

# College Management Module's Constructed by Advance Java in the ERP System

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**Abstract** — This paper mainly discusses the design and realization of ERP system's accounting management modules. In this paper we explain the detail design and implementation of this modules; it also separately analyzes the sub-modules of the design process in detail, which makes use of fully object-oriented language – java language. And design pattern of the modules is based on MVC architecture using JSP-Servlet. This makes the module more efficient and platform independent application. Also due to use of MVC design pattern the presentation, business, database connection logic is separated from each other. Management module is based on jsp-servlet and we are using apache tomcat web server. Our module is deployed in a LAN connection network.

**Key Words** — ERP, Java, JSP, LAN, Management, MCV, Servlet.

## 1. INTRODUCTION

ERP (Enterprise Resource Planning) system is built on the basis of information technology, using modern enterprises, advanced management ideas, and all the resources and information of enterprise; and it provides all-round and systematic platform on decision-making, planning, control and operating results of achievements. This is an enterprise information management system for college level enterprise. ERP system is information system as well as management theory and designing or processing of information from different resources. College management module like attendance management, time-table management, student/staff information management is important in college level enterprise management. Accounting Management Module enterprises are an important part of resource flows, and one of ERP systems' important part. Main components: one is based on the needs of the enterprises

to carry out the attendance process, including student daily information of attendance of each lecture; the other is the management of time-table, notices, etc. Management of student data and transactions through conventional methods which results in an erroneous output and hence affects the efficiency of an institution. The problem results in, wastage of time, huge paperwork and finally inability and ineffectiveness of work. ERP software applications to improve the performance of organizations for resource planning, management control and operational control. ERP software consists of multiple software modules that integrate activities across functional departments - from project planning, order tracking to financial accounting in an Educational Business Organization.

## 2. NEED ANALYSIS

Objective and Role of Accounting Management:

Accounting management has a new concept in ERP. In the past, Accounting system there is only reflects internal calculations, to obtain good services; but now the new ERP accounting module has already exceeded it. The main objective and role of the accounting management module are: [1] To support operational requirements. [2] To enable the user process effectively. [3] Selection, development and to ensure sources of supply. [4] To develop close contact with other teams. [5] To support the overall goals and objectives. [6] Develop a complete enterprise strategy.

## 3. THE OVERALL DESIGN

**A The Overall Structure Design**

After the need analysis and survey of the structural design, the system is as follows:

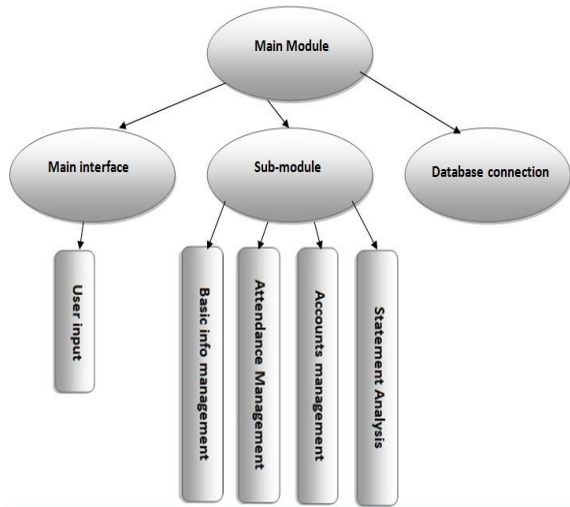


Fig 3.1 Overall Structural Design

## B Function Modules

- Main modules: Basic information management module, Accounts management module Statements analysis module.
- Basic information management: The new student/staff information, student's/staff's information deleted, student's/staff's updated information. The information of subjects of students, information of year of students.
- Attendance Management: In this part the attendance of student for lecture will be filled by their respective staff member. And on the basis of filled attendance analysis of student attendance performance on daily or monthly basis can be calculated.
- Account Management: Admin has authority to manage accounts of user. If student is cleared engineering or if staff leave college then admin will make their account inactive. Also admin will create new account for new user. Admin will decide which page access will be given to whom.
- Statement Analysis: In this part the admission notice timing note, feedback back timing note will be analyze.

## 4. DETAILED DESIGN

### A Design Details

#### 1. Basic information management modules:

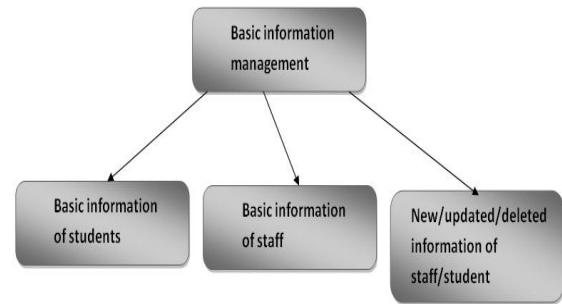


Fig 4.1 Basic information management system

#### 2. Database connection flow chart:

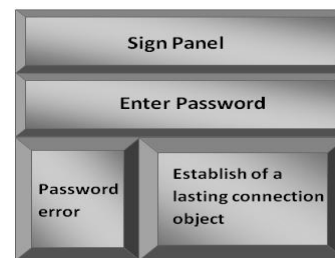


Fig 4.2 Database connection flow chart

- Function: Enter the username and password; read password; to determine the correctness of password; the establishment of lasting connection.
- Input: username, password;
- Output: the connection status information, if establish user see different operation on the screen and get set as a valid user in the database directory. If password is wrong then the alert message is display and user is denied to access.

### B Database Design

Following table structure shows the information of subject, user, and attendance table of student. Id in the user table is the primary key for user table. In subject master table it contains all year subject and there id which will act as a foreign key for attendance table to fill the attendance of each student for each table.

Column Name	Data Type	Allow NULL
Id(primary key)	int	Not NULL
Email	nvarchar(150)	Not NULL
Password	nvarchar(150)	NULL
Type	nvarchar(50)	NULL

User information Table

id	year	category_n ame	subject
1	First year	Comp	CO
2	First year	Comp	DS
3	Second year	Comp	PPS
4	Second year	Comp	M3
5	Third year	Comp	CN
6	Third year	Comp	MIL
7	Fourth year	Comp	OOMD

Subject master table

id	Data Type	Allow NULL
date	int	Not NULL
year	nvarchar(150)	NULL
category_name	nvarchar(150)	NULL
st_email	nvarchar(50)	NULL
sub1	nvarchar(50)	NULL
sub2	nvarchar(50)	NULL
sub3	nvarchar(50)	NULL
sub4	nvarchar(50)	NULL
sub5	nvarchar(50)	NULL
sub6	nvarchar(50)	NULL

Attendance Table

Fig 4-3 design of database

## 5. ACHIEVEMENT

### A. Database Connectivity

In the part of the design the java language package design is used, with a database of all relevant procedures in the package "DBCon", which make the procedures modular and enabling code reuse.

```
package com.management.connection;
import java.sql.*;
public class Database
{Statement st=null;
public Statement getConnection()
{try
{String url= "jdbc:mysql://localhost:3306/knext";
String id= "root";
String pass = "root";
Class.forName("com.mysql.jdbc.Driver");*/
Stringurl="jdbc:jtds:sqlserver://localhost:1433/College";
String id= "sa"; String pass = "mmcoe";
Class.forName("net.sourceforge.jtds.jdbc.Driver");
Connection con =
DriverManager.getConnection(url,id,pass);
st = con.createStatement();
}
catch(ClassNotFoundException e)
{e.printStackTrace();
System.out.println("Error In Database URL");
}
catch(SQLException e)
{System.out.println("THE ERROR IN SQL STRING");
}
return st;
}
```

From the above we can see a public type of connection stmt is designed, which is a type of variable, rather than a way of variables. We establish a lasting connection, so the client can stay connected with the database and the database may be accessed at any time.

### B. User Information Added

User Information Added part of the window can be achieved by the following code:

```
<!DOCTYPE html>
<html> <head> <metahttp-equiv="Content-Type"
content="text/html; charset=utf-8"/>
<title>College Management System</title><link
rel="stylesheet" type="text/css" href="main.css"/>
</head><body> <formid="registrationForm"
name="registrationForm"
action="Registration" method="post">
<div id="home_wrapper"> <table border="0"
width="100%"><tbody><tr>
<center><h1><strong>College
ManagementSystem</strong></h1></center></td>
<td style="width: 30%; height: 50%;"
align="right"><img alt="Loading ..."
```

```
</td></tr></tbody></table><table border="0"
width="100%"> <tbody><tr><td style="background-
color: #0061A9"></td><td style="background-color:
#0061A9"></td><td style="background-color:
#0061A9"></td><td style="background-color:
#0061A9"></td><td style="background-color:
#0061A9"></td></tr> <tr><td ><a href="Home"
id="menuItem" >Home</a></td><td > <a>----
</a></td><td ><a href="Contact"
id="menuItem">Contact
Us</a></td></tr>
<tr><tdstyle="background-color: #0061A9"></td><td
style="background-color: #0061A9"></td><td
style="background-color: #0061A9"></td><td
style="background-color: #0061A9"></td><td
style="background-color: #0061A9"></td></tr>
</tbody></table></div> <div id="home_wrapper"
style="height: 600px;background-color: #cceeef"><table
border="1" width="50%" style="margin-left:
350px;margin-top: 50px;color: #0061A9"
cellspacing="1" cellpadding="1">
<tbody><tr><td><fieldset><legend
><b>Registration</b></legend> <table border="0"
width="100%" > <tbody><tr><td
width="60">Name:</td> <td width="60"><input
type="text" id="name" name="name" value="" size="30"
/></td> </tr><tr><td width="60">Email-ID:</td> <td
width="60"><input type="text" id="email"
name="email" value="" size="30" /></td> </tr><tr><td -
-- >Password:</td> <td width="60"><input ---- /></td>
</tr><tr>Date Of Admission:</td> <td
width="60"><input type="text" id="doa" name="doa"
value="" size="30" /></td></tr><tr><td
width="60">Category Of Admission:</td> <td
width="60"><select id="coa" name="coa"><c:forEach
This part of the code completely is the realization of the
code window, using advance java language JSP-Servlet
technology. Using technology of Jsp-Servlet is more
flexible and more convenient. When using JSP-Servlet,
we can increase dynamic flexibility of the pages. Also
using advance java technology we can generate
enterprise portal more efficient. The handling of data as
well as the security will be maintained using such
language. The main method in jsp-servlet called GET()
and POST() maintained the security of user's password
or any other secure data transfer.
```

## 6. REFERENCES

- [1] F. Robert Jacobs, Elliot Bendoly. Enterprise resource planning Developments and directions for operations management research. European Journal of Operational Research 146, 2003, 233-240.
- [2] Matching ERP System Functionality to Customer Requirements, Colette Rolland\*, Naveen Prakash\*\*
- [3] The Design of Printing Enterprise Resources Planning (ERP) Software, Wenjie Yang, Haoxue Liu, Jie Shi Beijing Institute of Graphic

Communication Beijing, China, 978-1-4244-5265-1/10/\$26.00 ©2010 IEEE

- [4] Research of the Design of the ERP Application Evaluation System based on the Module Method, Jingmin Wang School of Business Administration North China Electric Power University Bao Ding, China, 2011 International Conference on Mechatronic Science, Electric Engineering and Computer August 19-22, 2011, Jilin, China.
- [5] Ben xin Lao, “ERP Project Performance Evaluation: The purpose of continuous improvement,” Technology Management, 2009.
- [6] F. Robert Jacobs, Elliot Bendoly. Enterprise resource planning Developments and directions for operations management research. European Journal of Operational Research 146, 2003, 233–240.
- [7] Zhengwu Lu. Java Project Development Time, China Railroad Press, 2004.3.
- [8] Ben xin Lao, “ERP Project Performance Evaluation: The purpose of continuous improvement,” Technology Management, 2009.