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Design of University Employment Information System

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Abstract

There was a problem that it was very inefficient to deal with much employment work with heavy task. In order to collect, process, share and store a large amount of information of college graduates, recruitment markets, enterprises and public institutions, a database system of employment information was design for this problem. According the principle of demand analysis and database system design, the software modules are carried out in C# language of MS Visual Studio. The testing results show that employment data can be organized and stored regularly, reducing the force and trouble from university and graduates with less burden of employment information management.

Keywords: Information systems; employment; database system; design

1. Introduction

In recent years, the undergraduate number expands rapidly, and the college graduates in China reached 660 million in 2011. The employment situation has become even more and more severe. The employment rate affects the entrance recruitment directly, even involving in the education effectiveness and quality of university. One of the most important jobs of college employment department is to broaden position or career channels from diverse employers. Some literatures discuss college employment rate and ideas[1-3], while little information technology are utilized to manage the large amount of job data and graduates

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records in China, and much work has to be finished by hand with lots of troubles. Therefore, to improve the efficiency of employment work with less difficulty of data management, a university employment information system is developed to reduce the heavy burden of the staff in C# programming language of Visual Studio 2010. Before examining the detailed software modules, Section 2 describes the system requirements analysis. In Section 3 followed by the design of some relation schema of the database system, while Section 4 shows the results and discussion. Finally, in Section 5, an indication of some valuable conclusion from this project is given.

2. Requirement Analysis of University Employment Information

The main requirement of the university employment information system is to collect the job record from enterprises, public institutions, research institutions, recruitment markets, and it should be easy for every graduate to select the position or career everywhere on the Internet. The users include super administrator, common administrator, staff, employer, graduate, guest and other registered person.

The super administrator is most powerful, managing and maintaining the whole system. The common administrator is the second. Both of them can insert, delete, update and select the records of the uses of staff, employer, graduate, guest and others. Rights management and security are the main work with the data manipulation of creating, dropping and modifying relation schema. They also check diverse valid and invalid information from every user. The modules of this system are shown as Fig. 1.

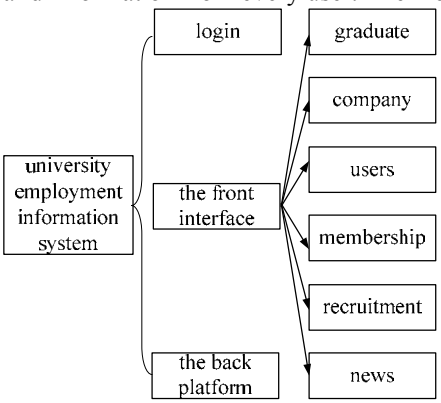

Fig. 1. System modules of university employment information system for demand analysis

3. Detailed Design of Employment Information Database System

The records of college graduates and position information of employers need storing in the relational table of database, therefore, the main work of detailed design of system is to create reasonable relation schema.

The table of graduate stores the information of the basic self-introduction, and the relation schema is graduate (graduateID, name, gender, national, political affiliation, birth date, native, college, major, department, class, professional, degree, graduation time, work experience, specialty, interest, health). The first attribute is primary key, and other attributes are not null.

The table of enterprise states the information of the basic introduction. The relation schema is company (companyID, company name, company address, company type, company phone). All the attributes are not null.

The table of user information describes the information of the basic data of users, and the relation schema is userinfor (userID, username, password), which are not null.

The table of membership includes the information of the data of registered members, and the relation schema is membership (memberID, username, password, address, email, sex, birthdate, telephone, birthplace). Every attributes are not null.

The table of recruitment shows the information of jobs that employers afford, and the relation schema is (recruitmentID, organization, employment, lawperson, website, address, number, phone, academy degree, workplace, salary, position, sex, email, description). The primary attributes are not null, while non-prime attributes can be null.

The table of news expresses the information of notice that administrator, employers or college employment department afford, and the relation schema is news (newsID, title, date, content, actor, editor, type, department, address, contact, email). These attributes are not null.

4. Results and Discussion

The employment information system is coded in C# programming language of Visual Studio 2010. After software testing, all the modules are carried out from requirement analysis. Some graph user interfaces are demonstrated as Fig2. and 3.

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name	gender	national	Political affiliation	Date of birth	native	departments	class	professional	degree	Graduation time
Zhang SAN	man	han	members	1990-12-12	henan	Software college	coding091	Software code	college	2010-6-6
yue	man	han	Party members	2001-12-1	Beijing	Guanhua college	management081	Enterprise management	Bachelor degree	2002-6-8
Li si	woman	miao	members	1988-10-12	henan	Software college	coding081	Software code	college	2009-6-10
China	man	han	Party members	1915-10-12	zhejiang	Software engineering	coding081	Software code	Bachelor degree	2002-6-8
Liu Bei	man	No group	Party members	1989-10-13	jiangsu	Software college	Japanese081	Japanese encoding	college	2002-6-8
Zhang fei	man	three	members	1978-1-10	Beijing	Software college	Japanese082	Japanese encoding	college	2009-6-10
Guan yu	man	three	Party members	1990-12-12	Shanghai	Software college	test081	Software testing	college	2002-6-8
Yangtze river	man	manchu	members	1988-12-12	shandong	Software college	test082	Software testing	college	2009-6-10

Fig. 2. One of graduate tables from the university employment information system

According to the software result, this system can realize the user to register and login in with six kinds of database object privilege of super-administrator, common administrator, graduate, employer and employment-staff, guest. All the graduates of this university can easily view diverse position information, and corporate recruiter can find the students what they want. Both of them can gain notices message after login. Employment department staff of this university can insert, update, delete and select employment information conveniently, filtering the illegal data from some websites and strengthening information management with the new records. They achieve the goal of managing the massive employment data comprehensively for all kinds of majors.

--Please sel screening

name	class	Work city	Company name	position	salary	Began working time	state	Whether to pass
Zhang SAN	coding091	Beijing	Microsoft	engineer	2000	2011-7-7	work	yes
Li si	coding081	Shanghai	IBM	Senior architect	10000	2010-7-7	work	yes
China	coding071	zhengzhou	Microsoft	programmers	1000	2008-7-7	work	yes
Liu Bei	coding061	guangzhou	kodak	programmers	2000	2007-7-7	work	yes
Guan yu	coding081	shenzhen	SONY	engineer	5000	2010-7-7	work	no
jechiliah	coding081	Shanghai	IBM	Senior architect	10000	2010-7-7	work	yes
HuGe	coding091	Beijing	Microsoft	engineer	2000	2011-7-7	work	yes
Jackie chan	coding071	zhengzhou	Microsoft	programmers	1000	2008-7-7	work	yes
jay	coding081	shenzhen	SONY	engineer	5000	2010-7-7	work	yes
Andy lau	coding071	zhengzhou	Microsoft	programmers	1000	2008-7-7	work	yes

Fig. 3. Employment records from the university employment information system

5. Conclusion

An employment information system is developed by the actual work, providing great convenience to teachers, graduates and employers. The system can store information from student resume, talent market, public institution and enterprises, etc. It has some advantages of simple operation, comprehensive information and new records in time, overcoming the shortage of single function of existing systems. Teachers can collect and integrate the employment information resource from the Internet, recognizing and filtering illegal position data, as improves the belief degree for all users. Graduates are positive to utilize the employment information available from the database with great enthusiasm. It help the whole graduates understand the employment market data, especially the supply-demand relation, leading them to stagger the employment peak with electronic resumes of low costs, reducing the violation rate of signing employment agreement with less trouble. The end-users can also provide the position information promptly, enrolling the satisfied graduates and strengthening the cooperation between university and employers. The proceeding work will make the data analysis for the rule and contradiction between the employment demand and the specialized training plan.

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