The Design and Implementation of Educational Management System Under the Framework of SSH

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ABSTRACT

The system architecture is designed under the framework of SSH in this paper. The functions of the present, business logic and data layers are discussed respectively, and then the performance of the system is tested. Modules such as system administrator login, student enrollment, student course, teachers score entry, etc. are tested. Test results indicate that designed system can meet the requirements of users and the system, and the intended target is achieved.

KEYWORDS

SSH Educational Management System, System Design, Test Run

INTRODUCTION

For a school, the main function of educational administration is to complete the daily management of teaching affairs. Play a significant role in the educational work. It has created an important platform for school operation. Supervised teaching process and the interaction between teachers and students. The educational administration functions include teacher and student information. Teaching plan, Examination arrangement, Achievement management, setting profession. Students' status, teaching materials storage and practice teaching management. Links are an important part of educational management content. Educational administration management system through the network, information channels, to help academic
management personnel to achieve conventional teaching management. For example, through the construction of theoretical and practical course library to develop teaching plans, by reading the commencement plan to arrange theoretical and practical schedule, through the commencement plan to set the textbook, through the class schedule to arrange examinations, through the class table to carry out teaching evaluation and so on. To achieve academic management of scientific, informatization, standardization, school education management to do long-term planning and construction, these problems are each of our education management researchers need to think and research areas. This article mainly discusses the architecture design, system test operation and so on educational administration management system.

SYSTEM ARCHITECTURE DESIGN

Educational administration system uses the Struts + Spring + Hibernate SSH framework multi-tier architecture model, the overall system framework is as shown in Figure 1.

![Figure 1. System overall framework.](image)

SYSTEM TEST

Management system research and development, after the first design and commissioning. System performance testing to detect problems in the system, such as vulnerabilities, connection errors, functional errors, test tools and ways to use a variety of test tools. As well as the mature test pattern, the main content of the test includes: The system function, the structure, the business procedure, the database, the code and so on each aspect. System user login as an example.

```csharp
static void Main()
{
    Application.Run(new Login());
}

private void Form2_Load(object sender, System.EventArgs e)
```
System Interface Test

System interface test. The main test system is the main interface to meet user needs, and whether the design of functional modules consistent, the system login main interface shown in Figure 2. The main interface of the system login includes several forms and options such as account number, role, password, department and commitment unit. There are several system administrators, teaching secretaries, teachers and students in the role. Enter the appropriate user and password that should log on to the system.

As shown in Figure 3, after the system administrator account is used to log in to the system, the background display interface of the system includes system management, basic information, teaching plan, teaching evaluation of achievement management teaching, student status management, teaching arrangement and graduation management.
Test Data Sheet

Test data table is the specific function of the system, data input, data output and other specific functional module test. To ensure the full testing of the software, as far as possible the BUG detected in the system out for the system to modify and improve the basis. This requires the test case must be representative, judgability and so on.

Educational management system test data sheet mainly functional test-based, test whether the functional modules to meet user needs, is complete. Due to the system functions more, here only to log on to the system, student enrollment, student electives, teacher input scores as an example of test cases. Login function test, as shown in Table 1.

<table>
<thead>
<tr>
<th>Type</th>
<th>Test function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use case number</td>
<td>0001</td>
</tr>
<tr>
<td>Description</td>
<td>Test system users can log in to the system</td>
</tr>
<tr>
<td>Condition</td>
<td>There are already system administrator Admin, general administrator jwgl01</td>
</tr>
<tr>
<td>Specific test content</td>
<td>Admin, jwgl01, account and password, click login.</td>
</tr>
<tr>
<td>Expected test results</td>
<td>Log in to the system and enter the main interface of the system</td>
</tr>
<tr>
<td>Actual results</td>
<td>All four users log in successfully.</td>
</tr>
</tbody>
</table>

Through the above tests, it verifies that the educational administration system has functions such as logging in to the system and can meet user needs and system requirements and achieve the predetermined goal.

CONCLUSIONS

This article uses the SSH framework multi-tier architecture model to test the system, to conduct an interface test to login system, student enrollment, student enrollment, teacher input scores as an example of test cases and analysis, the test results show the teaching management system To meet user needs and system requirements, to achieve the intended target.
REFERENCES


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