

# CRM 综合练习

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## 1.1 客户管理 - 上传客户资质图片

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### 1.1.1 文件上传回顾

#### 1.1.1.1 什么是文件上传

- 将本地文件以流的形式写到服务器上

#### 1.1.1.2 文件上传的技术

- JspSmartUpload

JspSmartUpload组件是应用JSP进行B/S程序开发过程中经常使用的上传下载组件，它使用简单，方便。现在我又为其加上了下载中文名字的文件的支持，真的是如虎添翼，必将赢得更多开发者的青睐。

- FileUpload

FileUpload 是 Apache commons下面的一个子项目，用来实现Java环境下面的文件上传功能，与常见的SmartUpload齐名。

- Servlet3.0
  - 文件上传
  - 注解开发
  - 异步请求
- Struts2 框架
  - 底层的实现:FileUpload,对 FileUpload 进行封装.

#### 1.1.1.3 文件上传的要素

- 表单提交的方式必须是 POST
- 表单中需要提供  未选择任何文件,而且这个文件项必须有 name 属性和值
- 表单的 enctype 属性必须是 multipart/form-data

### 1.1.2 文件上传代码实现

#### 1.1.2.1 第一步:修改JSP页面(添加)

- 提供文件上传项

```
<TR>
```

```
    <td>客户资质 : </td>
    <td colspan="3">
        <input type="file" name="upload" />
    </td>
</TR>
```

- 修改表单的 enctype 属性

```
<FORM id=form1 name=form1
    action="${pageContext.request.contextPath }/customer_save.action"
    method=post enctype="multipart/form-data">
```

### 1.1.2.2 第二部:修改 Action 中的 save 方法

- Struts2 的文件上传
  - 在 Action 中提供三个属性,对三个属性提供 set 方法
    - 字符串类型: 上传项名称 + FileName
    - 文件类型: 上传项名称
    - 字符串类型: 上传项名称 + ContentType

```
/**
 * 文件上传提供的三个属性
 */
private String uploadFileName; // 文件名称
private File upload; // 上传的文件
private String uploadContextType; // 文件类型

public void setUploadFileName(String uploadFileName) {
    this.uploadFileName = uploadFileName;
}

public void setUpload(File upload) {
    this.upload = upload;
}

public void setUploadContextType(String uploadContextType) {
    this.uploadContextType = uploadContextType;
}
```

```
/**
 *
```

```

* Title: save
* Description: 客户管理:保存客户
* @return
* @throws IOException
*/
public String save() throws IOException {
    //文件上传

    if(upload!=null) {
        //上传资质图片
        //设置文件上传的路径
        String path = "d:/upload";

        // 一个目录下存放的相同文件名:文件名随机
        String uuidFileName = UploadUtils.getUuidFileName(uploadFileName);
        // 一个目录下存放的文件过多:目录分离
        String realPath = UploadUtils.getPath(uuidFileName);

        //创建目录
        String url = path + realPath;
        File file = new File(url);
        if (!file.exists()) {
            //创建多级目录
            file.mkdirs();
        }

        //进行文件上传
        File destFile = new File(url + "/" + uuidFileName);
        FileUtils.copyFile(upload, destFile);
    }

    customerService.save(customer);
    return NONE;
}

```

### 1.1.2.3 第三步:将文件上传的路径保存到数据库中

- 修改实体

```

public class Customer {

    private Long cust_id;
    private String cust_name;
    // private String cust_source;
    // private String cust_industry;
    // private String cust_level;
    private String cust_phone;
    private String cust_mobile;
    private String cust_image; //文件上传的路径

    /**
     * 客户和字典是多对一关系,需要在多的一方放置一的一方的对象
     */

    private BaseDict baseDictSource;
    private BaseDict baseDictIndustry;
    private BaseDict baseDictLevel;

    public BaseDict getBaseDictSource() {
        return baseDictSource;
    }
}

```

- 修改映射

```

<hibernate-mapping>
<class name="com.admiral.crm.domain.Customer" table="cst_customer">
    <!-- 建立类中的属性与表中的主键的映射关系 -->
    <id name="cust_id" column="cust_id">
        <!-- 主键的生成策略 -->
        <generator class="native"></generator>
    </id>

    <!-- 建立类中的普通属性与表中的字段的映射 -->
    <property name="cust_name" column="cust_name" />
    <!-- <property name="cust_source" column="cust_source" />
    <property name="cust_industry" column="cust_industry" />
    <property name="cust_level" column="cust_level" /> -->
    <property name="cust_phone" column="cust_phone" />
    <property name="cust_mobile" column="cust_mobile" />
    <property name="cust_image" column="cust_image" />

    <!-- 配置多对一关系 -->
    <many-to-one name="baseDictSource" class="com.admiral.crm.domain.BaseDict" column="cust_source" />
    <many-to-one name="baseDictIndustry" class="com.admiral.crm.domain.BaseDict" column="cust_industry" />
    <many-to-one name="baseDictLevel" class="com.admiral.crm.domain.BaseDict" column="cust_level" />

</class>
</hibernate-mapping>

```

- 修改文件上传的方法

```

        // 创建目录
        String url = path + realPath;
        File file = new File(url);
        if (!file.exists()) {
            // 创建多级目录
            file.mkdirs();
        }

        // 进行文件上传
        File destFile = new File(url + "/" + uuidFileName);
        FileUtils.copyFile(upload, destFile);

        // 设置文件上传的路径
        customer.setCust_image(url + "/" + uuidFileName);
    }

    customerService.save(customer);
    return NONE;
}

```

- 配置跳转

Customer.java

```

package com.admiral.crm.web.action;

import java.io.File;
import java.io.IOException;

import org.apache.commons.io.FileUtils;
import org.hibernate.criterion.DetachedCriteria;

import com.admiral.crm.domain.Customer;
import com.admiral.crm.domain.PageBean;
import com.admiral.crm.service.CustomerService;
import com.admiral.crm.utils.UploadUtils;
import com.opensymphony.xwork2.ActionContext;
import com.opensymphony.xwork2.ActionSupport;
import com.opensymphony.xwork2.ModelDriven;

public class CustomerAction extends ActionSupport implements
ModelDriven<Customer> {

    // 模型驱动需要用到的对象
    private Customer customer = new Customer();

    @Override
    public Customer getModel() {
        return customer;
    }

    // 注入 Service
    private CustomerService customerService;

    public void setCustomerService(CustomerService customerService) {
        this.customerService = customerService;
    }
}

```

```

}

// 注入当前页
private Integer currPage = 1;

public void setCurrPage(Integer currPage) {
    if (currPage == null) {
        currPage = 1;
    }
    this.currPage = currPage;
}

// 注入每页记录数
private Integer pageSize = 3;

public void setPageSize(Integer pageSize) {
    if (pageSize == null) {
        pageSize = 1;
    }
    this.pageSize = pageSize;
}

/**
 *
 * Title: findAll
 * Description: 客户管理:分页查询
 * @return
 */
public String findAll() {
    // 接收分页参数
    //
    DetachedCriteria detachedCriteria =
DetachedCriteria.forClass(Customer.class);
    System.out.println(pageSize);
    //调用业务层查询
    PageBean<Customer> pageBean =
customerService.findByPage(detachedCriteria,currPage,pageSize);

    //将分页对象保存到值栈
    ActionContext.getContext().getValueStack().push(pageBean);
    return "findAll";
}

/**
 *
 * Title: saveUI
 * Description: 客户管理:跳转到添加页面:saveUI
 * @return
 */
public String saveUI() {
    return "saveUI";
}

/**
 * 文件上传提供的三个属性

```

```

    */
    private String uploadFileName;    // 文件名称
    private File upload;              // 上传的文件
    private String uploadContextType; // 文件类型

    public void setUploadFileName(String uploadFileName) {
        this.uploadFileName = uploadFileName;
    }

    public void setUpload(File upload) {
        this.upload = upload;
    }

    public void setUploadContextType(String uploadContextType) {
        this.uploadContextType = uploadContextType;
    }

    /**
     *
     * Title: save
     * Description: 客户管理:保存客户
     * @return
     * @throws IOException
     */
    public String save() throws IOException {
        //文件上传

        if(upload!=null) {
            //上传资质图片
            //设置文件上传的路径
            String path = "d:/upload";

            // 一个目录下存放的相同文件名:文件名随机
            String uuidFileName = UploadUtils.getUuidFileName(uploadFileName);
            // 一个目录下存放的文件过多:目录分离
            String realPath = UploadUtils.getPath(uuidFileName);

            //创建目录
            String url = path + realPath;
            File file = new File(url);
            if (!file.exists()) {
                //创建多级目录
                file.mkdirs();
            }

            //进行文件上传
            File destFile = new File(url + "/" + uuidFileName);
            FileUtils.copyFile(upload, destFile);

            //设置文件上传的路径
            customer.setCust_image(url + "/" + uuidFileName);
        }

        customerService.save(customer);
        return "saveSuccess";
    }
}

```

```
}
```

struts.xml

```
<?xml version="1.0" encoding="UTF-8" ?>
<!DOCTYPE struts PUBLIC
    "-//Apache Software Foundation//DTD Struts Configuration 2.3//EN"
    "http://struts.apache.org/dtds/struts-2.3.dtd">

<struts>
    <package name="crm" extends="struts-default" namespace="/">

        <action name="user_*" class="userAction" method="{1}">
            <result name="login">/login.jsp</result>
            <result name="success" type="redirect">/index.jsp</result>
        </action>

        <!-- 配置客户模块 -->
        <action name="customer_*" class="customerAction" method="{1}">
            <result name="saveUI">/jsp/customer/add.jsp</result>
            <result name="findAll">/jsp/customer/list.jsp</result>
            <result name="saveSuccess"
type="redirectAction">customer_findAll.action</result>
        </action>

        <!-- 配置字典 -->
        <action name="baseDict_*" class="baseDictAction" method="{1}">

        </action>
    </package>
</struts>
```

#### 1.1.2.4 第四步:设置文件上传拦截器

- 在 struts.xml 中设置文件上传的总大小

```
5 <struts>
7
8     <constant name="struts.action.extension" value="action" />
9     <!-- 设置 Struts2 文件上传总大小 5M -->
10    <constant name="struts.multipart.maxSize" value="5242880" />
11
12
13    <package name="crm" extends="struts-default" namespace="/">
14
15        <action name="user_*" class="userAction" method="{1}">
16            <result name="login">/login.jsp</result>
17            <result name="success" type="redirect">/index.jsp</result>
18        </action>
19
```



- 在 Customer 配置中引入拦截器栈

```
<!-- 配置客户模块 -->
<action name="customer_*" class="customerAction" method="{1}">
    <result name="saveUI">/jsp/customer/add.jsp</result>
    <result name="findAll">/jsp/customer/list.jsp</result>
    <result name="saveSuccess" type="redirectAction">customer_findAll.action</result>

    <interceptor-ref name="defaultStack">
        <param name="fileUpload.maximumSize">2097152</param>
        <param name="fileUpload.allowedExtensions">.jpg,.png</param>
    </interceptor-ref>
</action>

<!-- 配置字典 -->
```

- 配置 input 视图

```
<!-- 配置客户模块 -->
<action name="customer_*" class="customerAction" method="{1}">
    <result name="saveUI">/jsp/customer/add.jsp</result>
    <result name="findAll">/jsp/customer/list.jsp</result>
    <result name="saveSuccess" type="redirectAction">customer_findAll.action</result>
    <result name="input">/jsp/customer/add.jsp</result>

    <interceptor-ref name="defaultStack">
        <param name="fileUpload.maximumSize">2097152</param>
        <param name="fileUpload.allowedExtensions">.jpg,.png</param>
    </interceptor-ref>
</action>
```

- 在页面显示错误信息

```

5      method post enctype="multipart/form-data">
6
7      <s:fielderror />
      --

```

UploadUtils.java

```
package com.admiral.crm.utils;

import java.util.UUID;

/**
 *
 * @Description: 文件上传的工具类
 * @author Admiral
 */
public class UploadUtils {

    /**
     *
     * Title: getUuidFileName
     * Description: 解决目录下文件名重复的问题
     */
}
```

```

    * @param fileName :文件名
    * @return : 随机产生的唯一文件名
    */
    public static String getUuidFileName(String fileName) {
        int indexof = fileName.lastIndexOf(".");
        String extions = fileName.substring(indexof);
        return UUID.randomUUID().toString().replace("-", "") + extions;
    }

    public static String getPath(String uuidFileName) {
        int code1 = uuidFileName.hashCode();
        int d1 = code1 & 0xf;          //作为1级目录
        int code2 = code1 >>> 4;
        int d2 = code2 & 0xf;          //作为2级目录
        return "/" + d1 + "/" + d2;
    }

    public static void main(String[] args) {
        System.out.println(UploadUtils.getUuidFileName("aa.txt"));
    }
}

```

## 1.2 客户管理 - 删除客户

### 1.2.1 客户删除操作

#### 1.2.1.1 修改列表页面上链接地址

```

<a href="${pageContext.request.contextPath }/customer_delete.action?cust_id=<s:property value="cust_id"/>">删除</a>

```

#### 1.2.1.2 编写 Action 中的 delete 方法

```

/**
 *
 * Title: delete
 * Description: 删除客户的方法
 * @return
 */
public String delete() {
    //先查询再删除
    customer = customerService.findById(customer.getCust_id());
    //删除图片
    if(customer.getCust_image() != null) {
        File file = new File(customer.getCust_image());
        if (file != null) {
            file.delete();
        }
    }

    //删除客户
    customerService.delete(customer);

    return "deleteSuccess";
}

```

### 1.2.1.3 编写 Service

```

@Override
public Customer findById(Long cust_id) {
    return customerDao.findById(cust_id);
}

@Override
public void delete(Customer customer) {
    customerDao.delete(customer);
}

```

### 1.2.1.4 编写 Dao

```

@Override
public Customer findById(Long cust_id) {
    return this.getHibernateTemplate().get(Customer.class, cust_id);
}

@Override
public void delete(Customer customer) {
    this.getHibernateTemplate().delete(customer);
}

```

### 1.2.1.5 配置跳转

```

<!-- 配置客户模块 -->
<action name="customer_*" class="customerAction" method="{1}">
    <result name="saveUI">/jsp/customer/add.jsp</result>
    <result name="findAll">/jsp/customer/list.jsp</result>
    <result name="saveSuccess" type="redirectAction">customer_findAll.action</result>
    <result name="input">/jsp/customer/add.jsp</result>
    <result name="deleteSuccess" type="redirectAction">customer_findAll.action</result>

    <interceptor-ref name="defaultStack">
        <param name="fileUpload.maximumSize">2097152</param>
        <param name="fileUpload.allowedExtensions">.jpg,.png</param>
    </interceptor-ref>
</action>

```

## 1.3 客户管理 - 修改客户

### 1.3.1 修改客户代码实现

#### 1.3.1.1 第一步:修改list页面链接地址

```

<a href="${pageContext.request.contextPath }/customer_edit.action?cust_id=<s:property value="cust_id"/>">修改</a>

```

#### 1.3.1.2 第二步:编写 Action 中的 edit 方法

```

/**
 *
 * Title: edit
 * Description:
 * @return
 */
public String edit() {
    // 根据 ID 查询,跳转页面,回显数据
    customer = customerService.findById(customer.getCust_id());
    // 将 customer 传递到页面
    // 两种方式:第一种:手动压栈. 第二种:因为模型驱动的对象,默认就在栈顶
    // 如果使用第一种方式:回显数据: <s:property value="cust_name"/>
    // 如果使用第二种方式:回显数据: <s:property value="model.cust_name"/>

    return "editSuccess";
}

```

- 配置跳转

```

<!-- 配置客户模块 -->
<action name="customer_*" class="customerAction" method="{1}">
    <result name="saveUI">/jsp/customer/add.jsp</result>
    <result name="findAll">/jsp/customer/list.jsp</result>

```

```

        <result name="editSuccess">/jsp/customer/edit.jsp</result>
        <result name="saveSuccess"
type="redirectAction">customer_findAll.action</result>
        <result name="input">/jsp/customer/add.jsp</result>
        <result name="deleteSuccess"
type="redirectAction">customer_findAll.action</result>

        <interceptor-ref name="defaultStack">
            <param name="fileUpload.maximumSize">2097152</param>
            <param name="fileUpload.allowedExtensions">.jpg,.png</param>
        </interceptor-ref>
    </action>

```

### 1.3.1.3 第三步:在页面回显数据

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib uri="/struts-tags" prefix="s"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<TITLE>添加客户</TITLE>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<LINK href="${pageContext.request.contextPath }/css/Style.css" type="text/css"
rel="stylesheet">
<LINK href="${pageContext.request.contextPath }/css/Manage.css" type="text/css"
rel="stylesheet">

<script type="text/javascript" src="${pageContext.request.contextPath
}/js/jquery-1.11.3.min.js"></script>
<script type="text/javascript">
    $(function(){
        // 页面加载函数就会执行:
        // 页面加载, 异步查询字典数据:
        // 加载客户来源
        $.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"002"},function(data){
            // 遍历json的数据:
            $(data).each(function(i,n){
                $("#cust_source").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
            });

            //使用 EL 获取值栈的数据
            $("#cust_source
option[value='${model.baseDictSource.dict_id}']").prop("selected","selected");

```

```

    }, "json");
    $.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action", {"dict_type_code": "006"}, function(data) {
    // 遍历json的数据:
    $(data).each(function(i, n) {
        $("#cust_level").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
    });

    //使用 EL 获取值栈的数据
    $("#cust_level
option[value='${model.baseDictLevel.dict_id}']").prop("selected", "selected");
    }, "json");
    $.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action", {"dict_type_code": "001"}, function(data) {
    // 遍历json的数据:
    $(data).each(function(i, n) {
        $("#cust_industry").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
    });

    //使用 EL 获取值栈的数据
    $("#cust_industry
option[value='${model.baseDictIndustry.dict_id}']").prop("selected", "selected");
    }, "json");
    });
</script>

<META content="MSHTML 6.00.2900.3492" name=GENERATOR>
</HEAD>
<BODY>
    <s:form id="form1" name="form1" action=""
        method="post" enctype="multipart/form-data" theme="simple">

        <s:hidden name="cust_id" value="%{model.cust_id}"/>
        <s:hidden name="cust_image" value="%{model.cust_image}"/>

        <s:fielderror />
        <TABLE cellspacing=0 cellpadding=0 width="98%" border=0>
            <TBODY>
                <TR>
                    <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_019.jpg"
                        border=0></TD>
                    <TD width="100%"
background="${pageContext.request.contextPath }/images/new_020.jpg"
                        height=20></TD>
                    <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_021.jpg"
                        border=0></TD>
                </TR>
            </TBODY>
        </TABLE>
        <TABLE cellspacing=0 cellpadding=0 width="98%" border=0>
            <TBODY>
                <TR>
                    <TD width=15 background=${pageContext.request.contextPath
}/images/new_022.jpg><IMG

```

```

src="${pageContext.request.contextPath
}/images/new_022.jpg" border=0></TD>
<TD valign=top width="100%" bgColor=#ffffff>
<TABLE cellSpacing=0 cellPadding=5 width="100%"
border=0>

    <TR>
        <TD class=manageHead>当前位置： 客户管理 &gt; 添加客户
    </TD>

    </TR>
    <TR>
        <TD height=2></TD>
    </TR>
</TABLE>

<TABLE cellSpacing=0 cellPadding=5 border=0>

    <TR>
        <td>客户名称： </td>
        <td>
            <s:textfield class="textbox" id="schannel2"
style="WIDTH: 180px" maxLength="50" name="cust_name" value="%{model.cust_name
}"/>
        </td>
        <td>客户级别： </td>
        <td>
            <select id="cust_level"
name="baseDictLevel.dict_id">
                <option value="">-请选择-</option>
            </select>
        </td>
    </TR>

    <TR>

        <td>信息来源： </td>
        <td>
            <select id="cust_source"
name="baseDictSource.dict_id">
                <option value="">-请选择-</option>
            </select>
        </td>
        <td>所属行业： </td>
        <td>
            <select id="cust_industry"
name="baseDictIndustry.dict_id">
                <option value="">-请选择-</option>
            </select>
        </td>
    </TR>

    <TR>

        <td>固定电话： </td>
        <td>
            <s:textfield class="textbox" style="WIDTH:
180px" maxLength="50" name="cust_phone" value="%{model.cust_phone}"/>

```

```

        </td>
        <td>移动电话 : </td>
        <td>
            <s:textfield class="textbox" style="WIDTH:
180px" maxlength="50" name="cust_mobile" value="%{model.cust_mobile}"/>
        </td>
    </TR>

    <TR>

        <td>客户资质 : </td>
        <td colspan="3">
            <input type="file" name="upload" />
        </td>
    </TR>

    <tr>
        <td rowspan="2">
            <INPUT class=button id=sButton2 type=submit
                value=" 保存 "
name=sButton2>
        </td>
    </tr>
</TABLE>

</TD>
<TD width=15 background="${pageContext.request.contextPath
}/images/new_023.jpg">
    <IMG src="${pageContext.request.contextPath
}/images/new_023.jpg" border=0></TD>
</TR>
</TBODY>
</TABLE>
<TABLE cellspacing=0 cellpadding=0 width="98%" border=0>
    <TBODY>
        <TR>
            <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_024.jpg"
                border=0></TD>
            <TD align=middle width="100%"
                background="${pageContext.request.contextPath
}/images/new_025.jpg" height=15></TD>
            <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_026.jpg"
                border=0></TD>
        </TR>
    </TBODY>
</TABLE>
</s:form>
</BODY>
</HTML>

```



### 1.3.1.4 第四步:修改编辑页面的提交路径

<DOCTYPE>

```
<s:form id="form1" name="form1" action="customer_update" namespace="/" |  
method="post" enctype="multipart/form-data" theme="simple">
```

### 1.3.1.5 编写 Action 中的 update 方法

```
/**  
 *  
 * Title: update  
 * Description: 修改客户的方法  
 * @return  
 * @throws IOException  
 */  
public String update() throws IOException {  
    //判断文件项是否已经选择,如果选择了,删除原有文件,上传新文件,如果没有选择,使用原有文件  
    即可  
  
    if(upload!=null) {  
        //已经选择了  
  
        //删除原有文件  
        String cust_image = customer.getCust_image();//从隐藏域中获取原有路径  
        if(cust_image!=null || "".equals(cust_image)) {  
            File file = new File(cust_image);  
            if (file != null) {  
                file.delete();  
            }  
        }  
        //文件上传:  
        //设置文件上传的路径  
        String path = "d:/upload";  
  
        // 一个目录下存放的相同文件名:文件名随机  
        String uuidFileName = UploadUtils.getUuidFileName(uploadFileName);  
        // 一个目录下存放的文件过多:目录分离  
        String realPath = UploadUtils.getPath(uuidFileName);  
  
        //创建目录  
        String url = path + realPath;  
        File file = new File(url);  
        if (!file.exists()) {  
            //创建多级目录  
            file.mkdirs();  
        }  
  
        //进行文件上传  
        File destFile = new File(url + "/" + uuidFileName);  
        FileUtils.copyFile(upload, destFile);  
  
        //设置文件上传的路径  
        customer.setCust_image(url + "/" + uuidFileName);  
    }  
    //修改客户  
    customerService.update(customer);  
}
```

```
        return "updateSuccess";
    }
}
```

- 配置跳转

```
<!-- 配置客户模块 -->
<action name="customer_*" class="customerAction" method="{1}">
    <result name="saveUI">/jsp/customer/add.jsp</result>
    <result name="findAll">/jsp/customer/list.jsp</result>
    <result name="editSuccess">/jsp/customer/edit.jsp</result>
    <result name="saveSuccess"
type="redirectAction">customer_findAll.action</result>
    <result name="updateSuccess"
type="redirectAction">customer_findAll.action</result>
    <result name="input">/jsp/customer/add.jsp</result>
    <result name="deleteSuccess"
type="redirectAction">customer_findAll.action</result>

    <interceptor-ref name="defaultStack">
        <param name="fileUpload.maximumSize">2097152</param>
        <param name="fileUpload.allowedExtensions">.jpg,.png</param>
    </interceptor-ref>
</action>
```

## 1.4 客户管理 - 条件查询客户

### 1.4.1 客户管理:条件查询

#### 1.4.1.1 在列表页面准备条件

```

<TR>
  <TD>客户名称: </TD>
  <TD><INPUT class=textBox id=sChannel2
    style="WIDTH: 80px" maxLength=50 name="custName"></TD>
  <TD>客户来源: </TD>
  <TD>
    <select id="cust_source" name="baseDictSource.dict_id">
      <option value="">-请选择-</option>
    </select>
  </TD>
  <TD>客户级别: </TD>
  <TD>
    <select id="cust_level" name="baseDictLevel.dict_id">
      <option value="">-请选择-</option>
    </select>
  </TD>
  <TD>所属行业: </TD>
  <TD>
    <select id="cust_industry" name="baseDictIndustry.dict_id">
      <option value="">-请选择-</option>
    </select>
  </TD>
  <TD><INPUT class=button id=sButton2 type=submit
    value=" 筛选 " name=sButton2></TD>
</TR>

```

#### 1.4.1.2 异步加载数据

```

<script type="text/javascript" src="${pageContext.request.contextPath
}/js/jquery-1.11.3.min.js"></script>
<script type="text/javascript">
  $(function(){
    // 页面加载函数就会执行:
    // 页面加载, 异步查询字典数据:
    // 加载客户来源
    $.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"002"},function(data){
      // 遍历json的数据:
      $(data).each(function(i,n){
        $("#cust_source").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
      });
    }, "json");
    $.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"006"},function(data){
      // 遍历json的数据:
      $(data).each(function(i,n){
        $("#cust_level").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
      });
    }, "json");
    $.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"001"},function(data){

```

```

// 遍历json的数据:
$(data).each(function(i,n){
    $("#cust_industry").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
    });
}, "json");
});
</script>

```

### 1.4.1.3 改写 Action 中的 findAll 方法

```

/**
 *
 * Title: findAll
 * Description: 客户管理:分页查询
 * @return
 */
public String findAll() {
    // 接收分页参数
    // (条件查询,带分页)
    DetachedCriteria detachedCriteria =
    DetachedCriteria.forClass(Customer.class);
    // 在web层设置条件
    if(customer.getCust_name() != null) {
        detachedCriteria.add(Restrictions.like("cust_name", "%" +
customer.getCust_name() + "%"));
    }

    if(customer.getBaseDictSource() != null) {
        if(customer.getBaseDictSource().getDict_id() != null &&
!"".equals(customer.getBaseDictSource().getDict_id())) {
            detachedCriteria.add(Restrictions.eq("baseDictSource.dict_id",
customer.getBaseDictSource().getDict_id()));
        }
    }

    if(customer.getBaseDictLevel() != null) {
        if(customer.getBaseDictLevel().getDict_id() != null &&
!"".equals(customer.getBaseDictLevel().getDict_id())) {
            detachedCriteria.add(Restrictions.eq("baseDictLevel.dict_id",
customer.getBaseDictLevel().getDict_id()));
        }
    }

    if(customer.getBaseDictIndustry() != null) {
        if(customer.getBaseDictIndustry().getDict_id() != null &&
!"".equals(customer.getBaseDictIndustry().getDict_id())) {

```

```

        detachedCriteria.add(Restrictions.eq("baseDictIndustry.dict_id",
customer.getBaseDictIndustry().getDict_id()));
    }
}

System.out.println(pageSize);
//调用业务层查询
PageBean<Customer> pageBean =
customerService.findByPage(detachedCriteria, currPage, pageSize);

//将分页对象保存到值栈
ActionContext.getContext().getValueStack().push(pageBean);
return "findAll";
}

```

### 1.3.1.6 在条件上回显数据

```

<TD>客户名称: </TD>
<TD><INPUT class=textBox id=sChannel2
style="WIDTH: 80px" maxLength=50 name="cust_name" value='<s:property value="model.cust_name"/>'></TD>
<TD>客户来源: </TD>

```

```

<script type="text/javascript">
$(function(){
    // 页面加载函数就会执行:
    // 页面加载, 异步查询字典数据:
    // 加载客户来源
$.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"002"},function(data){
    // 遍历json的数据:
$(data).each(function(i,n){
    $("#cust_source").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
});

    //回显数据
$("#cust_source
option[value='${model.baseDictSource.dict_id}']").prop("selected","selected");
},"json");
$.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"006"},function(data){
    // 遍历json的数据:
$(data).each(function(i,n){
    $("#cust_level").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
});

    //回显数据
$("#cust_level
option[value='${model.baseDictLevel.dict_id}']").prop("selected","selected");
},"json");
}

```

```

$.post("${pageContext.request.contextPath
}/baseDict_findByTypeCode.action",{dict_type_code:"001"},function(data){
    // 遍历json的数据:
    $(data).each(function(i,n){
        $("#cust_industry").append("<option
value='"+n.dict_id+"'>"+n.dict_item_name+"</option>");
    });

    //回显数据
    $("#cust_industry
option[value='${model.baseDictIndustry.dict_id}']").prop("selected","selected");
    }, "json");
});
</script>

```

## 1.5 联系人管理 - 查询列表

### 1.5.1 准备工作

#### 1.5.1.1 创建表

```

CREATE TABLE `cst_linkman` (
  `lkm_id` bigint(32) NOT NULL AUTO_INCREMENT COMMENT '联系人编号(主键)',
  `lkm_name` varchar(16) DEFAULT NULL COMMENT '联系人姓名',
  `lkm_cust_id` bigint(32) NOT NULL COMMENT '客户id',
  `lkm_gender` char(1) DEFAULT NULL COMMENT '联系人性别',
  `lkm_phone` varchar(16) DEFAULT NULL COMMENT '联系人办公电话',
  `lkm_mobile` varchar(16) DEFAULT NULL COMMENT '联系人手机',
  `lkm_email` varchar(64) DEFAULT NULL COMMENT '联系人邮箱',
  `lkm_qq` varchar(16) DEFAULT NULL COMMENT '联系人qq',
  `lkm_position` varchar(16) DEFAULT NULL COMMENT '联系人职位',
  `lkm_memo` varchar(512) DEFAULT NULL COMMENT '联系人备注',
  PRIMARY KEY (`lkm_id`),
  KEY `FK_cst_linkman_lkm_cust_id` (`lkm_cust_id`),
  CONSTRAINT `FK_cst_linkman_lkm_cust_id` FOREIGN KEY (`lkm_cust_id`) REFERENCES
`cst_customer` (`cust_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=3 DEFAULT CHARSET=utf8;

```

### 1.5.1.2 创建实体和映射

- 创建实体

```
package com.admiral.crm.domain;

/**
 *
 * @Description: 联系人实体
 * @author Admiral
 *
 * CREATE TABLE `cst_linkman` (
  `lkm_id` bigint(32) NOT NULL AUTO_INCREMENT COMMENT '联系人编号(主键)',
  `lkm_name` varchar(16) DEFAULT NULL COMMENT '联系人姓名',
  `lkm_cust_id` bigint(32) NOT NULL COMMENT '客户id',
  `lkm_gender` char(1) DEFAULT NULL COMMENT '联系人性别',
  `lkm_phone` varchar(16) DEFAULT NULL COMMENT '联系人办公电话',
  `lkm_mobile` varchar(16) DEFAULT NULL COMMENT '联系人手机',
  `lkm_email` varchar(64) DEFAULT NULL COMMENT '联系人邮箱',
  `lkm_qq` varchar(16) DEFAULT NULL COMMENT '联系人qq',
  `lkm_position` varchar(16) DEFAULT NULL COMMENT '联系人职位',
  `lkm_memo` varchar(512) DEFAULT NULL COMMENT '联系人备注',
  PRIMARY KEY (`lkm_id`),
  KEY `FK_cst_linkman_lkm_cust_id` (`lkm_cust_id`),
  CONSTRAINT `FK_cst_linkman_lkm_cust_id` FOREIGN KEY (`lkm_cust_id`) REFERENCES
`cst_customer` (`cust_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB AUTO_INCREMENT=3 DEFAULT CHARSET=utf8;
*/
public class LinkMan {
    private Long lkm_id;
    private String lkm_name;
    private String lkm_gender;
    private String lkm_phone;
    private String lkm_mobile;
    private String lkm_email;
    private String lkm_qq;
    private String lkm_position;
    private String lkm_memo;

    //方式客户的对象
    private Customer customer;

    public Long getLkm_id() {
        return lkm_id;
    }

    public void setLkm_id(Long lkm_id) {
        this.lkm_id = lkm_id;
    }

    public String getLkm_name() {
        return lkm_name;
    }

    public void setLkm_name(String lkm_name) {
        this.lkm_name = lkm_name;
    }
}
```

```
public String getLkm_gender() {  
    return lkm_gender;  
}  
  
public void setLkm_gender(String lkm_gender) {  
    this.lkm_gender = lkm_gender;  
}  
  
public String getLkm_phone() {  
    return lkm_phone;  
}  
  
public void setLkm_phone(String lkm_phone) {  
    this.lkm_phone = lkm_phone;  
}  
  
public String getLkm_mobile() {  
    return lkm_mobile;  
}  
  
public void setLkm_mobile(String lkm_mobile) {  
    this.lkm_mobile = lkm_mobile;  
}  
  
public String getLkm_email() {  
    return lkm_email;  
}  
  
public void setLkm_email(String lkm_email) {  
    this.lkm_email = lkm_email;  
}  
  
public String getLkm_qq() {  
    return lkm_qq;  
}  
  
public void setLkm_qq(String lkm_qq) {  
    this.lkm_qq = lkm_qq;  
}  
  
public String getLkm_position() {  
    return lkm_position;  
}  
  
public void setLkm_position(String lkm_position) {  
    this.lkm_position = lkm_position;  
}  
  
public String getLkm_memo() {  
    return lkm_memo;  
}  
  
public void setLkm_memo(String lkm_memo) {  
    this.lkm_memo = lkm_memo;  
}  
  
public Customer getCustomer() {
```



```

        return customer;
    }

    public void setCustomer(Customer customer) {
        this.customer = customer;
    }
}

```

- 创建映射

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE hibernate-mapping PUBLIC
    "-//Hibernate/Hibernate Mapping DTD 3.0//EN"
    "http://www.hibernate.org/dtd/hibernate-mapping-3.0.dtd">

<hibernate-mapping>
    <class name="com.admiral.crm.domain.LinkMan" table="cst_linkman">
        <id name="lkm_id" column="lkm_id">
            <generator class="native" />
        </id>

        <property name="lkm_name" column="lkm_name" />
        <property name="lkm_gender" column="lkm_gender" />
        <property name="lkm_phone" column="lkm_phone" />
        <property name="lkm_mobile" column="lkm_mobile" />
        <property name="lkm_email" column="lkm_email" />
        <property name="lkm_qq" column="lkm_qq" />
        <property name="lkm_position" column="lkm_position" />
        <property name="lkm_memo" column="lkm_memo" />

        <many-to-one name="customer" class="com.admiral.crm.domain.Customer"
column="lkm_cust_id" />
    </class>
</hibernate-mapping>

```

- 修改客户的实体

```

package com.admiral.crm.domain;

import java.util.HashSet;
import java.util.Set;

```

```
public class Customer {

    private Long cust_id;
    private String cust_name;
    // private String cust_source;
    // private String cust_industry;
    // private String cust_level;
    private String cust_phone;
    private String cust_mobile;
    private String cust_image; //文件上传的路径

    /*
     * 客户和字典是多对一关系,需要在多的一方放置一的一方的对象
     */
    private BaseDict baseDictSource;
    private BaseDict baseDictIndustry;
    private BaseDict baseDictLevel;

    /*
     * 放置联系人的集合
     */
    private Set<LinkMan> linkMans = new HashSet<LinkMan>();

    public BaseDict getBaseDictSource() {
        return baseDictSource;
    }

    public void setBaseDictSource(BaseDict baseDictSource) {
        this.baseDictSource = baseDictSource;
    }

    public BaseDict getBaseDictIndustry() {
        return baseDictIndustry;
    }

    public void setBaseDictIndustry(BaseDict baseDictIndustry) {
        this.baseDictIndustry = baseDictIndustry;
    }

    public BaseDict getBaseDictLevel() {
        return baseDictLevel;
    }

    public void setBaseDictLevel(BaseDict baseDictLevel) {
        this.baseDictLevel = baseDictLevel;
    }

    public Long getCust_id() {
        return cust_id;
    }

    public void setCust_id(Long cust_id) {
        this.cust_id = cust_id;
    }

    public String getCust_name() {
        return cust_name;
    }
}
```

```

    public void setCust_name(String cust_name) {
        this.cust_name = cust_name;
    }

    public String getCust_phone() {
        return cust_phone;
    }

    public void setCust_phone(String cust_phone) {
        this.cust_phone = cust_phone;
    }

    public String getCust_mobile() {
        return cust_mobile;
    }

    public void setCust_mobile(String cust_mobile) {
        this.cust_mobile = cust_mobile;
    }

    public String getCust_image() {
        return cust_image;
    }

    public void setCust_image(String cust_image) {
        this.cust_image = cust_image;
    }

    public Set<LinkMan> getLinkMans() {
        return linkMans;
    }

    public void setLinkMans(Set<LinkMan> linkMans) {
        this.linkMans = linkMans;
    }
}

```

- 修改客户的映射文件

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE hibernate-mapping PUBLIC
    "-//Hibernate/Hibernate Mapping DTD 3.0//EN"
    "http://www.hibernate.org/dtd/hibernate-mapping-3.0.dtd">

<hibernate-mapping>
    <class name="com.admiral.crm.domain.Customer" table="cst_customer">
        <!--建立类中的属性与表中的主键的映射关系 -->

```

```

<id name="cust_id" column="cust_id">
    <!--主键的生成策略 -->
    <generator class="native"></generator>
</id>

<!-- 建立类中的普通属性与表中的字段的映射 -->
<property name="cust_name" column="cust_name" />
<!-- <property name="cust_source" column="cust_source" />
<property name="cust_industry" column="cust_industry" />
<property name="cust_level" column="cust_level" /> -->
<property name="cust_phone" column="cust_phone" />
<property name="cust_mobile" column="cust_mobile" />
<property name="cust_image" column="cust_image" />

<!-- 配置多对一关系 -->
<many-to-one name="baseDictSource"
class="com.admiral.crm.domain.BaseDict" column="cust_source" />
<many-to-one name="baseDictIndustry"
class="com.admiral.crm.domain.BaseDict" column="cust_industry" />
<many-to-one name="baseDictLevel"
class="com.admiral.crm.domain.BaseDict" column="cust_level" />

<!-- 配置与联系人的关系映射 -->
<set name="linkMans">
    <key column="lkm_cust_id"/>
    <one-to-many class="com.admiral.crm.domain.LinkMan"/>
</set>

</class>
</hibernate-mapping>

```

- 在 Spring 中加入映射文件

```

<property name="mappingResources">
    <list>
        <value>com/admiral/crm/domain/User.hbm.xml</value>
        <value>com/admiral/crm/domain/Customer.hbm.xml</value>
        <value>com/admiral/crm/domain/BaseDict.hbm.xml</value>
        <value>com/admiral/crm/domain/LinkMan.hbm.xml</value>
    </list>
</property>
</beans>

```

### 1.5.1.3 创建相关类

- 联系人Dao的接口

```
package com.admiral.crm.dao;

/**
 *
 * @Description: 联系人Dao的接口
 * @author Admiral
 */
public interface LinkManDao {

}
```

- 联系人Dao的实现类

```
package com.admiral.crm.dao.impl;

import org.springframework.orm.hibernate5.support.HibernateDaoSupport;

import com.admiral.crm.dao.LinkManDao;

/**
 *
 * @Description: 联系人Dao的实现类
 * @author Admiral
 */
public class LinkManDaoImpl extends HibernateDaoSupport implements LinkManDao {

}
```

- 联系人Service的接口

```
package com.admiral.crm.service;

/**
 *
 * @Description: 联系人Service层的接口
 * @author Admiral
 */
public interface LinkManService {

}
```

- 联系人Service的实现类

```
package com.admiral.crm.service.impl;

import com.admiral.crm.dao.LinkManDao;
import com.admiral.crm.service.LinkManService;
```

```

/**
 *
 * @Description: 联系人Service层的实现类
 * @author Admiral
 */
public class LinkManServiceImpl implements LinkManService {

    //注入 Dao
    private LinkManDao linkManDao;

    public void setLinkManDao(LinkManDao linkManDao) {
        this.linkManDao = linkManDao;
    }

}

```

- 联系人的Action

```

package com.admiral.crm.web.action;

import com.admiral.crm.domain.LinkMan;
import com.admiral.crm.service.LinkManService;
import com.opensymphony.xwork2.ActionSupport;
import com.opensymphony.xwork2.ModelDriven;

public class LinkManAction extends ActionSupport implements ModelDriven<LinkMan>
{

    //模型驱动使用的对象
    private LinkMan linkMan = new LinkMan();
    @Override
    public LinkMan getModel() {
        return linkMan;
    }

    //注入 Service
    private LinkManService linkManService;

    public void setLinkManService(LinkManService linkManService) {
        this.linkManService = linkManService;
    }

}

```

### 1.5.1.4 将相关类交给 Spring 管理

```
<!-- ===== LinkMan 模块的相关配置 ===== -->
<bean id="linkManAction" class="com.admiral.crm.web.action.LinkManAction">
    <property name="linkManService" ref="linkManService" />
</bean>
<bean id="linkManService"
class="com.admiral.crm.service.impl.LinkManServiceImpl">
    <property name="linkManDao" ref="linkManDao" />
</bean>
<bean id="linkManDao" class="com.admiral.crm.dao.impl.LinkManDaoImpl">
    <property name="sessionFactory" ref="sessionFactory" />
</bean>
```

- struts.xml

```
<!-- 配置联系人模块 -->
<action name="linkMan_*" class="linkManAction" method="{1}">

</action>
```

## 1.5.2 查询联系人的列表

### 1.5.2.1 修改 menu.jsp 的链接

```
<TR>
<TD class=menuSmall><A class=style2 href="{pageContext.request.contextPath}/LinkMan_findAll.action"
target=main>- 联系人列表</A></TD>
</TR>
```

### 1.5.2.2 编写 Action 的 findAll 方法

```
package com.admiral.crm.web.action;

import org.hibernate.criterion.DetachedCriteria;

import com.admiral.crm.domain.LinkMan;
import com.admiral.crm.domain.PageBean;
import com.admiral.crm.service.LinkManService;
import com.opensymphony.xwork2.ActionContext;
import com.opensymphony.xwork2.ActionSupport;
import com.opensymphony.xwork2.ModelDriven;

public class LinkManAction extends ActionSupport implements ModelDriven<LinkMan>
{

    //模型驱动使用的对象
    private LinkMan linkMan = new LinkMan();
```

```

@Override
public LinkMan getModel() {
    return linkMan;
}

//注入 Service
private LinkManService linkManService;

public void setLinkManService(LinkManService linkManService) {
    this.linkManService = linkManService;
}

private Integer currPage = 1;
private Integer pageSize = 3;

public void setCurrPage(Integer currPage) {
    if(currPage==null) {
        currPage = 1;
    }
    this.currPage = currPage;
}

public void setPageSize(Integer pageSize) {
    if (pageSize == null) {
        pageSize = 3;
    }
    this.pageSize = pageSize;
}

/**
 *
 * Title: findAll
 * Description: 待条件分页查询联系人
 * @return
 */
public String findAll() {
    //创建离线条件查询
    DetachedCriteria detachedCriteria =
    DetachedCriteria.forClass(LinkMan.class);
    //设置条件

    //调用业务层
    PageBean<LinkMan> pageBean =
    linkManService.findAll(detachedCriteria,currPage,pageSize);
    //将 pageBean 压入值栈中
    ActionContext.getContext().getValueStack().push(pageBean);
    return "findAll";
}
}

```



### 1.5.2.3 编写 Service

```
package com.admiral.crm.service.impl;

import java.util.List;

import org.hibernate.criterion.DetachedCriteria;

import com.admiral.crm.dao.LinkManDao;
import com.admiral.crm.domain.LinkMan;
import com.admiral.crm.domain.PageBean;
import com.admiral.crm.service.LinkManService;

/**
 *
 * @Description: 联系人Service层的实现类
 * @author Admiral
 */
public class LinkManServiceImpl implements LinkManService {

    //注入 Dao
    private LinkManDao linkManDao;

    public void setLinkManDao(LinkManDao linkManDao) {
        this.linkManDao = linkManDao;
    }

    @Override
    public PageBean<LinkMan> findAll(DetachedCriteria detachedCriteria, Integer
currPage, Integer pageSize) {
        PageBean<LinkMan> pageBean = new PageBean<LinkMan>();
        //设置当前页
        pageBean.setCurrPage(currPage);
        //设置每页的记录数
        pageBean.setPageSize(pageSize);

        //设置总记录数
        Integer totalCount = linkManDao.findCount(detachedCriteria);
        pageBean.setTotalCount(totalCount);

        //设置总页数
        Double num = Math.ceil(totalCount.doubleValue()/pageSize);
        pageBean.setTotalPage(num.intValue());

        //设置每页显示的数据
        Integer begin = (currPage-1) * pageSize;
        List<LinkMan> linkMans =
linkManDao.findByPage(detachedCriteria,begin,pageSize);
        pageBean.setList(linkMans);

        return pageBean;
    }
}
```

### 1.5.2.4 编写 Dao

```
package com.admiral.crm.dao.impl;

import java.util.List;

import org.hibernate.criterion.DetachedCriteria;
import org.hibernate.criterion.Projections;
import org.springframework.orm.hibernate5.support.HibernateDaoSupport;

import com.admiral.crm.dao.LinkManDao;
import com.admiral.crm.domain.LinkMan;

/**
 *
 * @Description: 联系人Dao的实现类
 * @author Admiral
 */
public class LinkManDaoImpl extends HibernateDaoSupport implements LinkManDao {

    @Override
    public Integer findCount(DetachedCriteria detachedCriteria) {
        detachedCriteria.setProjection(Projections.rowCount());
        List<Long> list = (List<Long>)
this.getHibernateTemplate().findByCriteria(detachedCriteria);
        if(list!=null && list.size()>0) {
            return list.get(0).intValue();
        }
        return null;
    }

    @Override
    public List<LinkMan> findByPage(DetachedCriteria detachedCriteria, Integer
begin, Integer pageSize) {
        detachedCriteria.setProjection(null);
        return (List<LinkMan>)
this.getHibernateTemplate().findByCriteria(detachedCriteria, begin, pageSize);
    }

}
```

## 1.5.3 查询联系人前台

### 1.5.3.1 配置 Action 的跳转

```
<!-- 配置联系人模块 -->
<action name="linkMan_*" class="linkManAction" method="{1}">
    <result name="findAll">/jsp/linkman/list.jsp</result>
</action>
```

### 1.5.3.2 修改 list.jsp 页面

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib uri="/struts-tags" prefix="s"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
<TITLE>联系人列表</TITLE>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<LINK href="${pageContext.request.contextPath }/css/Style.css" type="text/css"
rel="stylesheet">
<LINK href="${pageContext.request.contextPath }/css/Manage.css" type="text/css"
rel="stylesheet">
<script type="text/javascript" src="${pageContext.request.contextPath
}/js/jquery-1.4.4.min.js"></script>
<SCRIPT language="javascript">
    function to_page(page){
        if(page){
            $("#page").val(page);
        }
        document.customerForm.submit();
    }
</SCRIPT>

<META content="MSHTML 6.00.2900.3492" name="GENERATOR">
</HEAD>
<BODY>
    <FORM id="customerForm" name="customerForm"
        action="${pageContext.request.contextPath }/linkMan_findAll.action"
        method="post">

        <TABLE cellSpacing=0 cellPadding=0 width="98%" border=0>
            <TBODY>
                <TR>
                    <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_019.jpg"
                        border=0></TD>
                    <TD width="100%"
background="${pageContext.request.contextPath }/images/new_020.jpg"
                        height=20></TD>
                    <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_021.jpg"
                        border=0></TD>
                </TR>
            </TBODY>
        </TABLE>
        <TABLE cellSpacing=0 cellPadding=0 width="98%" border=0>
            <TBODY>
                <TR>
                    <TD width=15 background="${pageContext.request.contextPath
}/images/new_022.jpg"><IMG
                        src="${pageContext.request.contextPath
}/images/new_022.jpg" border=0></TD>
                    <TD valign=top width="100%" bgColor=#ffffff>
```



[illegible]

```
[<A  
href="javascript:to_page(<s:property value="1" />)">首页</A>]  
[<A  
href="javascript:to_page(<s:property value="currPage-1" />)">前一页</A>]  
</s:if>&nbsp;&nbsp;&nbsp;  
<B>  
  
<s:iterator var="i"  
begin="1" end="totalPage">  
  
<s:if test="#i ==  
currPage">  
  
<s:property  
value="#i"/>  
  
</s:if>  
<s:else>  
<a  
href="javascript:to_page(<s:property value="#i" />)"><s:property value="#i"/>  
</a>  
  
</s:else>  
</s:iterator>  
  
</B>&nbsp;&nbsp;&nbsp;  
<s:if test="currPage !=  
totalPage">  
  
[<A  
href="javascript:to_page(<s:property value="currPage+1" />)">后一页</A>]  
[<A  
href="javascript:to_page(<s:property value="totalPage" />)">尾页</A>]  
</s:if>  
到  
<input type="text" size="3"  
id="page" name="currPage" />  
页  
  
<input type="button" value="Go"  
onclick="to_page()"/>  
  
</DIV>  
</SPAN></TD>  
</TR>  
</TBODY>  
</TABLE>  
</TD>  
<TD width=15 background="{pageContext.request.contextPath  
}/images/new_023.jpg"><IMG  
src="{pageContext.request.contextPath  
}/images/new_023.jpg" border=0></TD>  
</TR>  
</TBODY>  
</TABLE>  
<TABLE cellspacing=0 cellpadding=0 width="98%" border=0>  
<TBODY>  
<TR>  
<TD width=15><IMG src="{pageContext.request.contextPath  
}/images/new_024.jpg"  
border=0></TD>  
<TD align=middle width="100%"  
background="{pageContext.request.contextPath  
}/images/new_025.jpg" height=15></TD>
```

```
        <TD width=15><IMG src="${pageContext.request.contextPath
}/images/new_026.jpg"
        border=0></TD>
    </TR>
</TBODY>
</TABLE>
</FORM>
</BODY>
</HTML>
```