**Java Web开发**

**实验四**

**作业报告**

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| --- | --- |
| 学 院 | 计算机 |
| 所在系 班 级 | 2017软件工程系10班 |
| 学 号 姓 名 | 13171224 陈煜晖 |
| 指 导 教 师 | 罗永升 |
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# 实验题目

实验内容：

1、 将实验三的三题进行改写，在Servlet控制器中获取信息，验证后根据具体情况跳转到对应页面，成功请求转发到成功页面，否则重定向跳转到失败页面（可将动态验证码添加在页面上）

\* 登录页面，提交用户名、密码及身份

改写一：支持中文，确保两种表单提交方式（get、post）都支持中文，另外对程序的空对象情况进行处理。

改写二：比如登录页面除了之前的用户名、密码另外再加上所在专业（计算机、软件工程及网络工程，单选框或下拉列表框皆可），登录成功后根据身份进行跳转，进入对应的页面，页面需显示\*\*\*\*专业学号姓名。登录失败转向失败页面，并进行报错！

# 分析与设计

关键源码（部分）

@WebServlet("/register.do")

**public** **class** Register **extends** HttpServlet {

**private** **static** **final** **long** serialVersionUID = 1L;

**private** **final** String USERS = "F:/users";

**private** **final** String SUCCESS\_VIEW = "RegisterSuccess.jsp";

**private** **final** String ERROR\_VIEW = "error.view";

**public** **void** **doPost**(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

Dao da = **new** Daoimpl();

String email = request.getParameter("email");

String username =**new** String((request.getParameter("username")).getBytes("iso-8859-1"),"utf-8");

String password = request.getParameter("password");

String confirmedPasswd = request.getParameter("confirmedPasswd");

String major =**new** String((request.getParameter("major")).getBytes("iso-8859-1"),"utf-8");

String num = request.getParameter("num");

String name =**new** String((request.getParameter("name")).getBytes("iso-8859-1"),"utf-8");

List<String> errors = **new** ArrayList<String>();

**if** (da.isInvalidUsername(username)) {

errors.add("用户名已存在或用户名为空");

System.out.println("用户名已存在或用户名为空");

}

**if** (da.isInvalidEmail(email)) {

errors.add("邮箱已存在或未填写邮箱或邮箱格式错误");

System.out.println("邮箱已存在或未填写邮箱或邮箱格式错误");

}

**if** (da.isInvalidPassword(password, confirmedPasswd)) {

errors.add("请确认密码符合格式并确认密码");

System.out.println("请确认密码符合格式并确认密码");

}

String resultPage = ERROR\_VIEW;

**if** (!errors.isEmpty()) {

request.setAttribute("errors", errors);

} **else** {

resultPage = SUCCESS\_VIEW;

createUserData(email, username, password,num,name,major);

}

request.getRequestDispatcher(resultPage).forward(request, response);

}

**private** **void** **createUserData**(String email, String username, String password,String num,String name,String major)

**throws** IOException {

File userhome = **new** File(USERS + "/" + username);

userhome.mkdirs();

BufferedWriter writer = **new** BufferedWriter(**new** FileWriter(userhome

+ "/profile"));

writer.write(email+"\t"+password+"\t"+major+"\t"+num+"\t"+name);

writer.close();

}

2login

**public** **void** **doPost**(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

Dao da = **new** Daoimpl();

String code = (request.getParameter("vcode")).toLowerCase();

String text = (String) request.getSession().getAttribute("text");

String username = **new** String(

(request.getParameter("username")).getBytes("iso-8859-1"),"utf-8");

String M=getStudentMNN(username);

String[] MNN=M.split("\t");

request.getSession().setAttribute("username", username);

request.getSession().setAttribute("major", MNN[0]);

request.getSession().setAttribute("num", MNN[1]);

request.getSession().setAttribute("name", MNN[2]);

System.out.println(code + " " + text);

System.out.println("账号 :" + username);

String password = request.getParameter("password");

**if** (da.checklogin(username, password) && text.equals(code)) {

request.getRequestDispatcher(SUCCESS\_VIEW).forward(request,

response);

request.getSession().removeAttribute(text);

} **else** {

response.sendRedirect(ERROR\_VIEW);

}

}

**public** String **getStudentMNN**(String username) **throws** IOException {

Students student = **new** Students();

String userhome = USERS + "/" + username + "/profile";

BufferedReader reader = **new** BufferedReader(**new** FileReader(userhome));

String[] count = reader.readLine().split("\t");

student.setMNN(count[0], count[2], count[3], count[4]);

**return** student.getMNN();

}

}

3 member

**public** **void** **doGet**(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

PrintWriter out = response.getWriter();

String major=(String) request.getSession().getAttribute("major");

String num=(String) request.getSession().getAttribute("num");

String name=(String) request.getSession().getAttribute("name");

System.out.print(name);

out.println("<!DOCTYPE HTML PUBLIC "

+ "'-//W3C//DTD HTML 4.01 Transitional//E'>");

out.println("<html>");

out.println("<head>");

out.println("<meta http-equiv='Content-Type' "

+ "content='text/html; charset=UTF-8'>");

out.println("</head>");

out.println("<body background='img/c.jpg'>");

out.println("<h1>学生信息</h1>");

out.println("<h2>"+major+"<br>"+num+"<br>"+name+"</h2>");

out.println("<a href='LoginSuccess.jsp'>返回</a>");

out.println("</body>");

out.println("</html>");

out.close();

}

4 Error

**public** **class** Error **extends** HttpServlet {

**private** **static** **final** **long** serialVersionUID = 1L;

**public** **void** **doPost**(HttpServletRequest request, HttpServletResponse response)

**throws** ServletException, IOException {

response.setContentType("text/html;charset=UTF-8");

PrintWriter out = response.getWriter();

out.println("<!DOCTYPE HTML PUBLIC "

+ "'-//W3C//DTD HTML 4.01 Transitional//E'>");

out.println("<html>");

out.println("<head>");

out.println("<meta http-equiv='Content-Type' "

+ "content='text/html; charset=UTF-8'>");

out.println("<title>新增会员失败</title>");

out.println("</head>");

out.println("<body background='img/c.jpg'>");

out.println("<h1>新增会员失败</h1>");

out.println("<u1 style='color:rgb(255,0,0);'>");

@SuppressWarnings("unchecked")

List<String> errors = (List<String>) request.getAttribute("errors");

**for** (String error : errors) {

out.println("<li>" + error + "</li>");

}

out.println("</u1>");

out.println("<a href='register.jsp'>返回注册页面</a>");

out.println("</body>");

out.println("</html>");

out.close();

}

5 imagecode

import java.awt.BasicStroke;

import java.awt.Color;

import java.awt.Font;

import java.awt.Graphics;

import java.awt.Graphics2D;

import java.awt.image.BufferedImage;

import java.io.IOException;

import java.io.OutputStream;

import java.util.Random;

import javax.imageio.ImageIO;

public class VCode {

private int w=70;

private int h=35;

private Color bgColor = new Color(240,240,240);

private Random random = new Random();

private StringBuilder code = new StringBuilder(4);

//用户调用这个方法获取图片

public BufferedImage getImage(){

/\*

\* 我们要写字符

\* 写什么字符,-->随机生成字符,范围0-9,a-z,A-Z

\* 字体::字号::是否粗体::-->全都随机

\* 字符颜色-->都随机

\*/

BufferedImage img = createImage();

Graphics g = img.getGraphics();

//画东西

for(int i=0;i<4;i++){

String ch = this.randomChar();//获取随机字符

code.append(ch);

g.setColor(this.randomColor());//随机颜色

g.setFont(this.randomFont());//随机字体

g.drawString(ch, w/4\*i, h-5); //写字

}

this.drawLine(img); //画干扰线

return img;

}

//这个方法必须在getImage()方法之后调用!

public String getCode(){

return code.toString();

}

private Color randomColor(){

int r = random.nextInt(256);

int g = random.nextInt(256);

int b = random.nextInt(256);

return new Color(r,g,b);

}

/\*

\* 随机生成字符

\*/

private String codes = "abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789";

private String randomChar(){

int index = random.nextInt(codes.length());

return codes.charAt(index)+"";

}

/\*

\* 字体名 样式 大小

\*/

private String[] fontName = {"宋体","华文楷体","黑体","华文新魏"

,"华文隶书","微软雅黑","楷体"};

private int[] fontSize = {24,25,26,27,28};//字号范围

private Font randomFont(){

int index =random.nextInt(fontName.length);//若数组长度为7,则生成数值为0-6

String name = fontName[index];

int style = random.nextInt(4);

index = random.nextInt(fontSize.length);

int size= fontSize[index];

return new Font(name,style,size);

}

private BufferedImage createImage() {

/\*

\* 1.创建图片

\* 2.设置背景色

\*/

BufferedImage img = new BufferedImage(w, h, BufferedImage.TYPE\_INT\_RGB);

//设置画笔颜色

img.getGraphics().setColor(bgColor);

//直充一个与图片大小一样的矩形,即设置背景色

img.getGraphics().fillRect(0, 0, w, h);

return img;

}

private void drawLine(BufferedImage img){

Graphics2D g = (Graphics2D)img.getGraphics();

g.setColor(Color.BLACK);

g.setStroke(new BasicStroke(1.5F));

for(int i=0;i<5;i++){

int x1=random.nextInt(w);

int y1=random.nextInt(h);

int x2=random.nextInt(w);

int y2=random.nextInt(h);

g.drawLine(x1, y1, x2, y2);

}

}

public static void saveImage(BufferedImage img,OutputStream out) throws IOException{

ImageIO.write(img, "jpeg", out);

}

}

6 login.jsp

base href="<%=basePath%>">

<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

<title>登录界面</title>

</head>

<style>

</style>

<body background="img/c.jpg">

<form action="login.view" method="post" name="form">

<div id="menu" style="height:150px;width:60px;float:left;">

账号:<br> 密码:<br>验证码:

</div>

<div id="text" style="height:150px;width:190px;float:left;">

<input type="text" name="username" size="25" maxlength="16"><br>

<input type="password" name="password" size="25" maxlength="16">

<input type="text" name="vcode" size="6" />(不区分大小写) <br /> <img

id="vc" src="/test2/BServlet" border="2" /> <a

href='javascript:\_change()'><br>看不清换一张</a><br> <input

type="submit" value="登录">

</div>

<script type="text/javascript">

**function \_change**() {

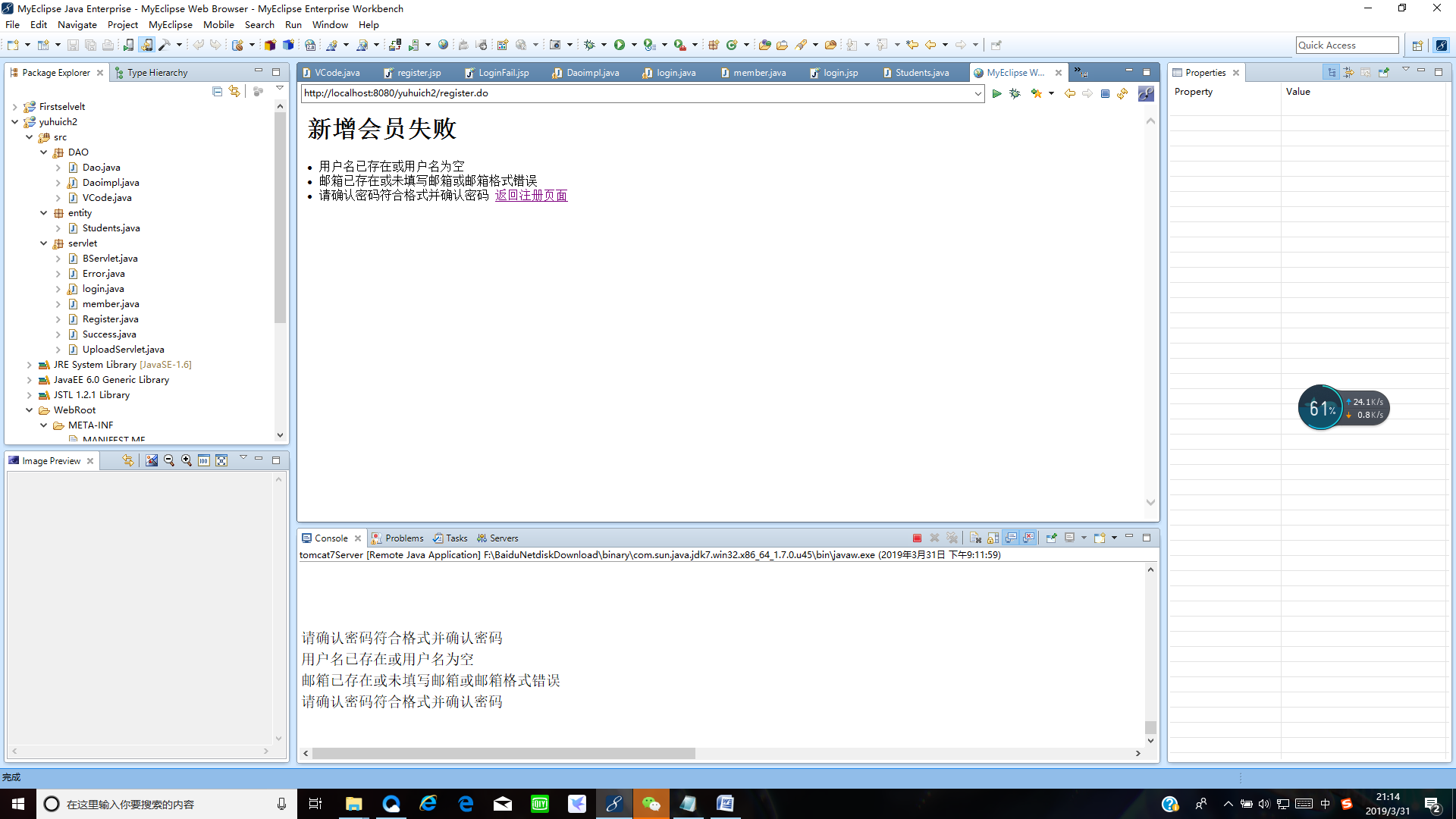
**var** img = document.getElementById("vc");

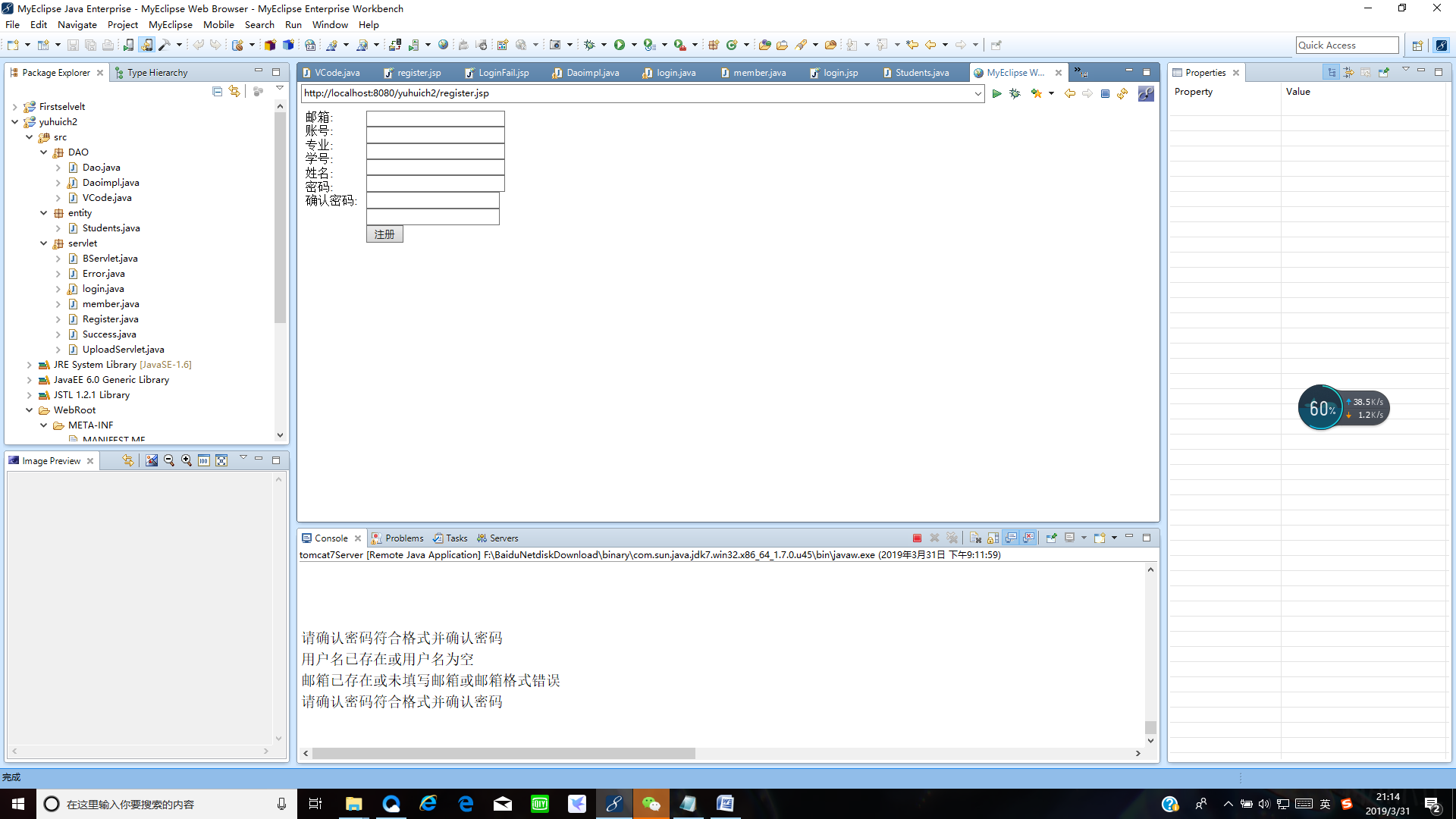
img.src = "/test2/BServlet?a=" + **new** Date().getTime();

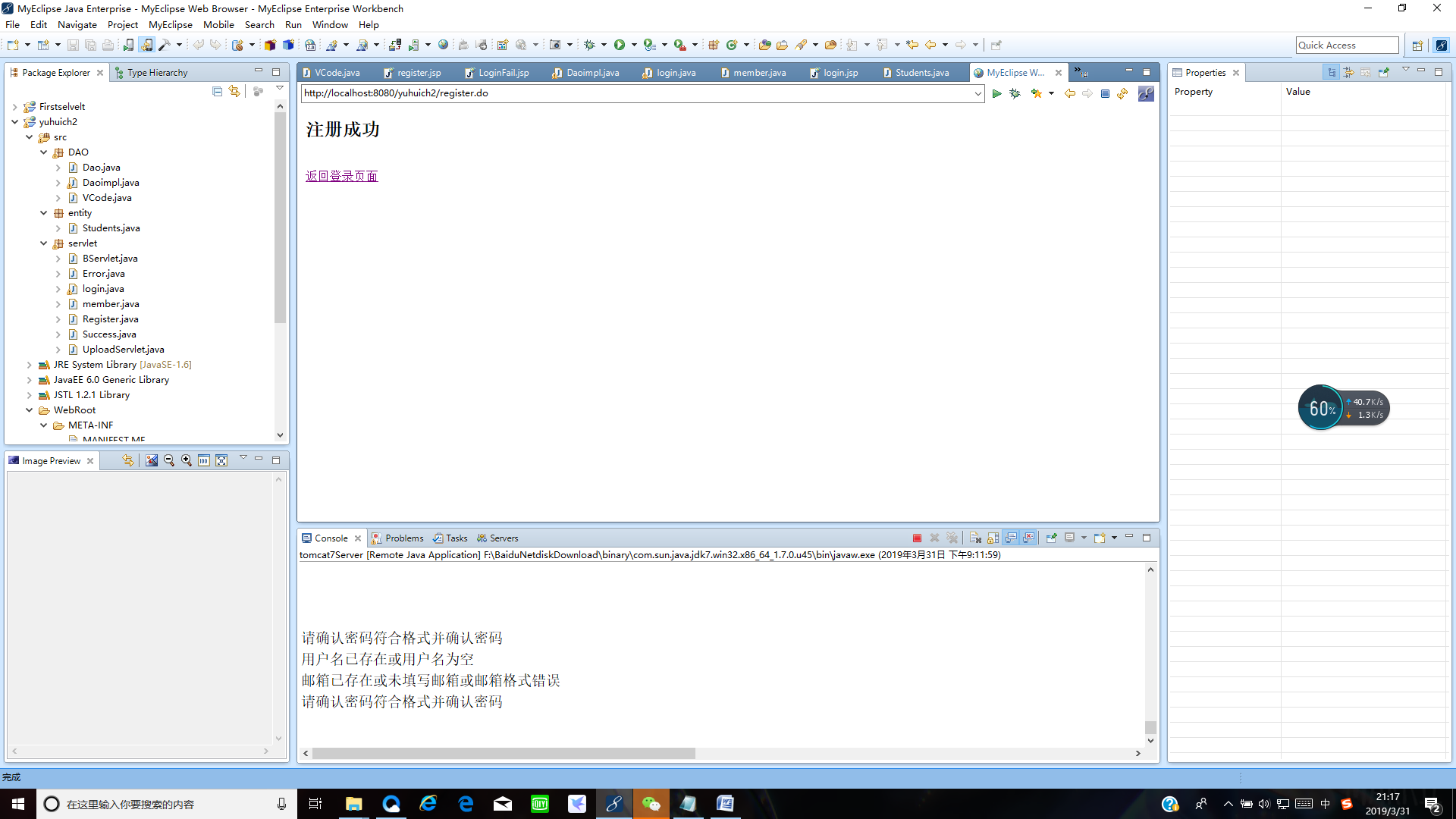
}

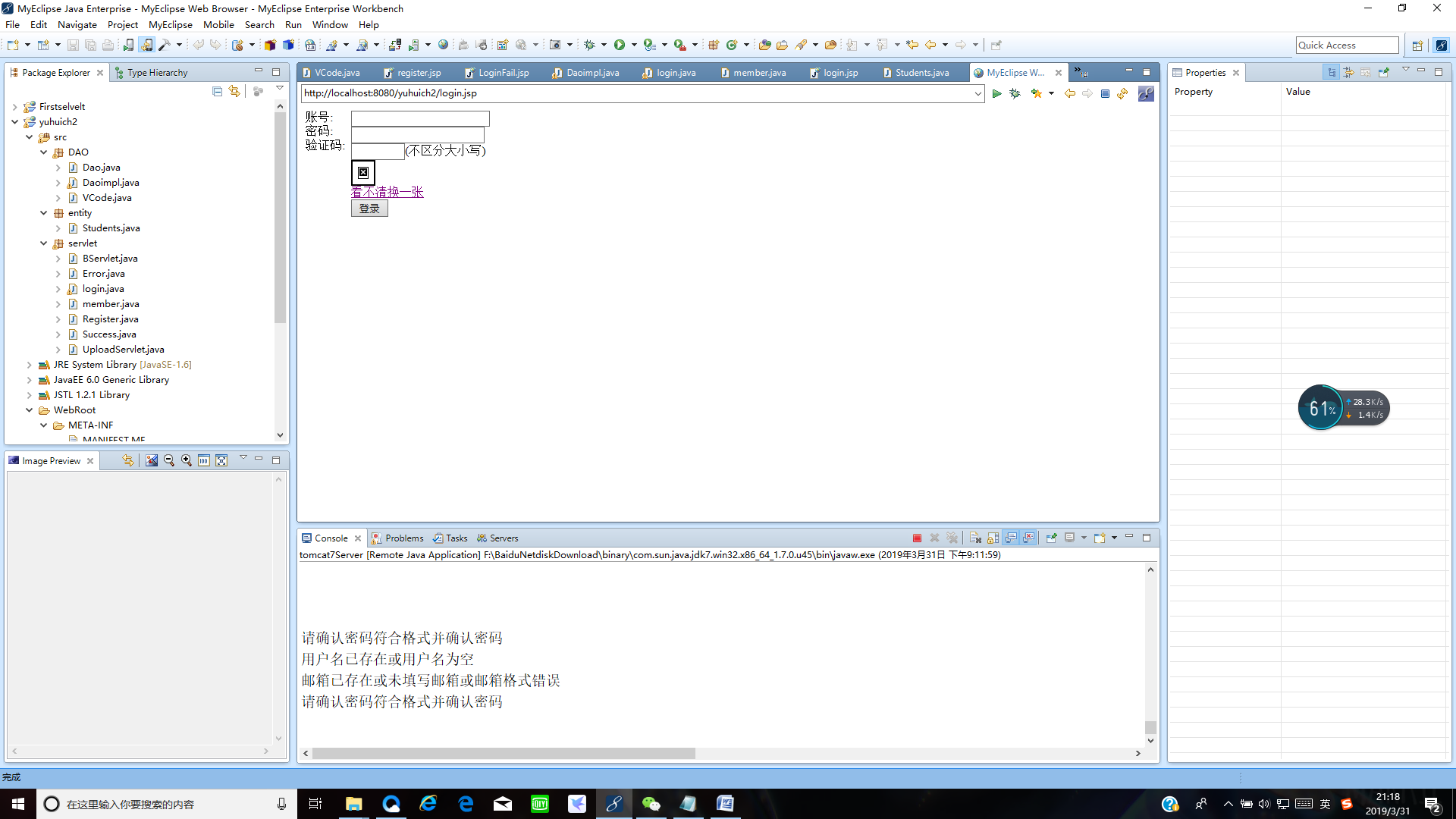
</script>

# 运行效果图









# 收获与问题

谈一谈你在本实验中所收获的内容及问题。