

Research on Sports Information Technology Education Platform Based on ASP-NET Technology

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Abstract: With the enhancement of information-based society, information technology has exceeded the single phase of computer technology training, developed and become information literacy education that satisfies demand of information-based society. ASP.NET technology, enjoying features such as easiness to understand, and high efficiency of development, just adapts to the trend, and plays a crucial role in Web development, becoming one of the popular tools for development. Instruction of sports information technology course takes full advantage of Internet resources. It is quite necessary to conduct education by establishing website for sports instruction. Promote transformation of educational modes, reduce difficulty in organizing classes, increase efficiency and capacity of sports education and perfect educational assessment through development and practice of sports education platform.

Keywords: ASP-NET technology, education platform, sports information.

1. SERVICE FRAMEWORK OF ASP-NET TECHNOLOGY

ASP.NET, which marks a server technology that combines various web elements as well as a uniform web development platform, provides various services required by a completed web application program. To a larger extent, grammar of ASP.NET is compatible with ASP. In addition, it also offers a new kind of program model and structure with the purpose of generating flexible application programs with higher security and stability. Compared with ASP, ASP.NET can provide better support to various browsers. It offers code compiling mechanism with clearer structures and easiness to write. It is quite easy to re-use and share these codes; it also improves configuration, flexibility, security and reliability. More importantly, ASP.NET puts compiled language into application, thus improves flexibility. Besides, it also uses webform technology to conduct more intuitive development, and promotes reusing of components by utilizing object-oriented technology [1]. In addition, ASP.NET also includes page accidents, web control, buffer technology, server control and improvement on data binding. Core of .NET platform is a series of new sets that is also named as .NET framework, which provides a platform that can develop Windows-based programs and Web application programs in a rapid manner [2].

Net framework enjoys two primary components: common language runtime and .NET framework class lib, which offers fundamental technological support to the realization of .NET platform. Common language runtime, which is the executive engine of .NET platform, marks service established at the bottom layer of operating system [3]. .NET framework includes a set of class lib that can be applied

to any programming language, the purpose of which is making it easy for programmers to establish network-based application and service. Above the set are numerous models of application programs, which are capable of providing advanced components and service for network application and service development [4].

2. STRUCTURAL FEATURES OF ASP.NET

The two-layer application program, which means C/S structure application program model in early phase, is primarily composed of customer end and database end. This program is relatively simple and clear and easy to develop. However, it does not enjoy perfect flexibility in the way that program written by developers can be operated at customer end by taking up a large number of system and network resources. Difficulty in development is increasing with the intensifying of application program service logistic as well as complexity. However, development of such system is relatively simple, and does not pose high requirements on technology of developers. Therefore, it enjoys certain market in application of internal LAN. The so-called three-layered system structure means adding a middle layer, which is also called as component layer between customer and database end (Fig. 1). The three-layered system referred to does not mean three layers in the physical aspect.

It means neither simply placing three machines nor enjoying B/S applications. Instead, it means three layers in the logical sense, in other words, placing the three layers in one machine, and work such as business rules, data access and validity identification *etc.* is placed and process in the middle layer by the application program. Under general circumstance, customer end does not interact with database; instead, it establishes connection with middle layer through COM/DCOM communication, and conducts exchange with database through the middle layer (Fig. 2). Purpose of utilizing

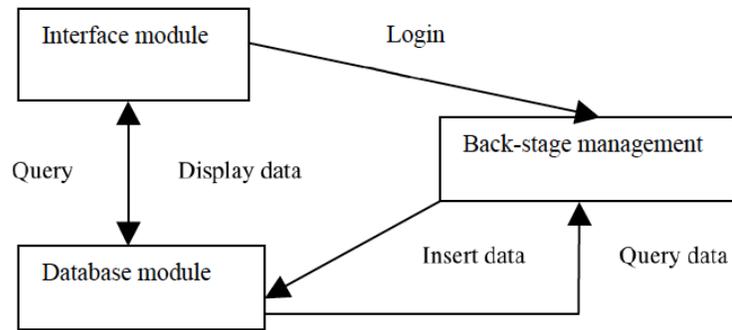


Fig. (1). The teacher information table.

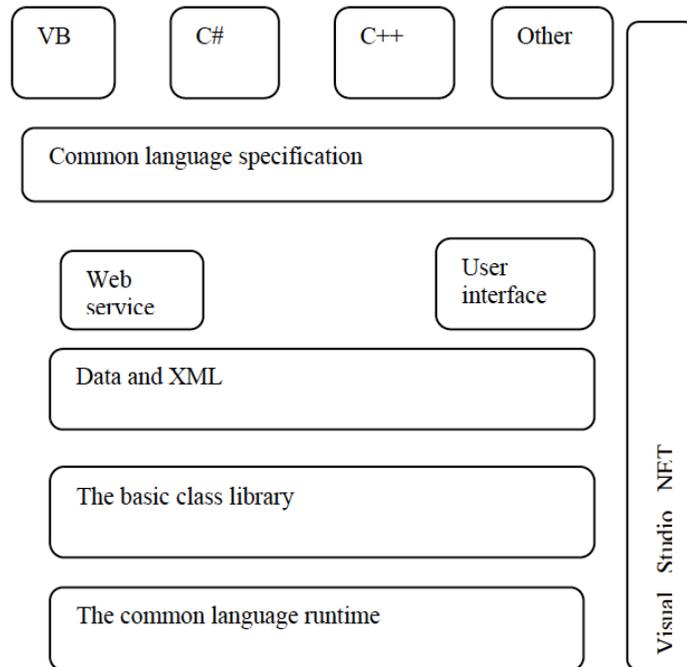


Fig. (2). Work information table.

the three-layered structure is to make program structure more clear, and division of labor more explicit, which is conducive for subsequent maintenance and update. The three-layered structure includes: USL, BBS and DAL.

3. SYSTEM FEASIBILITY

In the aspect of technology, the system conducts development and operation by putting into application the most extensively used ASP.NET+SQLserver2005, which marks the optimal choice from whether security, expansibility or stability. Meanwhile, the system, which can satisfy demands of preparation by teachers prior to classes, class instruction and independent study of students, can not only shorten distance between teachers and students by taking advantage of the Internet, but also be convenient for teachers to learn about students they teach, thus driving promotion of the whole. In addition, the system is easy to operate with strong instantaneity, for instance, on-line signing in, on-line practice of typing, and users can upload and unload required materials for studying after logging in. It perfects electronic platform of lesson planning for teachers and promotes their

exchange and learning on teaching plans, completes electronic achieves of students' works, and generates scores of the process. Besides, it also perfects students' assessment platform (Including class performance, and work achievements), and promotes their interactive exchange and learning. It also completes records of class signing in and computer utilization, produces completed journeys in the computer room, perfects classroom testing platform and produces learning feedbacks immediately. The system, which enjoys easiness in operation, can be applied to different users, including both teachers and students.

4. SYSTEM MODULE DESIGN

Taking charge of interaction between system and users, interface module, which marks connector of the two, serves as the primary part to realize the function of interaction between people and computers. It can not only retrieve entry function in the database and searching content in it, but also log on management module at back stage and operate the database. Back-stage management module is the platform for administrators or teachers to update and maintain

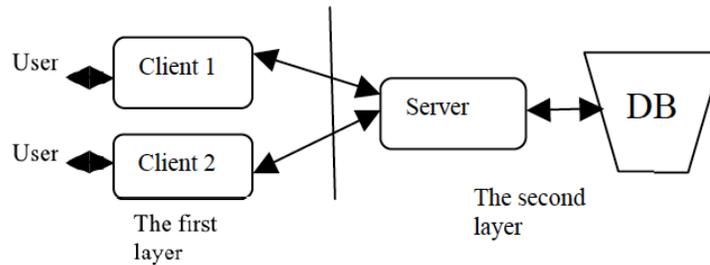


Fig. (3). C/S structure application model.

website content, through which other users can read the latest teaching resources and feedback information on the webpage (Fig. 3). Database module can define data structure, interface of the database, structure of database table, and automatically complete inputting, searching, modification of various information as well as management of system users and their rights (Fig. 4).

Software development environment

Windows2003Server

Operating system

SQLServer2005;

Database

Programming language

MicrosoftVIS}alStudio.NET2008

Development tool

Software operation environment

Operating system:

WindowsXP+115/Windows2000/2003Server or others

Operating platform: Under B/S mode, IES.O/6.0 is required to be installed in the operating system.

5. PROGRAMMING SOURCE CODE DESIGN

Demonstrate signing in information of students on the page, and then record them in database.

```
DateTimetoda DateTime.Now;
intQyeatoday.Year;
intQmonth=today.Month;
intQday=today.Day;
intQgrade=Int32.Parse(Request.Cookies["Student
Cookies"]);
Values["Sgrade,].ToString());
intQelass=Int32.Parse(Request.Cookies["Student
Cookies"]);
Values["Selass"].ToString());
Learnsite.BLL.Signin59=newLearnsite.BLL.Signin();
DataListonline.Datasouree=sg.OnlineToday(Qgrade,
Qelass,Qyear,Qmonth,Qday);
DataListonline.DataBind();
```

Document of start.aspx.es on the page of teachers instructions:

Retrieve information in the database,and demonstrate students' signing in information on the page for teachers' instruction

```
intRgrade=Int32.Parse(DDLgrade.SelectedValue);
intRelass=Int32.Parse(DDLelass.SelectedValue);
DateTimedt=DateTime.Now;
intQyear=dt.Year;
intQmonth=dt.Month;
intQday=dt.Day;
LabelToday.Text—""+dt.ToLongDatestring();
Learnsite.BLL.Signin59=newLearnsite.BLL.Signin();
DLonline.Datasouree=sg.StartsignClass(Rgrade,Rclass,
Qyear,Qmonth,Qday);
DLonline.DataBind();
intdeount=DLonline.Items.Count;
Labelsignin.Text—"&nbsp;"+deount.Tostring()+"&nbsp;";
PrivatevoidShowNosigin()
intRgrade=Int32.Parse(DDLgrade.SelectedValue);
intRelass=Int32.Parse(DDLelass.SelectedValue);
DateTimedt=DateTime.Now;
intQyear=dt.Year;
intQmonth=dt.Month;
intQday=dt.Day;
Learnsite.BLL.Signin59=newLeamsite.BLL.Signin();
DLnotline.Datasouree=sg.StartNosignClass(Rgrade,
Relass,Qyear,Qmonth,Qday);
DLnotline.DataBind();
Labelnosigin.Text—"&nbsp;"+DLnotline.Items.Count.
ToString()+"
&nbsp;P;";
```

sigllin.aspx.cs document on the interface of teacher signing in:

Information management of signing in by students. Teachers can conduct statistics on students' attendance in the whole semester.

```

    ProtectedvoidPage_Load(object sender, EventArgs)
    LearnSite.Common.CookieHelp.JudgeTeacherCookies():
    Master.Page.Title=LearnSite.Common.CookieHelp.
SetMai
    if(!IsPostBack)
    if(Request.Cookies["T
    GradeClass();
    Showsignin();
    Specifications are presented in the realization of the
document: showmission.aspx.es.

```

Source codes are as follows:

```

if(Request.QueryString["Meid"]!=null)
    {stringWeid=Request.QueryString["Meid"].ToString():
    stringWmid=Request.QueryString["Mid"].ToString():
    if(LearnSite.Common.WordProcess.IsNum(Weid)&&
    LearnSite.Common.WordProcess.IsNum(Wmid))
    Learnsite.BLL.Works=new Learn1Site.BLL.Works();
    StringSnumDone=Ws.IPWorkDonesnum(Int32.Parse
(Sgrade),Int32.Parse(Selass),Int32.Parse(Weid),Int32.
Parse(Wmid),WIP):

```

```

    if(SnumDone=="")
    if(LabelMletype.Text!="html"
    Labelmsg.Text=DateTime.Now.ToShortDateString();
    if(Snum!=SnumDone)
    if(LearnSite.Common.XmlHelp.GetWorkIPLimit())
    AttachFile.Enabled=false;
    Button of handing in will be grey and expired if the set-
ting of work handing in is IP limitation.

```

```

    Labelmsg.Text=}
    Labelmsg.Text=}
    Task work has been handed in at the IP address.
    else
    if(Session[Snum]!=null)
    AttachFile.Enabled=false;
    BtnuPload.Enabled=false;
    You have participated in the vote.
    No re-handing in is allowed.
    CISE
    The work can be modified
    stringWid=ws.WorkDone(Snum,Int32.Parse(Weid),
    Returning to null characters means the record does not
exist.
    if(Wid=="")
    Button of handing in will be grey and expired if the work
has been marked

```

```

    if(ws.IsChecked(Int32.Parse(Wid)))
    The work has been marked
    BtnuPload.Enabled=false;
    AttachFile.Enabled=false;
    CheckBoxCan.Enabled=false;
    else
    if(CheckBoxMuPload.Checked)
    }
    else
    {
    Panelworks.Visible=false;
    Time-out and expired web page
    stringPostfilename=this.AttachFile.FileName;
    intWlength=Convert.ToInt32(this.AttachFile.Content
Length);
    if(Postfilename!=""&&Postfilename!=null)
    if(LearnSite.Common.WorkUpload.CheckType(Postfilen
ame,
    Whether the type is right or not.
    Learnsite.BLL.Works=new Learnsite.BLL.Works();
    stringWid=ws.WorkDone(Wnum,Int32.Parse(Weid)
    Returning to null characters means the record does not
exist.
    if(Wid!="")
    Re-hand in modified work
    stringMysavePath=
    Obtain work saving path (Automatically establish in case
of no existence)
    stringRndTime=
    (DateTime.Parse(LoginTime)).Minute.ToString():
    stringNewFileName=Server.UrlDecode(Sname)+Wcid+
Wmid+_"+RndTime+iPlast+Mfiletype:
    stringWurl=MysavePath+"/"+NewFileName;
    stringsaveFilename=Server.MapPath(Wurl):
    try{this.AttachFile.MoveTo(saveFilename,Bret-
tle.Web.NeatUpload.MoveToOpt
    ws.UpdateWorkUP(Int32.Parse(Wid),Wurl,NewFile-
Name,Wlength,
    Curriculum activity,update,Succeed in re-handing in
work
    Labelmsg.Text=ch;
    LearnSite.Common.WordProcess.Alert(eh,this.Page):
    eatch(Exeptionex)
    {
    thLrowex;

```

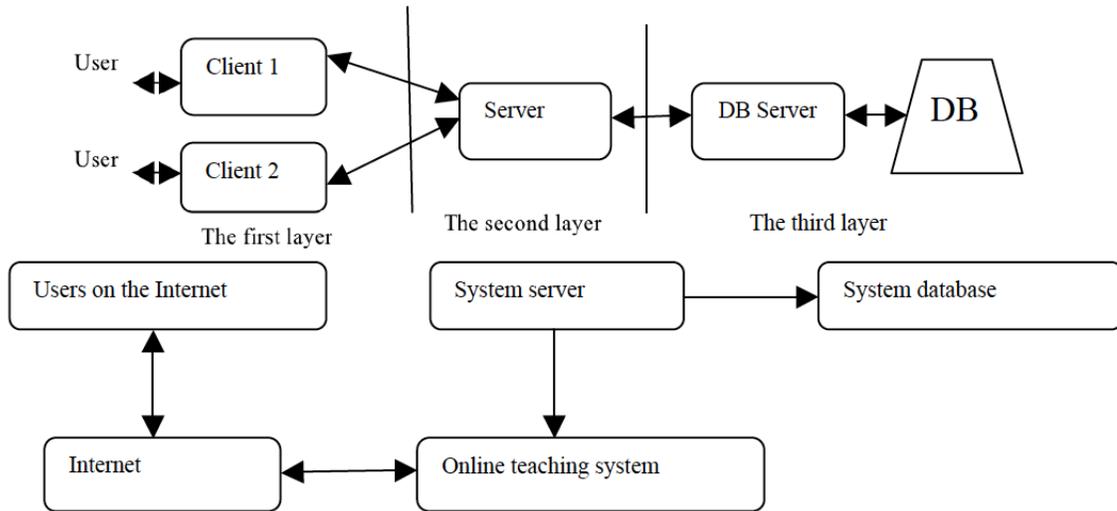


Fig. (4). Three layer system structure.

CONCLUSION

With the enhancement of information-based society, information technology has exceeded the single phase of computer technology training, developed and become information literacy education that satisfies demand of information-based society. ASP.NET technology, enjoying features such as easiness to understand, and high efficiency of development, just adapts to the trend, and plays a crucial role in Web development, becoming one of the popular tools for development. Instruction of sports information technology course takes full advantage of Internet resources. It is quite necessary to conduct education by establishing website for sports instruction. Promote transformation of educational modes, reduce difficulty in organizing classes, increase efficiency and capacity of sports education and perfect educational assessment through development and practice of sports education platform.

CONFLICT OF INTEREST

The author confirms that this article content has no conflict of interest.

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