transitioning to the era of networked management, the preparatory work before the experiment (including: laboratory application. Excessive pursuit of high employment rate, ignoring the inherent needs of students for comprehensive and sustainable development [12]. This superficial Understanding not only narrows the connotation of secondary vocational education and ignores the development requirements of some students to continue their studies in school, but also is quite unfavorable for students' work development after employment, even if students are employed soon [13]. Improve the assessment based on the completion of the usual project and the learning process Based on the assessment and evaluation system, a comprehensive professional assessment system and evaluation mechanism that meet the requirements of vocational ability training are

formed, and a combination of theoretical assessment and practical assessment is adopted [14].

Undergraduate graduation design, development of small diagnostic instruments, medical biological signal acquisition and other experimental projects. However, the laboratory area of the school's experimental platform is only 100 square meters [15], which causes a lot of inconvenience to the preparation of the experiment, the rate of test, the effect of the experiment, the after-school tutoring of students and the management and maintenance of various experimental equipment. It can protect the privacy and security of users against the untrustworthy problem of a single cloud platform. At the same time, for the problem that user privacy may be exposed during the association process, the scheme adopts a hypergraph model for formal processing. The solution uses the optimal solution process to obtain the optimal solution for data distribution, and ensures that user privacy is not leaked [16].

2. THE PROPOSED METHODOLOGY

2.1 The Collective Data Sharing Technology

The CP-ABE algorithm is considered to be the most feasible solution for data privacy protection on cloud platforms. In the scheme, the data access control is protected by an attribute access control tree. When the user's attribute meets the requirements of the control tree, the user can use the attribute private key to decrypt the ciphertext to obtain the plaintext data. Data owners can authorize keyword retrieval rights to other data users by setting fine-grained access control policies, and users can control access control.

OTP integrates a set of very detailed access control scheme, the data is completely controlled by the user, the user can authorize different proxy nodes to access their different data; those authorized data users who meet the access control can perform keyword retrieval; (3) No interaction is required between the data owner and the data user. In addition, complex operations such as keyword retrieval and re-encryption operations can be outsourced to cloud service providers while protecting data privacy. We use proxy.network as data distribution network,

As a bridge between the data sender and receiver, it handles complex network functions, simplifies the logic of the client, and makes data transmission easier and lighter, which is of great significance to IoT devices. The medical industry has always been a huge industry in the world, and the amount of data generated every day is also huge. At the same time, many medical testing equipment will generate massive video or audio data, and how to control the massive data is a question worthy of discussion. In the cloud platform environment, the object of the set operation is the ciphertext data set that is outsourced and stored in the cloud, which can be regarded as a variant of the traditional Private Set Intersection (PSI) problem. In traditional PSI, two parties jointly calculate the intersection of their data sets based on the plaintext sets they hold.

2.2 The Vocational Skills Development

Innovative education refers to the practice of pedagogy. Attaches great importance to knowledge-based ability development. It is one of the fundamental differences between traditional education and modern education whether to pay attention to the teaching of methods and the ability to innovate.) Laboratory information management automation: It is required to realize the automation of information management such as the floor distribution of the laboratory, relevant administrator information, laboratory equipment configuration, laboratory use status, and laboratory opening after class. In the design process of "selective" curriculum reform, there are many choices, among which the choice of majors and directions, the choice of further studies and employment, the choice of course project modules, and the choice of long and short schooling systems are the starting points.

"Experience first, then choose" is an important measure for various secondary vocational schools in Zhejiang Province to carry out selective curriculum reform. The implementation of the "dual certificate" system, according to the needs of enterprises, but also to improve students' employment competitiveness, the modern education concept Under the electronic professional experimental training teaching. According to the outline requirements. On the premise of ensuring that students master basic knowledge and basic skills.

Strive to find the combination of creative thinking and boldly carry out creative teaching. Students are required to obtain professional relevant vocational skills certificates (currently radio commissioning engineer certificates) before graduation, that is, the implementation of the "double certificate" graduation system; students graduate At the same time, he also obtained the certificate of radio commissioning engineer at the same time as the college degree certificate of this major. Automation of information management related to skill assessment: The automation of information management for all relevant skills assessments of various majors, including vocational qualification certificate examination projects, including the provision of all nationally recognized skill certificate information. At the same time, students are required to study various professional courses, such as Professional literacy and e-commerce, etc., give students a preliminary understanding, so as to deepen their understanding of various aspects, such as learning content, work nature and work environment.

2.3 The Research and Development of Electronic Platform for Vocational Skills Training

Innovate teaching methods and means, and flexibly adopt teaching methods according to the different characteristics of the courses. For example, courses such as single-chip application technology adopt project-based teaching methods and make full use of modern information technology. Authentic work atmosphere. Laboratory real-time supervision function: The training center can supervise the actual situation of each laboratory in real time through the camera; the laboratory administrator can supervise the actual situation of the laboratory under its jurisdiction in real time through the camera. Through the study of the core course modules of e-commerce major, students have a comprehensive understanding of the basic knowledge of e-commerce and related job requirements.

In this semester, students need to combine professional characteristics: the algorithm is executed by a trusted authority to generate the master private key m7 and public parameters pp. The main responsibility of the trusted authority is to manage users (including data owners and users) and distribution key. For the convenience of presentation, it is assumed that the following algorithms all implicitly input pp. Considering the job requirements of various departments of the micro-business entrepreneurship platform, starting from

personal interests and strengths, choose the professional field of your own will from the e-commerce major, such as: online sales, customer service, art, etc. This paper uses encryption and distributed storage systems to build a set of privacy transaction mechanisms on the public chain.

It mainly involves four entities, namely distributed storage system, public blockchain system, public node and privacy node. On the one hand, it is necessary to equip students with professional competence. The tutor is based on the professional cognition and employment skills of e-commerce students after participating in the job internship, mainly in the form of rotation in the micro-business entrepreneurship platform department, and pays attention to the professional quality and operational ability that students need to master in the field of e-commerce.

3. CONCLUSIONS

Combining the characteristics of deterministic encryption and attribute encryption, a deterministic attribute encryption is proposed, and a general construction scheme and a specific key strategy deterministic encryption scheme under the DBDH assumption are given respectively. Actively carry out social evaluation activities for the quality of talent training, and conduct a questionnaire survey on the evaluation subject consisting of employers, graduates' parents, and graduates. Through the questionnaires, problems are found and solved, and the quality of talent training is gradually improved. In addition, it also participates in quality evaluation jointly with research institutions.

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