



Research and Application of Web Technology and Mobile Terminal in College English Learning System

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Abstract. With the passage of time, digital learning, mobile learning and so on continue to emerge. Combining with the teaching purpose of college English courses, we develop a set of portable learning resources based on the compilation of college English textbooks. This system has expanded and improved college English teaching, so that students' learning in teaching will not be restricted by the region and space, so that they can freely make independent choices and good learning conditions, so that they can get more and more learning opportunities. In the selection of media, students' effectiveness and individual needs have been fully reflected. The system is divided into three layers: user layer, resource layer and system layer. Then it introduces the development process of the whole system. And on the basis of this system of various resources for in-depth research and learning [1].

Keywords: Web technology · Mobile terminal · English learning system · Design proces

1 Introduce

In the Requirements of College English Course Teaching, it is pointed out that in today's information society, colleges and universities should improve the existing English education mode, take teachers' teaching as the main method, use modern information technology, break time and space restrictions [2], and realize independent and personalized development [3]. English education should adhere to the idea of interestingness, practicability and knowledge, and the new teaching method should start from this point of view to fully stimulate the enthusiasm of teachers and students. Curriculum Requirements emphasizes the improvement of students' English listening, speaking and speaking skills. At present, the reform of English education should focus on the concept of "people-oriented" and "people-oriented" education. Change the traditional teaching method of "indoctrination" and emphasize the "autonomy" of "Jean". This brings new challenges to the updating of the content, means and concepts of college English teaching. At present, although English textbooks are very rich in content, they have not been effectively used, so a good ecological environment has not been formed [4].

2 English Learning System Framework Design Based on Web Technology and Mobile Terminal

In order to meet the application requirements, the author improved and expanded the function of the framework, combined with the characteristics of the English textbook learning resource library, and designed the framework structure diagram as shown in Figs. 1 and 2 [5].

According to the teaching conditions, students' foundation and vocational requirements, English teaching is divided into three levels: general requirements, intermediate requirements and advanced requirements, each level will affect students' oral expression ability [6].

Transfer the above information to the data access layer, store, or use the functions of the data access layer, re-read the stored data, to fulfill the user's business functions. In reality, dynamic coding of the HTM is generated by a web server, embedded in the HTM, and fed back to the user. As shown in Fig. 3.

The Person class is inherited from the Teacher and Student classes, i.e.

Both the Teacher and Student classes are subclasses or derivatives of the Person class, which is a Teacher.

Class and Student class. As can be seen from the figure, according to the object-oriented inheritance principle, Teacher.

Class and Student both have the Sex, Name, and Age properties of the Person class, as well as the Wear () and Eat () operations, and the Study () and Class () properties

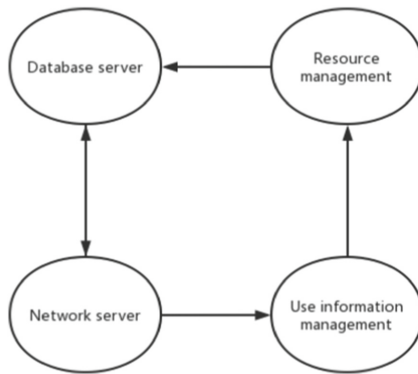


Fig. 1. English learning system framework based on Web technology and mobile terminal system layer

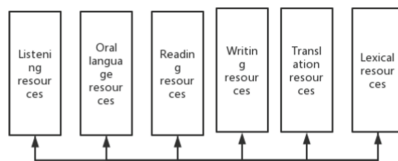


Fig. 2. English learning system framework based on Web technology and mobile terminal

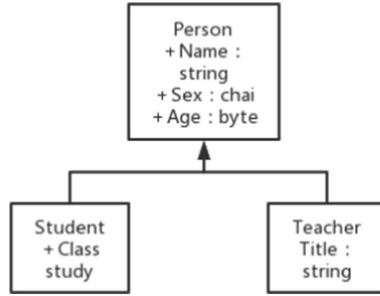


Fig. 3. Inheritance of objects

are special classes of the Student class. The Teach () operation and Title () attribute are special classes of teachers [7].

The core technology of this module is Login detection, the code implementation is as follows: public String Login() throws Exception {

// The user name is incorrect.

if(userService.checkUserExist(user.getUsername() == false).

return "noUser"; // The user password is incorrect.

if(userService.checkUsernameCorrect(user.getUsername(), user.getPassword()) == false).

return "wrongPassword"; // Log in as an administrator.

if(userService.getTypeByName(user.getUsername().equals("admin"))).

return "admin" [8];

In the user management module, key use cases include adding new users, changing user permissions, changing passwords,

To change the user's basic information, the specific implementation code is as follows:

1. Code implementation of adding new users:

public String Add() throws Exception {

user.setType("user") [9];

userService.addUser(user);

HttpServletRequest request = ServletActionContext.getRequest().

request.setAttribute("tipMessage", "Congratulations, adding successfully! Click OK to return.

Log back in ");

return "success";}

2. Code implementation of changing user permissions:

// Get the user entity.

public String editBr() {

if(Id == 0).

br = null; else.

br = User.findBDByID(Id); return "success";}

// The permission is changed.

public String editAuthority() throws Exception {

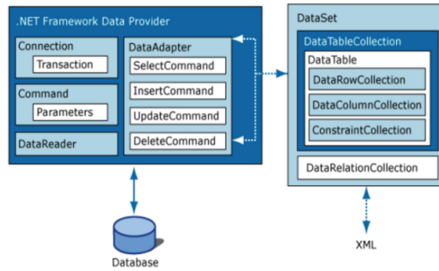


Fig. 4. ADO.Net architecture

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if(ar.getId() > 0){
    String newFileName = "$" + ar.getStartimgname(); String newFileName2 = "$"
+ ar.getEndimgname();
    String realPath = ServletActionContext.getServletContext0.
    .getRealPath("/upload"); if(! new File(realPath).exists()){
    new File(realPath).mkdirs();
    File imageFile1 = new File(realPath, newFileName1);
    File imageFile2 = new File(realPath, newFileName2); copy(myFile1, imageFile1);
copy(myFile2, imageFile2); ar.setStartimageaddr(realPath);
    ar.setEndimageaddr(realPath);As shown in Fig. 4.

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In recent years, the development of mobile assisted teaching resources has made great progress, but its application in practice is still lacking. Therefore, in the early development of the system, or in the process of requirements analysis, due to the difference of researchers, and different cultural backgrounds, resulting in the development of software needs. Therefore, prototyping is often used. The model has the following characteristics: 1) can shorten the development cycle, low cost, and can be applied quickly; (2) vivid image, follow the law of gradual development; (3) Avoid different needs conflicts between users and developers. The resource builder will define the software, then quickly model the architecture based on the architecture, and the architect will provide corrections based on the architecture. The programmer then refines and refines the system until it meets the requirements [10].

The overall design process of the system is composed of five parts, which are described in detail: (1) it is described in detail. It means to analyze the syllabus of English teaching, determine the purpose of the teaching system, and carry out the teaching for the subsequent teaching and teaching. Navigation design, detailed design, interface design and so on are all part of the design.

In these aspects, the design of the navigation system can make the user quickly and easily find out the required information. The specific architecture determines the model and algorithm of each component, and the design of the interface is to develop the software interface according to the "golden rule". (3) Prototype implementation refers to the correct understanding of the model based on the content of analysis and design in very few times; (4) Comprehensive development of resources, including resource collection, resource development, text resources, image resources, video resources, animation resources, etc. Finally, comprehensive various resources to form relatively complete

Table 1. Student information sheet

Student information sheet					
Serial number	name	Allow null	Data type	Maximum length	Primary key or not
1	Student number	No	Int	10	Yes
2	name	No	Varchar	8	No
3	Former name	Yes	Varchar	8	No
4	gender	Yes	Bit	2	No

teaching resources; (5) Test revision, that is, the existing resources and software problems are improved, and the results of the previous three stages are compared with the content and purpose of the course, so that the software, hardware and learning resources can be better supplemented, so as to achieve the purpose of the system. As shown in Table 1.

3 Design Process of English Learning System Based on Web Technology and Mobile Terminal

(1) SMS. SMS has the advantages of low cost, instant communication, high efficiency, suitable for the description of text messages and adapt to people's life habits; But due to the limitation of the number of words, it can convey little information, the performance is not so realistic. In English class, we can try to make reading and words into text and treat it as a kind of auxiliary learning material. Teachers can send text messages to students or ask them to send them themselves. MMS is a kind of short message, such as mobile newspaper, it can transmit all kinds of multimedia learning information, such as animation, audio and pictures; Compared with previous books, electronic books have replaced paper in a sense. Electronic books are easy to carry and read. They must be read by special devices, which are generally stored in digital form in mobile phone terminal devices with electric and magnetic media. As there is no geographical restriction, electronic books can be downloaded and read anywhere at any time, saving users a lot of time, and its storage capacity also exceeds that of paper books. Can be the university textbooks, materials, exam questions in the past into electronic books, convenient for students' daily review; (3) Website. You can browse the study materials online. WAP is a good example. WAP is a mobile device based on WAP, which can communicate with the network through WAP. The WAP page is developed by WML and can be accessed by any mobile phone with WAP installed. Web page is one of the most important forms of mobile teaching, it can integrate a variety of different teaching materials, form a website for students to use; (4) Multimedia teaching. Microcourseware is a small teaching tool, mainly in a variety of new media, can allow students in short rest and movement, teaching. Compared with conventional teaching software, micro teaching software can not only show clear hypertext and a variety of multimedia expression, but also realize the control of teaching process, teaching content display, teaching effect detection and other aspects

of the commonality. Microcourseware is a simple course with a short learning cycle. Reading, listening, vocabulary and so on in English textbooks can become important materials for making micro courseware. Under the strong advocacy and encouragement of the government, great efforts should be made to create high-quality courses, make them into videos, and teach them through the Internet, so that more people can have access to high-quality teaching resources.

So, online teaching is a very meaningful organization. It has advanced educational theories and learning theories, excellent teaching staff, advanced educational ideas, independent, interactive and open learning process. The online teaching of English textbooks can not only solve the shortage of English teachers in many colleges and universities, but also promote the popularity of the textbooks selected.

4 Conclusion

In this paper, English learning resources are preliminarily constructed and developed, which provides a new way for college English education, a new way for English learning and a convenience for English acquisition. In a sense, it expands the connotation of English teaching materials, provides a practical basis for English teaching, and lays a solid foundation for improving the quality of English teaching materials and the level of education informatization.

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