



# Design and Implementation of Web-Based College English Teaching Resource Sharing Platform

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**Abstract.** In view of some problems in current college English teaching, such as mostly relying on books and textbooks, single teaching resources, outdated teaching contents and low interest of students, etc. In this paper, the author developed a Web-based sharing platform for college English teaching resources. The platform uses C# language to design programs, uses ASP.NET as a framework to build processes, and uses SQL server database to realize data storage and management, and divides users into two different roles: teachers and students for classified management. The construction of this platform solves the problems of low quality of teaching resources design and production and lack of systematization, gives full play to the influence of college English education, and makes contributions to the training of all-developed comprehensive English professionals.

**Keywords:** college English · resource sharing · ASP.NET · B/S structure

## 1 Introduction

With the development of global integration, most countries have trade relations. As the main tool of international trade communication, English is an important bridge for cultural exchanges among countries, plays an important role in promoting cultural exchanges among countries. The college English course, as a public required course in universities, should take this opportunity to actively integrate into the upsurge of teaching reform.

However, at present, college English teaching is faced with many problems. Firstly, teachers' resources are scarce, which leads to teachers' numerous tasks and low quality of teaching resources creation. Secondly, teaching mostly depends on textbooks, so that teaching resources are single. Finally, the content of English teaching is outdated, and a large number of contents need to be rewritten. Its research is quite difficult and takes a long time. [1] This paper holds that, in view of the shortcomings of current college English teaching resources, with the help of the application advantages of network information technology, based on Web technology, Visual studio as the development platform, C# as the development language, and ASP.NET as the server-side development framework, the construction of college English teaching resources sharing platform is

completed, focusing on professional development, comprehensive ability construction, independent development, etc., and comprehensive application solutions are put forward to make positive contributions to the cultivation of comprehensive application talents for English majors.

## **2 Introduction of Key Technologies**

### **2.1 ASP.NET**

As a dynamic Web technology, ASP.NET is a new generation of Web development platform, which was initiated by Microsoft. It provides programmers with a series of services needed for programming, such as language services, programming models and software infrastructure.

### **2.2 B/S Structure**

The browser/server structure needs to be deployed on the server side, and other software needed to access the website and run on the client side only needs to adopt the browser. In the B/S framework, users express their needs at the client and enter the corresponding parameters, and then rely on the network access server. First, the logic layer solves the user's needs, then the data needs are transmitted to the database, and the related logic is executed by the database server. Finally, the request is fed back to the business logic layer, and the business logic layer generates web pages for the client users to browse. Thus, the logic of client and server in B/S structure is more concise and clear, and data processing can be more efficient.

### **2.3 Development Process**

According to the technical requirements of the above-mentioned related applications, complete the configuration and deployment of the development environment of college English education resource sharing platform. In order to improve the scalability and portability of the system, the platform is built by C# and other related technologies. Windows version 10.0 is used as the operating system, IIS version 10.0 is used as the web server, Visual Studio 2019 is used as the bottom development tool, and SQL server 2019 is used as the database server. First, you need to open Visual Studio 2019 in the menu, create a new project, select ASP.NET web application, then click Next, preset the project properties, and then configure the web form. Then, in the solution explorer on the right, right-click the project to add a web form and name it. On the pop-up form, select MVC and add BLL, DAL and Model three-tier projects. In the Model layer, it is mainly responsible for database operation and the realization of business logic, and it is the main body of MVC. The DAL layer is mainly responsible for data access management, and provides method calls for the business logic layer. The BLL layer is just like a bridge linking the UI presentation layer and the DAL data access layer, and it is responsible for dealing with related problems involving business logic. For example, before calling to access the database, the BLL layer will judge and process the data first, and finally select the appropriate data to call.

```

if(reader.Read()==true) {
Session["User ID"] = reader().ToString().
    Session["LoginUserID"] = reader().ToString(),
    if(teacherpostdr.SelectedValue == "teacher")
    if(reader2.Read()= true){
    Response. Write(" <script language=j script>\n",
    Response. Write(" top frames['A24221']location = tlogin.aspx',\n");
    Response Write(" </script>");
    }
else{
    if(teacherpostdr.SelectedValue = "Student"){
    if(reader2.Read() == true){
    Response. Write("<script language ==jscript>\n").
    Response. Write(top frames['A24221']location = 'slogin.aspx',\n");
    Response. Write("</script>");
    }
}
}

```

**Fig. 1.** System login process code (Original)

In the process of designing and realizing the specific functions of the system, the overall functional system of the system will be built according to the procedures of login, use and exit. For example, when users log in for the first time, they need to use User Add.aspx to add user pages. If they want to use the courseware sharing function of teachers after logging in, they need to use coursewareadd.aspx to add and upload new courseware. The uploaded courseware can be queried in their personal space. Once finished, click the top right corner to exit. After all the functional modules of the system are designed and implemented, a simulation test will be conducted. When the test is correct, all the system files will be packaged and released, and deployed in IIS server. After setting the IP address, it can be used by users of the whole platform. With the introduction of the above-mentioned key technologies and theories, the overall framework process of platform development is determined, and the feasibility of establishing a platform system for sharing college English educational resources is clarified.

## 3 Function Realization

### 3.1 System Login Process

When new users first visit the platform, they need to register as official users of the platform to use the above functions. If you are already visiting this platform, you only need to fill in your user name and password, and then click Login. After the system is verified, you can access this platform and use the related service resources provided by this platform. The key code of its specific implementation process is shown in Fig. 1.

### 3.2 Teacher's End

#### 3.2.1 Courseware Sharing Module

With this module, the new courseware is added and uploaded by Courseware Add.aspx, which changes the traditional textbook teaching mode of English teachers. The Course Display.aspx is used for courseware display, and teachers can learn from themselves by observing excellent teachers' courseware, so as to promote teachers' self-growth. [5] The specific courseware upload code is shown in Fig. 2.

```

string Path = "movie" + "\\\" + System.IO.Path.GetFileName(FileUpload1.FileName);
int Size = FileUpload1.PostedFile.ContentLength;
string Type = FileUpload1.PostedFile.ContentType;
SqlConnection conn = new SqlConnection("data source=.;initial
catalog=QualityCourse, Integrated Security=True;user id=sa,password=sa"),
    SqlCommand comm = new SqlCommand("insert into [Source]
(SourceName,SourceSort,SourcePath,SourceType)
values(@SourceName,@SourceSort,@SourcePath,@SourceType)", conn);
comm.CommandType = CommandType.Text;
comm.Parameters.Add("@SourceName", SqlDbType.VarChar, 100).Value = mingzi.Text;
comm.Parameters.Add("@SourceSort", SqlDbType.Int).Value = 3;
comm.Parameters.Add("@SourcePath", SqlDbType.VarChar, 100).Value = Path;
comm.Parameters.Add("@SourceType", SqlDbType.VarChar, 50).Value = Type;

```

**Fig. 2.** Course sharing upload code (Original)

### 3.2.2 Personal Space Module

This module consists of personal files and personal collections. In the personal space, teachers can directly find all the resource courseware uploaded by themselves, and can also see the browsing data, download times and user comments of each resource. When you encounter repeated problems, you can directly use the existing resources in this space to answer them, so as to solve the problems efficiently. In the personal collection module, the excellent teaching resources of other teachers appreciated by users are mainly stored. When creating courseware, excellent teaching components can be applied to their own courseware creation to enrich the teaching content of users.

## 3.3 Student Side

### 3.3.1 Online Learning Module

This module is divided into three modules: compulsory course, top-quality core course and extracurricular extension. In the required course module, students can learn basic courses focusing on words and college English writing. The core courses are mainly aimed at the promotion and refinement of compulsory courses, mainly focusing on learning English reading, English listening and translation. Compared with compulsory courses, they are more difficult and have more complete knowledge points. The extracurricular extension module is mainly composed of foreign scenery, foreign history and oral English communication. After reading foreign historical stories, students can exchange ideas with other students online in English. As a result, students' reading ability is improved, their cultural literacy is enriched, their oral communication level is improved, and students can gain more knowledge and experience in the exchange study. [6].

### 3.3.2 Comment Exchange Module

This module includes three modules: comments, likes and online communication. It includes the following pages: Course Display.aspx is used to demonstrate courseware, and Question Add.aspx is used to add comments, and Question Modify.aspx is used as the modification of comments. Based on this, students can ask questions to teachers without the limitation of time and space, and teachers can reply online in real time,

which improves the speed of problem solving. Meanwhile, this relaxed atmosphere is also conducive to the formation of students' study habits and the cultivation of students' self-study ability.

## 4 Concluding Remarks

This paper takes the present situation of college English teaching as the main research object, with the help of the application advantages of network technology, puts forward a more comprehensive application solution. The construction of educational resource sharing platform not only improves the effectiveness of course teaching, but also promotes the transformation of teaching mode, makes the college English teaching system more perfect, and further makes a favorable attempt for the informatization construction of resource platform of college education. During the following research and exploration, we will continue to expand the applicability and practicability of the platform, so as to contribute to the cultivation of all-round balanced talents.

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