**《软件工程项目实验报告》**

**课程题目：学生信息管理系统**

**学院：计算机与信息工程学院**

**专业：15网络编程**

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| 一 选题背景及意义 |
| 1. 选题背景   随着计算机技术的飞速发展和网络时代的到来，我们已经进入了信息化的时代，有人也称作数字化时代。在这个数字化时代里，各个高校在各个方面的信息g康工作都受到极大挑战，随着各个高校教育规模的不断扩大，学生人数大量增加，有关学生的各种信息也成倍增加。所以对学生信息管理的问题也得到了更大的重视。做到对信息的规范管理，科学统计和快速查询。   1. 选题意义   推进高校的信息化建设：信息化是全球化的趋势和潮流，是国家社会经济发展的必然选择，信息化水平的高低已成为一个国家综合国力和发展潜力的重要衡量指标，积极推进国家信息化是我国促进经济发展的举措。信息化水平对国家信息化建设有深远影响，而学生信息管理是信息化建设的重要组成部分。 |
| 二 现状分析 |
| 随着我国国民经济建设的蓬勃发展和社会主义市场经济体制的迅速完善，各个行业都在积极使用现代化的手段，不断改善服务质量，提高工作效率，这些都在很大程度上给企业提出越来越严峻的挑战，对企业体系无论是在行政职能、企业管理水平以及优质服务上都提出更高的要求。建设一个科学高效的信息管理系统是解决这一问题的必由之路。而各大高校对学生信息管理也面临着同样严峻的形势。学生信息管理作为高校内部的一种学生基本档案管理也是如此，由于高校的在校人数较多，每一位学生的具体实际情况也不尽相同，如果没有一个完整的管理系统去完成，将使工作变得复杂冗烦，并且对于工作的效率也将使一个致命的打击，使无论如何也无法适应现代社需要的。 |
| 三 功能性能需求分析 |
| 给出系统的主要功能性能需求。可采用UML用例图描述。清楚明确为主，不限定描述  方式。  学生信息管理系统  学生登陆  管理员注册  管理员登陆  出生日期电话  删除信息  添加信息  修改信息  查询信息  用户名密码 |
| 四 系统体系结构设计 |
| 给出系统的整体架构。可采用UML模块图、序列图、类图等方式描述。清楚明确为主，  不限定描述方式。  ER图  n  管理员  学生  n  班级设置    班级  m  学院院系    学院 |
| 五 关键技术 |
| 分析系统设计开发的主要问题，以及拟采用的主要实现技术。  用Javaweb实现，主要是数据库的建立和连接，还有相关servlet请求的实现。  1：分析数据库的数据，搞清楚主键。  2：在Javaweb中完成学生登陆页面，包括验证码，将jsp转发给servlet处理和接收参数。  3：完成学生信息的注册  4：完成对学生信息的增删查改信息。 |
| 六 思想感悟 |
| 经过这几个星期的课程设计，收获颇多。也明白了自己在Java语言上自己存在的一些问题，也解决了一些一直困恼我的问题。以前自己觉得程序很简单，不放在心上。经过课程设计才使我明白做程序需要的东西是很多的，你既要懂程序而且还要有耐心和恒心。课程设计是对我的一次全面的测试，它既锻炼了我的动手的能力也磨练了我的心理素质。刚开始设计课程题目时，觉得很容易就可以做好了，但是我仔细的想了一下设计要求，我发现还有些难度的。在这次课程设计过程中遇到了问题，我就找资料，看例题。在这种情况下，我才知道什么叫做“书到用时，方恨少”的道理。以后，我要多看看有关自己专业的书了。在设计过程中，我发现了我的一些缺点，比如马虎、没耐心等等。我想：做程序设计最忌讳的就是马虎。但我相信，从现在开始我会认真的改正这些缺点，以便更好的学习专业知识。在这几个星期的课程设计中，也让我看到了一些Java程序设计方面薄弱的地方，在接下来的时间里我要好好的巩固这些方面的知识，争取学好这一门课程。我相信只要自己努力一定会成功的！！！ |
| 七 代码 |
| **UserDao：**//定义登陆注册的方法  {  public boolean login(String name,String pwd);//登录  public boolean register(User user);//注册  public List<User> getUserAll();//返回用户信息集合  public boolean delete(int id) ;//根据id删除用户  public boolean update(int id,String name, String worknumber,String sex, String home,String gangwei,String info) ;//更新用户信息  }  **UserDaoImpl：**  {    boolean flag = false;  DBconn.init();  int i =DBconn.addUpdDel("insert into user(name,worknumber,sex,home,gangwei,info) " +  "values('"+user.getName()+"','"+user.getWorknumber()+"','"+user.getSex()+"','"+user.getHome()+"','"+user.getGangwei()+"','"+user.getInfo()+"')");  if(i>0){  flag = true;  }  DBconn.closeConn();  return flag;  }  public boolean login(String name, String pwd) {  boolean flag = false;  try {  DBconn.init();  ResultSet rs = DBconn.selectSql("select \* from user where name='"+name+"' and pwd='"+pwd+"'");  while(rs.next()){  if(rs.getString("name").equals(name) && rs.getString("pwd").equals(pwd)){  flag = true;  }  }  DBconn.closeConn();  } catch (SQLException e) {  e.printStackTrace();  }  return flag;  }  public List<User> getUserAll() {  List<User> list = new ArrayList<User>();  try {  DBconn.init();  ResultSet rs = DBconn.selectSql("select \* from user");  while(rs.next()){  User user = new User();  user.setId(rs.getInt("id"));  user.setName(rs.getString("name"));  user.setWorknumber(rs.getString("worknumber"));  user.setSex(rs.getString("sex"));  user.setHome(rs.getString("home"));  System.out.println(rs.getString("home"));  user.setGangwei(rs.getString("gangwei"));  user.setInfo(rs.getString("info"));  list.add(user);  }  DBconn.closeConn();  return list;  } catch (SQLException e) {  e.printStackTrace();  }  return null;  }  public boolean update(int id,String name, String worknumber,String sex, String home,String gangwei,String info) {  boolean flag = false;  DBconn.init();  String sql ="update user set name ='"+name  +"' , worknumber ='"+worknumber  +"' , sex ='"+sex  +"' , home ='"+home  +"' , gangwei ='"+gangwei  +"' , info ='"+info+"' where id = "+id;  int i =DBconn.addUpdDel(sql);  if(i>0){  flag = true;  }  DBconn.closeConn();  return flag;  }  public boolean delete(int id) {  boolean flag = false;  DBconn.init();  String sql = "delete from user where id="+id;  int i =DBconn.addUpdDel(sql);  if(i>0){  flag = true;  }  DBconn.closeConn();  return flag;  }  public boolean update1(int id, String name, String worknumber, String sex, String home,String gangwei, String info) {  // TODO Auto-generated method stub  return false;  }  EncodingFilter：//过滤器构造  public class EncodingFilter implements Filter{  public EncodingFilter(){  System.out.println("过滤器构造");  }  public void destroy() {  System.out.println("过滤器销毁");  }  public void doFilter(ServletRequest request, ServletResponse response,FilterChain chain) throws IOException, ServletException {  request.setCharacterEncoding("UTF-8"); //将编码改为utf-8  response.setContentType("text/html;charset=UTF-8");    chain.doFilter(request, response);  }  public void init(FilterConfig arg0) throws ServletException {  System.out.println("过滤器初始化");  }  }  **ImgServlet：**//设置验证码  protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  // TODO Auto-generated method stub  BufferedImage bi = new BufferedImage(80,35,BufferedImage.TYPE\_INT\_RGB);  Graphics g = bi.getGraphics();  //先画一个显示验证码的底板，为红色，大小为80 35  g.setColor(Color.red);  g.fillRect(0, 0, 80, 35);  /\*\*  \* 设置验证码  \*/  char[] arry = "abcdefg1234567890".toCharArray();  Random r = new Random();  StringBuffer sb = new StringBuffer();  for(int i=0; i<4; i++) {  int index = r.nextInt(arry.length);  Font f = new Font(Font.MONOSPACED,Font.BOLD,30);  g.setFont(f);  g.setColor((new Color(r.nextInt(255),r.nextInt(255),r.nextInt(255))));  /\*\*  \* drawString(String star, dint x, dint y)  使用此图形上下文的当前字体和颜色绘制由指定 string 给定的文本。  \*/  g.drawString(arry[index]+"", i\*20, 30);  sb.append(arry[index]);  }  //将验证码的内容放在session中  request.getSession().setAttribute("piccode", sb.toString());  //图片的输出流，返回到客户端  ImageIO.write(bi, "JPG", response.getOutputStream());  }  **servlet:**  protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  // TODO Auto-generated method stub  String username = request.getParameter("username");  String pwd = request.getParameter("pwd");    Connection conn = DBUtil.getConnection();  String sql="select \* from username where username=? and pwd=?";  //List<user> list = new ArrayList<user>();  PreparedStatement pstm =null;  ResultSet rs = null ;  user user = null;  try {  pstm = conn.prepareStatement(sql);  pstm.setString(1, username);  pstm.setString(2, pwd);  rs = pstm.executeQuery();  while(rs.next()) {  user=new user();  user.setId(rs.getInt("id"));  user.setName(rs.getString("username"));  user.setPwd(rs.getString("pwd"));  //list.add(user);  }  } catch (SQLException e) {  // TODO Auto-generated catch block  e.printStackTrace();  }finally {  DBUtil.CloseDB(conn,pstm,rs);  }  String piccode=(String) request.getSession().getAttribute("piccode");  String checkCode=request.getParameter("checkCode"); //取值    if(checkCode.equals(piccode))  {    if(user!=null) {  HttpSession session1 = request.getSession();  session1.setAttribute("user", user);  response.sendRedirect("success.jsp");  }else {  response.sendRedirect("loging.jsp");  }  }  else  {  response.sendRedirect("loging.jsp");    }  **aa:**  public class aa extends HttpServlet {  private static final long serialVersionUID = 1L;  public aa() {  super();  // TODO Auto-generated constructor stub  }  protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  // TODO Auto-generated method stub  response.getWriter().append("Served at:速度闪躲 ").append(request.getContextPath());  }  protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {  // TODO Auto-generated method stub  doGet(request, response);  }  **DeleteServlet:**  public void doPost(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {    String id = request.getParameter("id");  int userId = Integer.parseInt(id);    UserDao ud = new UserDaoImpl();    if(ud.delete(userId)){  request.setAttribute("xiaoxi", "删除成功");  request.getRequestDispatcher("/Searchall").forward(request, response);  }else{  response.sendRedirect("index.jsp");  }  }  **DengluServlet:**  public class DengluServlet extends HttpServlet { //需要继承HttpServlet 并重写doGet doPost方法  private static final long serialVersionUID = 1L;  public void doGet(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  doPost(request, response); //将信息使用doPost方法执行 对应jsp页面中的form表单中的method  }  public void doPost(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  System.out.println("");  String name = request.getParameter("name"); //得到jsp页面传过来的参数  String pwd = request.getParameter("pwd");    UserDao ud = new UserDaoImpl();    if(ud.login(name, pwd)){  request.setAttribute("xiaoxi", "欢迎用户"+name); //向request域中放置信息  request.getRequestDispatcher("/success.jsp").forward(request, response);//转发到成功页面  }else{  response.sendRedirect("index.jsp"); //重定向到首页  }  }  **Searchall:**  public class Searchall extends HttpServlet {  public void doGet(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  request.setCharacterEncoding("UTF-8"); //将编码改为utf-8  response.setContentType("text/html;charset=UTF-8");  doPost(request, response);  }  public void doPost(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  request.setCharacterEncoding("UTF-8"); //将编码改为utf-8  response.setContentType("text/html;charset=UTF-8");  UserDao ud = new UserDaoImpl();  List<User> userAll = ud.getUserAll();  request.setAttribute("userAll", userAll);  request.getRequestDispatcher("/showall.jsp").forward(request, response);  System.err.println(request);  }  }  **UpdateServlet:**  public void doPost(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  request.setCharacterEncoding("UTF-8"); //将编码改为utf-8  response.setContentType("text/html;charset=UTF-8");    String id = request.getParameter("id");  int userId = Integer.parseInt(id);    String name = request.getParameter("name");  String worknumber = request.getParameter("worknumber");  String sex = request.getParameter("sex");  String home = request.getParameter("home");  String gangwei = request.getParameter("gangwei");  String info = request.getParameter("info");      UserDao ud = new UserDaoImpl();    if(ud.update(userId, name, worknumber, sex, home, gangwei, info)){  request.setAttribute("xiaoxi", "更新成功");  request.getRequestDispatcher("/Searchall").forward(request, response);  }else{  response.sendRedirect("index.jsp");  }  }  **ZhuceServlet:**  public void doPost(HttpServletRequest request, HttpServletResponse response)  throws ServletException, IOException {  request.setCharacterEncoding("UTF-8"); //将编码改为utf-8  response.setContentType("text/html;charset=UTF-8");    String name = request.getParameter("name"); //获取jsp页面传过来的参数  String worknumber = request.getParameter("worknumber");    String sex = request.getParameter("sex");  String home = request.getParameter("home");  String gangwei = request.getParameter("gangwei");  String info = request.getParameter("info");    User user = new User(); //实例化一个对象，组装属性  user.setName(name);  user.setWorknumber(worknumber);  user.setSex(sex);  user.setHome(home);  user.setGangwei(gangwei);  user.setInfo(info);    UserDao ud = new UserDaoImpl();    if(ud.register(user)){  request.setAttribute("username", name); //向request域中放置参数  request.getRequestDispatcher("/success.jsp").forward(request, response); //转发到登录页面  }else{    response.sendRedirect("index.jsp");//重定向到首页  }  }  }  **DBUtil:**  public class DBUtil {  private static String user="root";  private static String pwd="123456";  private static String url="jdbc:mysql://localhost:3306/33";  static {  try {  Class.forName("com.mysql.jdbc.Driver");  } catch (ClassNotFoundException e) {  // TODO Auto-generated catch block  e.printStackTrace();  }  }  public static Connection getConnection() {  Connection conn = null;  try {  conn = DriverManager.getConnection(url, user, pwd);  } catch (SQLException e) {  // TODO Auto-generated catch block  e.printStackTrace();  }  return conn;  }  public static void CloseDB(Connection conn, PreparedStatement pstm, ResultSet rs) {  // TODO Auto-generated method stub  if(conn!=null) {  try {  conn.close();  } catch (SQLException e) {  // TODO Auto-generated catch block  e.printStackTrace();  }  }  if(pstm!=null) {  try {  pstm.close();  } catch (SQLException e) {  // TODO Auto-generated catch block  e.printStackTrace();  }  }  if(rs!=null) {  try {  rs.close();  } catch (SQLException e) {  // TODO Auto-generated catch block  e.printStackTrace();  }  }  }    **loging:**  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <title>学生信息管理</title>  <link href="css/main.css" rel="stylesheet" type="text/css" />  <script type="text/javascript">  function reLoadCode() {  var time = new Date();  document.getElementById("imagecode").src="ImgServlet?id="+time;  }  </script>  </head>  <body>  <form method="post" action="serlet" >  <div class="login">  <div class="box png">  <div class="logo png"></div>  <div class="input">  <div class="log">  <div class="name">  <label>用户名</label><input type="text" value="" class="text" id="username" placeholder="用户名" name="username" tabindex="1">  </div>  <div class="pwd">  <label>密　码</label>  <input type="password" value="" class="text" id="pwd" placeholder="密码" name="pwd" tabindex="2">  <input type="text" class="text" name="checkCode" id="imac" >  <a href="javaScript:reLoadCode()" ><img src="ImgServlet" name="imagecode" id="imagecode" alt="验证码" "/>  </a>  <td>  <input type="submit" class="submit" tabindex="3" value="登录" style="width:100px; height:10px backgroung-color:#666; border-style:hidden">  </td>  <div class="check"></div>  <div>    </div>  <div class="tip"></div>  </div>  </div>  </div>  <div class="air-balloon ab-1 png"></div>  <div class="air-balloon ab-2 png"></div>  <div class="footer"></div>  </div>  <script type="text/javascript" src="js/jQuery.js"></script>  <script type="text/javascript" src="js/fun.base.js"></script>  <script type="text/javascript" src="js/script.js"></script>  <!--[if IE 6]>  <script src="js/DD\_belatedPNG.js" type="text/javascript"></script>  <script>DD\_belatedPNG.fix('.png')</script>  <![endif]-->  </form>  showall:  <%@ page language="java" import="java.util.\*" pageEncoding="UTF-8"%>  <%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>  <%  String path = request.getContextPath();  String basePath = request.getScheme()+"://"+request.getServerName()+":"+request.getServerPort()+path+"/";  %>  <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">  <html>  <%  request.setCharacterEncoding("UTF-8");  %>  <head>  <form action="tianjia.jsp">  <input type="submit"value="添加">  </form>  <base href="<%=basePath%>">  <title>所有用户页面</title>  </head>    <body>  <h1>学生信息管理系统</h1>  <h1>${xiaoxi}</h1>  <table width="400" border="1" cellpadding="0" >  <tr>  <th>ID</th>  <th>姓名</th>  <th>性别</th>  <th>学号</th>    <th>学院</th>    <th>操作</th>  </tr>  <c:forEach var="U" items="${userAll}" >  <form action="UpdateServlet" method="post">  <tr>  <td><input type="text" value="${U.id}" name="id" ></td>  <td><input type="text" value="${U.name}" name="name"></td>  <td><input type="text" value="${U.sex}" name="sex"></td>  <td><input type="text" value="${U.worknumber}" name="worknumber"></td>    <td><input type="text" value="${U.gangwei}" name="gangwei"></td>    <td><a href="DeleteServlet?id=${U.id}">删除</a> <input type="submit" value="更新"/></td>  </tr>  </form>  </c:forEach>  </table>  </body>  </html>  success:  <%@ page language="java" import="java.util.\*" pageEncoding="utf-8"%>  <%  String path = request.getContextPath();  String basePath = request.getScheme()+"://"+request.getServerName()+":"+request.getServerPort()+path+"/";  %>  <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">  <html>  <head>  <meta charset="utf-8">  <meta http-equiv="X-UA-Compatible" content="IE=edge">  <meta name="viewport" content="width=device-width, initial-scale=1">  <meta name="description" content="">  <meta name="author" content="">  <title>学生信息管理主页</title>  <!-- CSS -->  <link href="css/bootstrap.css" rel="stylesheet">  <link href="css/blog.css" rel="stylesheet">  </head>  <body>  <div class="blog-masthead">  <div class="container">  <nav class="blog-nav">  <a class="blog-nav-item active" href="index.html">首页</a>  <a class="blog-nav-item" href="#part1">往期风采</a>  <a class="blog-nav-item" href="Searchall">添加用户</a>  <a class="blog-nav-item" href="Searchall">查看所有用户</a>    </nav>  </div>  </div>  <div class="intr">  <span class="avtar" height="100px"></span>  <p class="peointr">学生信息系统</p>    </div>  <div class="title" id="part1">往期风采</div>  <div class="content">  <div class="pic pic1">  <img src="images/1.11.jpg" alt="">  <p>校运会</p>  </div>  <div class="pic pic2">  <img src="images/1.12.jpg" alt="">  <p>蜜团报道</p>  </div>  <div class="pic pic3">  <img src="images/1.13.jpg" alt="">  <p>团的十八大会议</p>  </div>  </div>  <div class="tlinks">Collect from <a href="http://www.cssmoban.com/" >网页模板</a></div>  <div class="title" id="part2">学校院系</div>  <div class="content">  <div id="carousel-example-generic" class="carousel slide" data-ride="carousel">  <ol class="carousel-indicators">  <li data-target="#carousel-example-generic" data-slide-to="0" class="active"></li>  <li data-target="#carousel-example-generic" data-slide-to="1"></li>  <li data-target="#carousel-example-generic" data-slide-to="2"></li>  </ol>  <div class="carousel-inner" role="listbox">  <div class="item active">  <p class="text"></p>  <p class="text"></p>  <p class="text"></p>  </div>    <div class="tab-pane" id="messages">  <p class="text"></p>  <p class="text"></p>  <p class="text"></p>  <img src="images/2.33.jpg" alt="...">    </div>    </div>  <a class="left carousel-control" href="#carousel-example-generic" role="button" data-slide="prev">  <span class="glyphicon glyphicon-chevron-left"></span>  <span class="sr-only">Previous</span>  </a>  <a class="right carousel-control" href="#carousel-example-generic" role="button" data-slide="next">  <span class="glyphicon glyphicon-chevron-right"></span>  <span class="sr-only">Next</span>  </a>  </div>  </div>  <div class="title" id="part3">新闻聚焦</div>  <div class="content">  <ul class="nav nav-tabs" role="tablist">    </ul>  <div class="tab-content">  <div class="tab-pane active" id="home">  <img src="images/3.11.jpg" alt="...">  </div>  <br>  <br>  <br>  <div class="item">  <img src="images/2.22.jpg" alt="...">  </div>  <br>  <br>  <br>  <div class="item">  <img src="images/2.44.jpg" alt="...">  </div>  </div>  </div>    <a href="" class="btt">顶部</a>  <!-- Js-->  <script src="js/jquery-1.9.1.min.js"></script>  <script src="js/bootstrap.min.js"></script>  <script src="js/plugin.js"></script>  </body>  </html>  **tianjia:**  <%@ page language="java" import="java.util.\*" pageEncoding="utf-8"%>  <%  String path = request.getContextPath();  String basePath = request.getScheme()+"://"+request.getServerName()+":"+request.getServerPort()+path+"/";  %>  <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">  <html xmlns="http://www.w3.org/1999/xhtml">  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">  <link href="css/main2.css" rel="stylesheet" type="text/css" />  <head>  <title>添加信息</title>  </head>  <body >  <div class="login">      <div class="log">  <form action="ZhuceServlet"method="post" style="padding-top:-700px;">  <div class="name"> 输入用户名:<input class="text" name="name" type="text"><br><br>    输入学号:<input class="text" name="worknumber" type="text"><br><br>  选择性别:<br><input type="radio"name="sex"value="男"checked>男  <input type="radio"name="sex"value="女">女<br><br>      选择学院:  <select class="text" name="home">  <option value="">计算机学院</option>  <option value="" selected>经济学院</option>  <option value="">文学院</option>  </select><br>  <br> 填写个人信息:<br>  <textarea class="text" name="info" row="5"cols="30"></textarea><br>  <table>  <tr>  <td> <input class="submit" type="submit"value="添加">    <input type="reset" class="submit" value="重置">  </td>  </tr>  </table>  </div>  </form>  </div>  </div>  <div class="air-balloon ab-1 png"></div>  <div class="air-balloon ab-2 png"></div>  <div class="footer"></div>  </body>  </html> |