

The English Teaching System Design and Implementation Based on J2EE Campus Network

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Abstract. with the rapid development of computer network technology, based on the J2EE application, especially in higher education to be noticed by people. The construction of network education as open education system, more and more get the attention of education workers. Based on computer network technology and multimedia technology of modern network teaching, is an extension of the traditional school teaching function, under the network environment is an important aspect of information resource sharing service. How to effectively build and use of the advantages of network teaching platform nature has become the focus of research. English teaching system based on J2EE campus network design, this paper has opened up a new carrier of teachers and students exchange and communication of the new channel.

Introduction

With the rapid development of computer technology and network technology, is playing an increasingly important role in the field of education, and is becoming more and more profoundly affects the teaching contents, teaching methods, teaching mode of change. With work full implementation of the campus network construction, online education, the importance and urgency of education resource sharing and so on have been more and more attention and implementation [1]. Compared with the traditional teaching mode, network teaching has various advantages of ordinary computer assisted instruction, and overcome the limitations of its use in the single. Network coverage, flexible and varied teaching methods, teaching, education resources and learn without being limited by the space and time, can at anytime, anywhere for educates to provide education services. Therefore, it can meet the requirements of information age the talent training, are already widely used remote education, vocational education, secondary school teaching, etc.

Three-layer or multilayer structure based on J2EE B/S architecture has good maintainability and expansibility, and be able to realize the reuse of software development costs and saving development time, and also has high stability, has become the mainstream of architecture [2]. This paper introduces the developing situation of the network education of English now, and analyzes the advantages and disadvantages of online education, combines the technique of computer related to the English teaching system based on J2EE campus network design is put forward. Through the requirements analysis and general design, mainly including online teaching module, operation management module, the design and implementation of network answering module, etc. With the continuous development of network technology, many new teaching ideas and methods in this system.

J2EE development platform

J2EE (Java2 Platform Enterprise Edition) is the use of a practical industry standard enterprise Java development technology application, it is a Java technology continues to adapt to and promote the products in the process of enterprise applications [3]. It has the advantages of There is nothing comparable to this traditional Internet application mode. Start the Java technology of J2EE application program to send the application on the server to provide an independent, portable, multi user, safety and based on the standard of the enterprise platform, never let the hair in order to

simplify the enterprise application, management and deployment. J2EE platform uses a multitier distributed application model [4]. According to the implementation of encapsulated in a component application different logic functions, J2EE application constitutes a component application according to its layer is arranged on the different machines, ability of the model in reusable components, extensible security model and flexible transaction control markup language, based on the unified data exchange. In the use of J2EE B / S structure, as shown in figure 1.

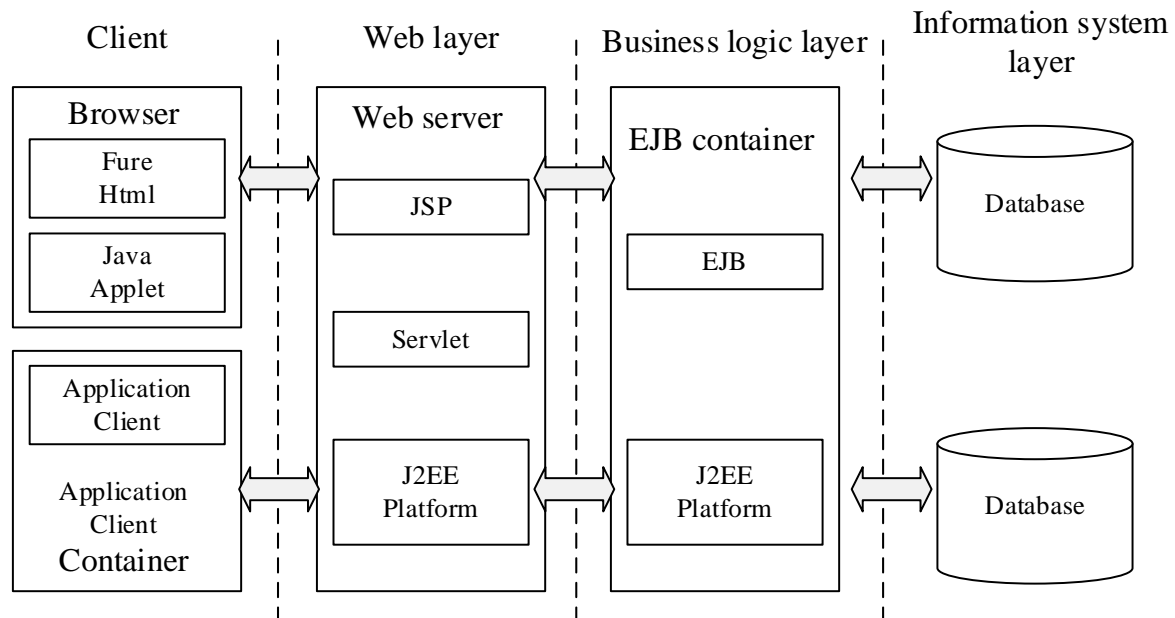


Figure 1. The structure of J2EE development platform

Multitier distributed application model means that according to the function and the application logic into components, different components and can be installed on the same server or on a different server J2EE application. Should install an application component, depending on the application components belong to which layer of the multi-layer J2EE environment. These layers are client layer, the middle layer (including the network layer and business layer) and enterprise information system (EIS).

The overall function design for the system

System can be divided into three functional modules according to different objects, one is the administrator module, teacher module, and the last one is the student module. After the administrator login is successful, personal information management, user and their class teachers; teachers after successful login, personal information, student information, student learning, student test conditions and the management of students, the students according to their class, can after successful registration, login, can students personal information management, can complete the task of learning, to check the learning process use a dictionary tool, examination, and the query results to participate in a variety of, can also operate on messages and reply to [5]. The overall system function module of the English teaching system design based on J2EE campus is shown in figure 2.

The administrator module including personal information maintenance module, user management module and the teachers' class management module. The administrator module to query or modify personal information, personal information manager module. The administrator user management module interface to the teacher, the teacher can be a user query, add, delete or modify operation, the system will according to the input query conditions listed in table user information in line with the conditions, then the teacher administrator user information can add, delete or modify operations, if you don't succeed operation, operation results in teachers information list. After the success of the operation will exit interface. The teacher module including personal information maintenance module, learning module student user information module,

dictionary management module, test module, student management module, forum. The student module is used for students to manage their personal information maintenance, dictionary query module, students test, the student learning and forum.

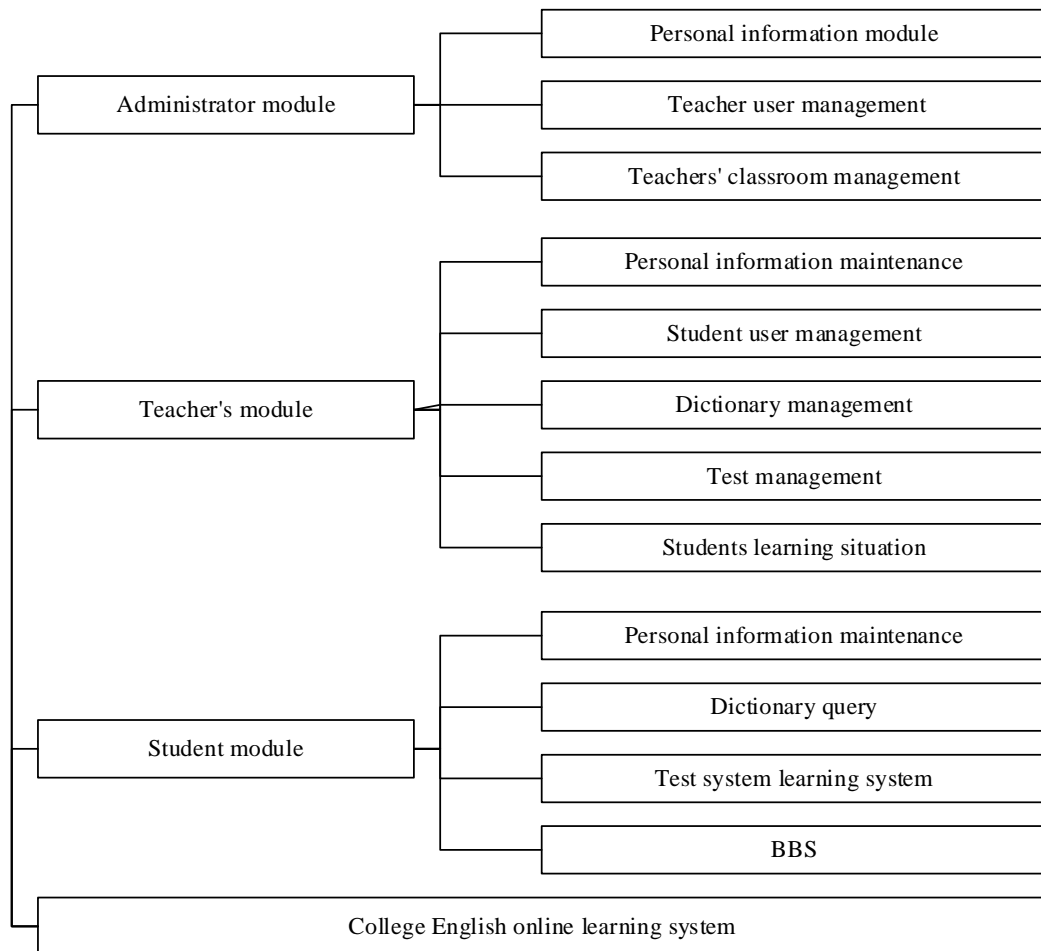


Figure 2. The function module of English teaching system based on J2EE campus

System architecture design

This system based on Web technology of J2EE development way. The overall architecture of this article to the English teaching system in detail design. At the same time, the main business object system (administrators, teachers and students) to classify design, also are in the role of each function module for the specific idea, and the activity diagram of the main business. In addition, still need to design the corresponding database table, the main object modeling design and analysis. The architecture of the system -based on J2EE is shown in figure 3.

The construction English teaching system is engaged in the English teaching network auxiliary infrastructure, in addition to the need '.net', ASP.NET, ADO.NET, and SQLserver2000 Enterprise technology, also need to be integrated network communication technology, network multimedia database technology, network programming technology, network technology, virtual reality and artificial intelligence technology, etc. Personalized, interactive and practical is the ideological and political education network platform, the overall design of the important factors to achieve good education effect in the overall design.

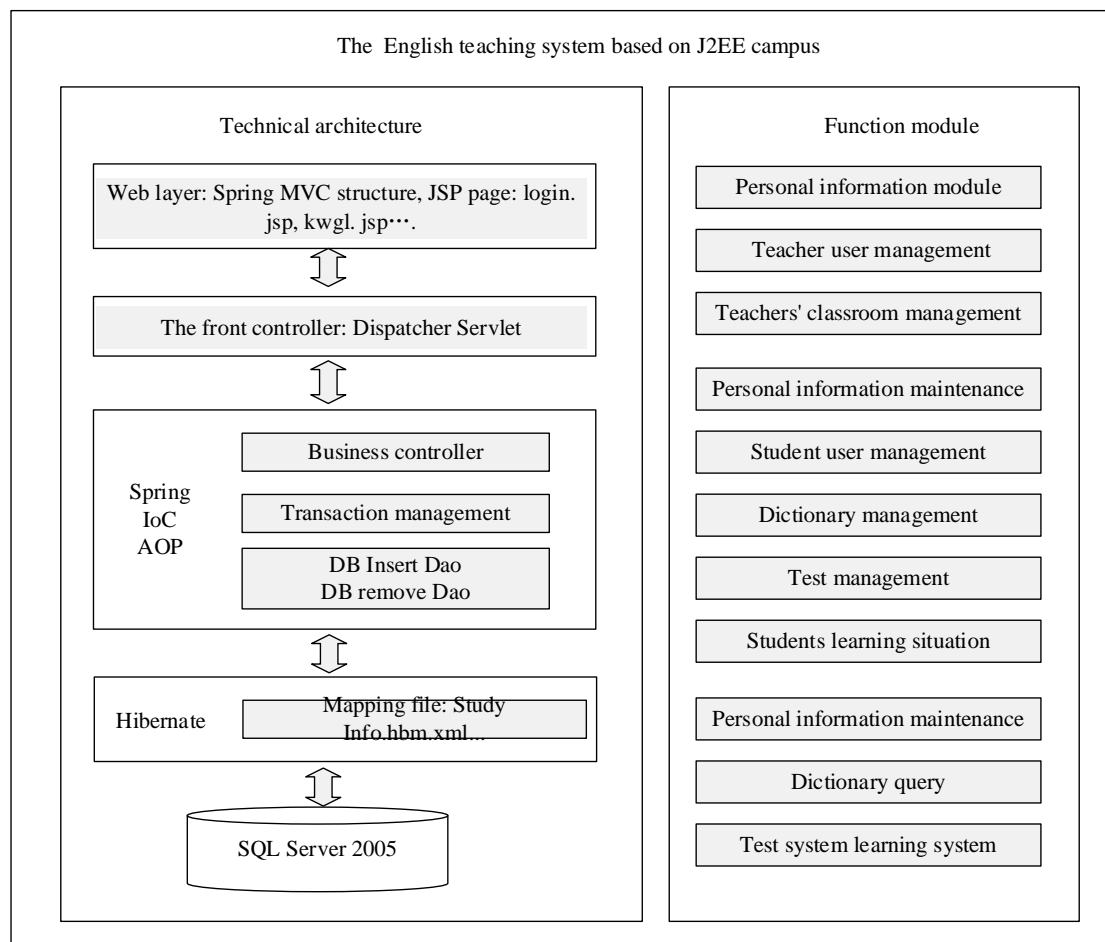


Figure 3. The architecture of the system based on J2EE

Conclusion

With the rapid development of modern information technology, computer and network technology in the application of English learning is increasingly extensive and in-depth, especially the Internet and campus network, for each big school education provides rich resources, make the web-based English online learning really become a reality. Build a intelligent system of English teaching, improve students' English learning efficiency and improve the efficiency of the management of students' English learning process, become the development trend of modern college English teaching management work. This paper studies on the English teaching system based on J2EE campus network, using this system can deal with the difficulties students learning English and management problem of students learning process, teachers can help teachers understand the students' English learning process, real-time strengthen management and supervision, improve teaching efficiency greatly.

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