

Design and Implementation of Supermarket Personnel Management System Based On Java

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Abstract. In order to improve the efficiency of the supermarket personnel management work, the text designs a supermarket personnel management system. The function of this system includes employee entry, staff mobility, personnel management and so on. The system uses the Java programming language, object-oriented interface design ideas for the section, and the layered architecture of the Struts2 framework and MVC pattern.

1. Introduction

Using the paper material as information management is a traditional way that various enterprises such as supermarkets often apply it to personnel management, but as the development of economic globalization, it is hard to meet the requirements of supermarkets' personnel management. The combination of the supermarket personnel management system and the modern Internet techniques can realize the informatization and modernization of supermarket's personnel management.

It can apply the technologies such as electronic and network to establish the informational personnel management of supermarket, in order to achieve the characters as large memory, high security, long service time, fast search and low cost. These advantages have benefits to reduce the company's cost of supervising staff and the burden of managers, they also make employee information convenient to update, maintain and query, increasing the reliability of the data.

2. Requirement Analyses

2.1 Function requirement

Supermarket personnel management system is used for the staff and personnel department of supermarket; it might realize the operations such as query, modification, and deletion and enter employee information. It also allows general staff to evaluate their department manager anonymously, and the administrator to release information of cultivating in this system.

The modular structure chart of system function as follow:

2.2 Performance requirement

(1) Real-time: the staff can see the latest personnel information and assessing information from others to oneself, and the training information, department information which are published by enterprise in real time.

(2) Flexibility: the application is written in java and has the feature of across-platform, and browser is the client of B/S pattern, which is simple and convenient for user to use the management system in different operating systems.

2.3 Hardware requirement

Writing additional client is not needed because this project uses the B/S pattern. It only requires a computer as server, the user of supermarket personnel management system only need to access by a

browser. So the hardware is undemanding, and dominant hardware is enough, for example, CPU main frequency is over 1.6G, memory is 1G and upwards, then hard disk is 100G and higher. Operating system requires: windows XP or windows2000 and above; database software demand: MySQL or Oracle database; server software demand: Tomcat 6.0.

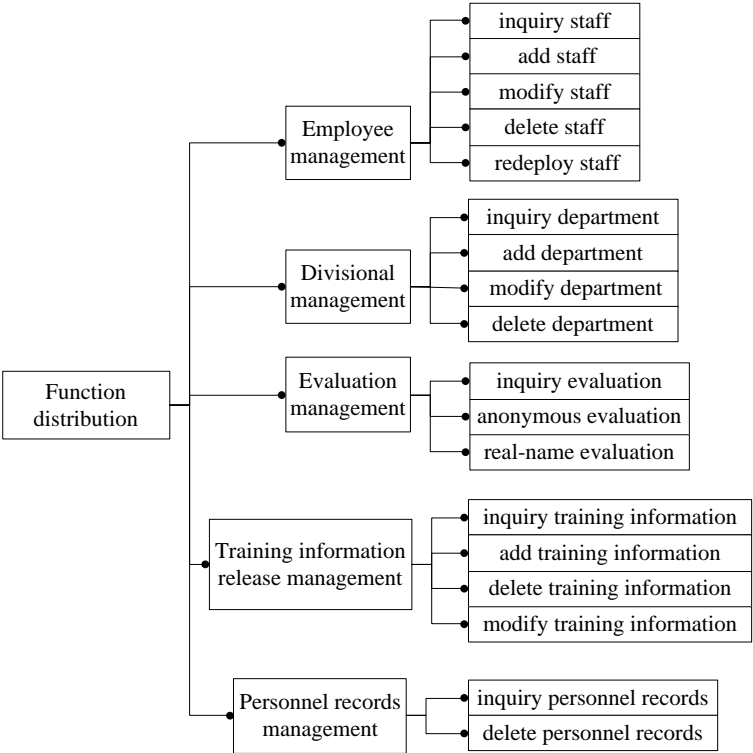


Fig. 1 modular structure chart of system function

3. Overall designs

3.1 Operation flowDiagram

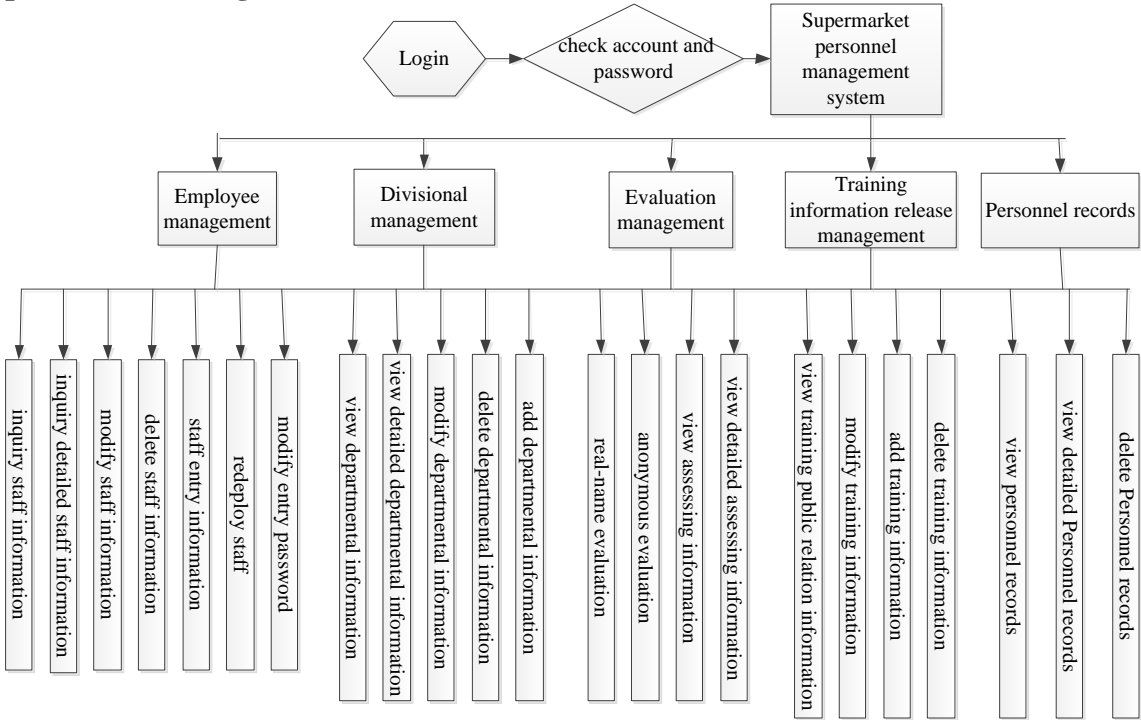


Fig. 2 Operation flow chart

3.2 Data Flow Diagram

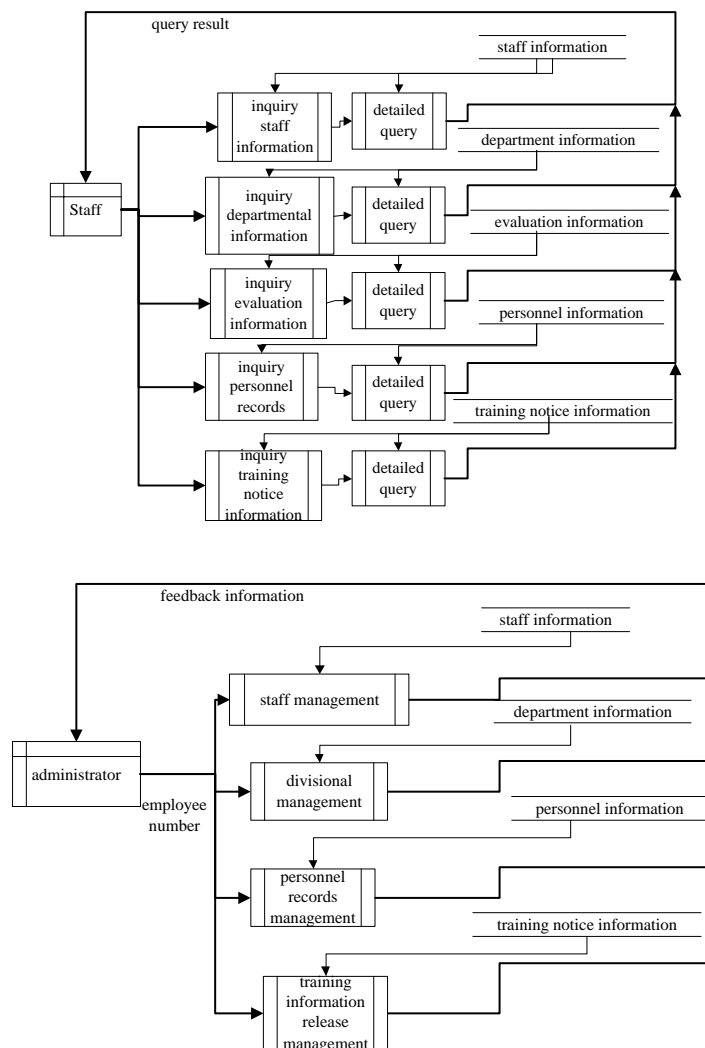


Fig. 3 data flowchart

Some sentences of creating table:

Create table tb_dept

(dt_idint primary key auto_increment,

dt_namevarchar(50),

dt_createTimevarchar(30),

dt_bztext

)ENGINE=InnoDB DEFAULT CHARSET=gbk COMMENT='department table';

4. detailed design

Using the module of redeploying staff as an example, this function is mainly applied to staff transfer. When the employee needs to be transferred, the administrator (staff of personnel department) can enter the system of “staff management” to transfer employee, and then chooses the employee in staff list, clicking the “transfer”. This moment the page of staff transfer will appear, and the operations such as “employee promoted” and “exchange employee department” can be achieved in this page.

In the operation of “employee promoted”, people can check whether there had been another manager in this department when the employee is promoted as manager. It will be fail if there is another manager, and then go to related interface of error. Otherwise the operation succeeds and this operational information will be recorded in personnel records table, and it will jump to the related interface.

Flowchart of staff transfer as follow:

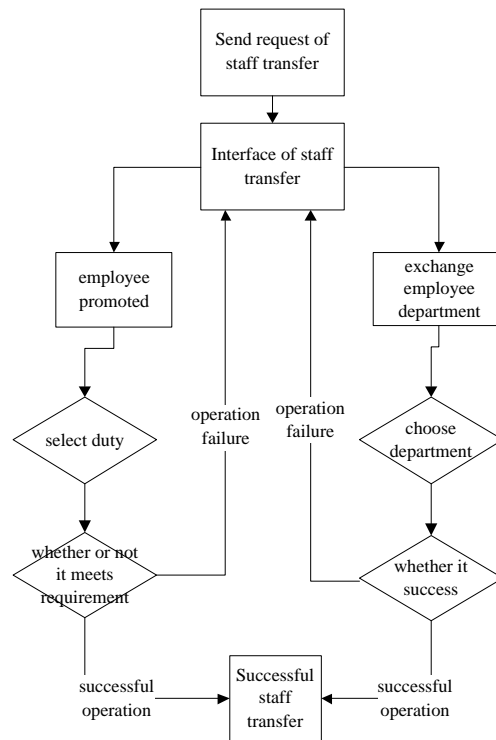


Fig. 5 Flowchart of staff transfer

5. software testing

According to the test plan, the module testing conduct first before coming to system integration test. The test part omitted here.

6. Summary

This system adopts Struts 2 as the underlying framework, and its layered architecture uses the B/S and MVC pattern. Meanwhile the data link combines JDBC with dbcp. The main functions of the whole management system have basically realized. But there is shortcoming, such as the UI interface may not concise beauty enough. However, it's happens without effecting to the purpose of the design.

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