# CRM - 服务管理与统计报表

## 学习目标



## 服务管理表结构设计

这里涉及表为t_customer_serve 结构如下

| t_customer_serve | 客户服务表 | | | |
|---|---|---|---|---|
| | 字段 | 字段类型 | 字段限制 | 字段描述 |
| 主键 | id | int(11) | 自增 | id主键 |
| | serve_type | varchar(30) | 可空 | 服务类型 |
| | overview | varchar(500) | 可空 | 概要 |
| | customer | varchar(30) | 可空 | 客户 |
| | state | varchar(20) | 可空 | 服务状态 |
| | service_request | varchar(500) | 可空 | 服务请求 |
| | create_people | varchar(100) | 可空 | 服务创建人 |
| | assigner | varchar(100) | 可空 | 服务分配人 |
| | assign_time | datetime | 可空 | 分配时间 |
| | service_proce | varchar(500) | 可空 | 服务处理 |
| | service_proce_people | varchar(20) | 可空 | 服务处理人 |
| | service_proce_time | datetime | 可空 | 服务处理时间 |
| | service_proce_result | varchar(500) | 可空 | 处理结果 |
| | myd | varchar(50) | 可空 | 满意度 |
| | is_valid | int(4) | 可空 | 是否有效 |
| | update_date | datetime | 可空 | 更新时间 |
| | create_date | datetime | 可空 | 创建时间 |

## 服务管理模块实现

CRM系统添加客服系统便于企业更好的服务与客户需要，及时满足客户对于企业信息，产品相关信息的了解，同时对于产品售后也起到好的保障。这里在实现服务管理时设置服务记录的创建，分配，处理，反馈与归档五个子模块。

## 服务创建

### 服务创建页面效果

## 服务管理后端实现

### 服务列表展示核心实现

- CustomerServeMapper.xml

```xml
<select id="selectByParams"
parameterType="com.xxxx.crm.query.CustomerServeQuery"
resultType="com.xxxx.crm.vo.CustomerServe">
    select c.*,d.data_dic_value as dic_value
    from t_customer_serve c left join t_datadic d on c.serve_type = d.id
  <where>
      c.is_valid=1
      <if test="null !=customer and customer!=''">
          and customer like concat('%',#{customer},'%')
      </if>
      <if test="null !=state and state!=''">
        and state =#{state}
      </if>
      <if test="null !=type and type!=''">
        and serve_type = #{type}
      </if>
      <if test="null !=assigner">
        and assigner = #{assigner}
```

```
        </if>
      </where>
</select>
```

- CustomerServeController.java

```java
@Controller
@RequestMapping("customer_serve")
public class CustomerServeController extends BaseController {

    @Resource
    private CustomerServeService customerServeService;

    // 服务管理页面转发方法
    @RequestMapping("index/{type}")
    public String index(@PathVariable Integer type){
        if(type==1){
            return "customerServe/customer_serve";
        }else if(type==2){
            return "customerServe/customer_serve_assign";
        }else if(type==3){
            return "customerServe/customer_serve_proce";
        }else if(type==4){
            return "customerServe/customer_serve_feed_back";
        }else if(type==5){
            return "customerServe/customer_serve_archive";
        }else{
            return "";
        }
    }


    // 服务信息列表展示
    @RequestMapping("list")
    @ResponseBody
    public Map<String,Object> queryCustomerServeByParams(Integer flag,
HttpServletRequest request, CustomerServeQuery customerServeQuery){
        if(null !=flag && flag==1){

customerServeQuery.setAssigner(LoginUserUtil.releaseUserIdFromCookie(request));
        }
        return  customerServeService.queryByParamsForTable(customerServeQuery);
    }

    // 服务添加页面转发
    @RequestMapping("addCustomerServePage")
    public String addCustomerServePage(){
        return "customerServe/customer_serve_add";
    }

    //服务分配页面转发
    @RequestMapping("addCustomerServeAssignPage")
    public String addCustomerServeAssignPage(Integer id, Model model){

model.addAttribute("customerServe",customerServeService.selectByPrimaryKey(id))
;
        return "customerServe/customer_serve_assign_add";
```

```java
    // 服务反馈页面转发
    @RequestMapping("addCustomerServeBackPage")
    public String addCustomerServeBackPage(Integer id, Model model){

 model.addAttribute("customerServe",customerServeService.selectByPrimaryKey(id))
;
        return "customerServe/customer_serve_feed_back_add";
    }

    // 服务处理页面转发
    @RequestMapping("addCustomerServeProcePage")
    public String addCustomerServeProcePage(Integer id, Model model){

 model.addAttribute("customerServe",customerServeService.selectByPrimaryKey(id))
;
        return "customerServe/customer_serve_proce_add";
    }

    //服务添加 分配  处理 归档处理
    @RequestMapping("saveOrUpdateCustomerServe")
    @ResponseBody
    public ResultInfo saveOrUpdateCustomerServe(CustomerServe customerServe){
        customerServeService.saveOrUpdateCustomerServe(customerServe);
        return success("操作成功");
    }
```

**服务记录后端核心实现**

这里对于服务管理服务的创建，分配，处理与反馈后端代码实现放在同一个方法中进行处理，同时方便对于服务状态值统一处理，这里定义 CustomerServeStatus 枚举类来实现。

- 服务状态枚举类定义

```java
/**
 * 客户服务状态枚举类
 */
public enum  CustomerServeStatus {
    // 创建
    CREATED("fw_001"),
    // 分配
    ASSIGNED("fw_002"),
    // 处理
    PROCED("fw_003"),
    // 反馈
    FEED_BACK("fw_004"),
    // 归档
    ARCHIVED("fw_005");

    private String state;

    CustomerServeStatus(String state) {
        this.state = state;
    }

    public String getState() {
```

```java
        return state;
    }
}
```

- CustomerServeService.java

```java
@Transactional(propagation = Propagation.REQUIRED)
public void saveOrUpdateCustomerServe(CustomerServe customerServe){
    if(null == customerServe.getId()){
        /**   服务添加操作
         * 1.参数校验
         *      客户名    非空
         *      客户类型   非空
         * 2.添加默认值
         *     state    设置状态值
         *     isValid   createDate updateDate
         * 3.执行添加  判断结果
         */
        AssertUtil.isTrue(StringUtils.isBlank(customerServe.getCustomer()),"请指
定客户!");
        AssertUtil.isTrue(null
==customerMapper.queryCustomerByName(customerServe.getCustomer()),"当前客户暂不存
在!");
        AssertUtil.isTrue(StringUtils.isBlank(customerServe.getServeType()),"请指
定服务类型!");
        customerServe.setIsValid(1);
        customerServe.setCreateDate(new Date());
        customerServe.setUpdateDate(new Date());
        customerServe.setState(CustomerServeStatus.CREATED.getState());
        AssertUtil.isTrue(insertSelective(customerServe)<1,"服务记录添加失败!");
    }else{
        /**
         * 分配    处理    反馈
         */
        CustomerServe temp =  selectByPrimaryKey(customerServe.getId());
        AssertUtil.isTrue(null == temp,"待处理的服务记录不存在!");

    if(customerServe.getState().equals(CustomerServeStatus.ASSIGNED.getState())){
            // 服务分配
            AssertUtil.isTrue(StringUtils.isBlank(customerServe.getAssigner())||
                    (null ==
userMapper.selectByPrimaryKey(Integer.parseInt(customerServe.getAssigner()))),"
待分配用户不存在");
            customerServe.setAssignTime(new Date());
            customerServe.setUpdateDate(new Date());
            AssertUtil.isTrue(updateByPrimaryKeySelective(customerServe)<1,"服务
分配失败!");
        }
    if(customerServe.getState().equals(CustomerServeStatus.PROCED.getState())){
            // 服务处理

    AssertUtil.isTrue(StringUtils.isBlank(customerServe.getServiceProce()),"请指定处
理内容!");
            customerServe.setServiceProceTime(new Date());
            customerServe.setUpdateDate(new Date());
            AssertUtil.isTrue(updateByPrimaryKeySelective(customerServe)<1,"服务
处理失败!");
```

```java
}if(customerServe.getState().equals(CustomerServeStatus.FEED_BACK.getState())){
            // 服务处理

 AssertUtil.isTrue(StringUtils.isBlank(customerServe.getServiceProceResult()),"
请指定反馈内容!");
            AssertUtil.isTrue(StringUtils.isBlank(customerServe.getMyd()),"请指定
反馈满意度!");
            customerServe.setUpdateDate(new Date());
            customerServe.setState(CustomerServeStatus.ARCHIVED.getState());
            AssertUtil.isTrue(updateByPrimaryKeySelective(customerServe)<1,"服务
反馈失败!");
        }
    }
}
```

## 服务创建前端实现

### 服务列表主页面实现

- customer_serve.ftl

views/customerServe 目录下新建customer_serve.ftl 模板文件。

```html
<!DOCTYPE html>
<html>
<head>
    <title>服务创建</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">

<form class="layui-form" >
    <blockquote class="layui-elem-quote quoteBox">
        <form class="layui-form">
            <div class="layui-inline">
                <div class="layui-input-inline">
                    <input type="text" name="customer"
                            class="layui-input
        searchVal" placeholder="客户" />
                </div>
                <div class="layui-input-inline">
                    <select name="type"  id="type">
                        <option value="" >请选择</option>
                        <option value="6">咨询</option>
                        <option value="7" >投诉</option>
                        <option value="8" >建议</option>
                    </select>
                </div>

                <a class="layui-btn search_btn" data-type="reload"><i
                        class="layui-icon">&#xe615;</i> 搜索</a>
            </div>
        </form>
    </blockquote>
```

```html
<table id="customerServeList" class="layui-table"  lay-
filter="customerServes"></table>


    <script type="text/html" id="toolbarDemo">
        <a class="layui-btn layui-btn-normal addNews_btn" lay-event="add">
            <i class="layui-icon">&#xe608;</i>
            添加
        </a>
    </script>

</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.js"></script>

</body>
</html>
```

- customer.serve.js

js/customerServe 目录下新建customer.serve.js 文件，实现记录服务记录列表展示

```javascript
layui.use(['table','layer',"form"],function(){
    var layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        table = layui.table;

    //服务列表展示
    table.render({
        elem: '#customerServeList',
        url : ctx+'/customer_serve/list?state=fw_001',
        cellMinWidth : 95,
        page : true,
        height : "full-125",
        limits : [10,15,20,25],
        limit : 10,
        toolbar: "#toolbarDemo",
        id : "customerServeListTable",
        cols : [[
            {type: "checkbox", fixed:"left", width:50},
            {field: "id", title:'编号',fixed:"true", width:80},
            {field: 'customer', title: '客户名', minWidth:50, align:"center"},
            {field: 'dicValue', title: '服务类型', minWidth:100, align:'center'},
            {field: 'overview', title: '概要信息', align:'center'},
            {field: 'createPeople', title: '创建人', minWidth:100,
align:'center'},
            {field: 'createDate', title: '创建时间',
align:'center',minWidth:150},
            {field: 'updateDate', title: '更新时间',
align:'center',minWidth:150},
        ]]
    });

    // 多条件搜索
    $(".search_btn").on("click",function(){
        table.reload("customerServeListTable",{
            page: {
```

```
            curr: 1 //重新从第 1 页开始
        },
        where: {
            customer: $("input[name='customer']").val(),  //客户名
            type: $("#type").val()  //服务类型
        }
    })
});
});
```

**服务创建前端代码**

这里添加服务创建点击事件，修改 customer.serve.js

```
//头工具栏事件
table.on('toolbar(customerServes)', function(obj){
    switch(obj.event){
        case "add":
            openAddCustomerServeDialog();
            break;
    };
});


// 打开服务创建页面
function openAddCustomerServeDialog(){
    var url =  ctx+"/customer_serve/addCustomerServePage";
    layui.layer.open({
        title : "服务管理-服务创建",
        type : 2,
        area:["700px","420px"],
        maxmin:true,
        content : url
    });
}
```

- customer_serve_add.ftl

views/customerServe 目录下添加 customer_serve_add.ftl 文件准备服务添加表单

```
<!DOCTYPE html>
<html>
<head>
    <#include "../common.ftl">
</head>
<body class="childrenBody">
<form class="layui-form" style="width:80%;">
    <input name="state" type="hidden" value="fw_001"/>
    <div class="layui-form-item layui-row">
        <div class="layui-col-xs6">
            <label class="layui-form-label">服务类型</label>
            <div class="layui-input-block">
                <select name="serveType"  id="serveType">
                    <option value="" >请选择</option>
                    <option value="6">咨询</option>
                    <option value="7" >投诉</option>
                    <option value="8" >建议</option>
```

```html
                    </select>
                </div>
            </div>
            <div class="layui-col-xs6">
                <label class="layui-form-label">客户</label>
                <div class="layui-input-block">
                    <input type="text" class="layui-input"
                        lay-verify="required" name="customer" id="customer"
placeholder="请输入客户姓名">
                </div>
            </div>
        </div>

        <div class="layui-form-item layui-row">
            <label class="layui-form-label">服务内容</label>
            <div class="layui-input-block">
                <textarea placeholder="请输入服务内容" name="serviceRequest"
class="layui-textarea"></textarea>
            </div>
        </div>

        <div class="layui-form-item layui-row">
            <label class="layui-form-label">服务概要</label>
            <div class="layui-input-block">
                <textarea placeholder="请输入服务信息" name="overview" class="layui-
textarea"></textarea>
            </div>
        </div>
    </div>

    <br/>
    <div class="layui-form-item layui-row layui-col-xs12">
        <div class="layui-input-block">
            <button class="layui-btn layui-btn-lg" lay-submit=""
                lay-filter="addOrUpdateCustomerServe">确认
            </button>
            <button class="layui-btn layui-btn-lg layui-btn-normal">取消</button>
        </div>
    </div>
</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.add.js"></script>
</body>
</html>
```

- customer.serve.add.js

js/customerServe 目录下添加 customer.serve.add.js 实现服务记录添加操作

```javascript
layui.use(['form', 'layer','jquery_cookie'], function () {
    var form = layui.form,
        layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        $ = layui.jquery_cookie($);

    form.on("submit(addOrUpdateCustomerServe)", function (data) {
        // 额外设置用户名
```

```
        data.field.createPeople=$.cookie("trueName");
        var index = top.layer.msg('数据提交中，请稍候', {icon: 16, time: false,
shade: 0.8});
        //弹出loading
        $.post(ctx + "/customer_serve/saveOrUpdateCustomerServe", data.field,
function (res) {
            if (res.code == 200) {
                setTimeout(function () {
                    top.layer.close(index);
                    top.layer.msg("操作成功！");
                    layer.closeAll("iframe");
                    //刷新父页面
                    parent.location.reload();
                }, 500);
            } else {
                layer.msg(
                    res.msg, {
                        icon: 5
                    }
                );
            }
        });
        return false;
    });
});
```

## 服务分配

服务分配实现将添加的服务记录分配该指定类型人员进行下一步处理操作，这里对于服务分配后端代码在前面已实现，这里主要添加前端视图与核心js。

## 待分配服务数据展示

- customer_serve_assign.ftl

views/customerServe 目录下添加 customer_serve_assign.ftl 模板文件，展示要分配的服务记录

```html
<!DOCTYPE html>
<html>
<head>
    <title>服务创建</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">

<form class="layui-form" >
    <blockquote class="layui-elem-quote quoteBox">
        <form class="layui-form">
            <div class="layui-inline">
                <div class="layui-input-inline">
                    <input type="text" name="customer"
                            class="layui-input
            searchVal" placeholder="客户" />
                </div>
                <div class="layui-input-inline">
                    <select name="type"  id="type">
                        <option value="" >请选择</option>
                        <option value="6">咨询</option>
                        <option value="7" >投诉</option>
                        <option value="8" >建议</option>
                    </select>
                </div>

                <a class="layui-btn search_btn" data-type="reload"><i
                        class="layui-icon">&#xe615;</i> 搜索</a>
            </div>
        </form>
    </blockquote>
```

```html
<table id="customerServeList" class="layui-table"  lay-
filter="customerServes"></table>


    <script type="text/html" id="toolbarDemo">

    </script>

    <script id="customerServeListBar" type="text/html">
        <a href="javascript:;" class="layui-btn layui-btn-normal layui-btn-xs"
lay-event="assign">分配</a>
    </script>

</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.assign.js"></script>

</body>
</html>
```

- customer.serve.assign.js

js/customerServe 目录下添加 customer.serve.assign.js 文件初始化服务分配表格数据

```javascript
layui.use(['table','layer',"form"],function(){
    var layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        table = layui.table;

    //服务列表展示
    table.render({
        elem: '#customerServeList',
        url : ctx+'/customer_serve/list?state=fw_001',
        cellMinWidth : 95,
        page : true,
        height : "full-125",
        limits : [10,15,20,25],
        limit : 10,
        toolbar: "#toolbarDemo",
        id : "customerServeListTable",
        cols : [[
            {type: "checkbox", fixed:"left", width:50},
            {field: "id", title:'编号',fixed:"true", width:80},
            {field: 'customer', title: '客户名', minWidth:50, align:"center"},
            {field: 'dicValue', title: '服务类型', minWidth:100, align:'center'},
            {field: 'overview', title: '概要信息', align:'center'},
            {field: 'createPeople', title: '创建人', minWidth:100,
align:'center'},
            {field: 'assignTime', title: '分配时间', minWidth:50,
align:"center"},
            {field: 'assigner', title: '分配人', minWidth:100, align:'center'},
            {field: 'createDate', title: '创建时间',
align:'center',minWidth:150},
            {field: 'updateDate', title: '更新时间',
align:'center',minWidth:150},
            {title: '操作', minWidth:150,
templet:'#customerServeListBar',fixed:"right",align:"center"}
```

```
        ]]
    });

    // 多条件搜索
    $(".search_btn").on("click",function(){
        table.reload("customerServeListTable",{
            page: {
                curr: 1 //重新从第 1 页开始
            },
            where: {
                customer: $("input[name='customer']").val(),  //客户名
                type: $("#type").val()  //服务类型
            }
        })
    });

});
```

修改 customer.serve.assign.js 添加点击分配事件，实现分配操作

```
table.on("tool(customerServes)", function(obj){
    var layEvent = obj.event;
    if(layEvent === "assign") {
        openCustomerAssignDialog(obj.data.id);
    }
});


function openCustomerAssignDialog(id){
    var url  = ctx+"/customer_serve/addCustomerServeAssignPage?id="+id;
    layui.layer.open({
        title : "服务管理-服务分配",
        type : 2,
        area:["700px","420px"],
        maxmin:true,
        content : url
    });
}
```

## 服务分配表单处理

- customer_serve_assign_add.ftl

views/customerServe 目录下添加 customer_serve_assign_add.ftl 模板文件，执行分配操作

```
<!DOCTYPE html>
<html>
<head>
    <#include "../common.ftl">
</head>
<body class="childrenBody">
<form class="layui-form" style="width:80%;">
    <input name="id" type="hidden" value="${customerServe.id}"/>
    <input name="state" type="hidden" value="fw_002"/>

    <div class="layui-form-item layui-row">
        <div class="layui-col-xs6">
```

```html
                <label class="layui-form-label">服务类型</label>
                <div class="layui-input-block">
                    <select name="serveType"  id="serveType"  disabled="disabled">
                        <option value="" >请选择</option>
                        <option value="6" <#if
customerServe.serveType==6">selected="selected"</#if>>咨询</option>
                        <option value="7"  <#if
customerServe.serveType==7">selected="selected"</#if> >投诉</option>
                        <option value="8"  <#if
customerServe.serveType==8">selected="selected"</#if>>建议</option>
                    </select>
                </div>
            </div>
            <div class="layui-col-xs6">
                <label class="layui-form-label">客户</label>
                <div class="layui-input-block">
                    <input type="text" class="layui-input"
                            lay-verify="required" name="customer" id="customer"
 value="${(customerServe.customer)!}" readonly="readonly">
                </div>
            </div>
        </div>

        <div class="layui-form-item layui-row">
            <label class="layui-form-label">服务内容</label>
            <div class="layui-input-block">
                <textarea  name="serviceRequest" class="layui-textarea"
readonly="readonly">${(customerServe.serviceRequest)!}</textarea>
            </div>
        </div>

        <div class="layui-form-item layui-row">
            <label class="layui-form-label">服务概要</label>
            <div class="layui-input-block">
                <textarea  name="overview" class="layui-textarea"
readonly="readonly">${(customerServe.overview)!}</textarea>
            </div>
        </div>

        <div class="layui-form-item layui-row">
            <label class="layui-form-label">指派给</label>
            <div class="layui-input-block">
                <select name="assigner"  id="assigner" >
                    <option value="">请选择</option>
                </select>
            </div>
        </div>

    </div>


    <br/>
    <div class="layui-form-item layui-row layui-col-xs12">
        <div class="layui-input-block">
            <button class="layui-btn layui-btn-lg" lay-submit=""
                    lay-filter="addOrUpdateCustomerServe">确认
            </button>
            <button class="layui-btn layui-btn-lg layui-btn-normal">取消</button>
```

```
        </div>
      </div>
</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.assign.add.js"></script>
</body>
</html>
```

- customer.serve.assign.add.js

js/customerServe 目录下添加 customer.serve.assign.add.js 文件，执行分配操作

```javascript
layui.use(['form', 'layer'], function () {
    var form = layui.form,
        layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery;

    // 初始化分配用户下拉框
    $.post(ctx+"/user/queryAllCustomerManager",function (res) {
        for (var i = 0; i < res.length; i++) {
            $("#assigner").append("<option value=\"" + res[i].id + "\">" +
res[i].name + "</option>");
        }
        //重新渲染
        layui.form.render("select");
    });

    form.on("submit(addOrUpdateCustomerServe)", function (data) {
        var index = top.layer.msg('数据提交中，请稍候', {icon: 16, time: false,
shade: 0.8});
        //弹出loading
        $.post(ctx + "/customer_serve/saveOrUpdateCustomerServe", data.field,
function (res) {
            if (res.code == 200) {
                setTimeout(function () {
                    top.layer.close(index);
                    top.layer.msg("操作成功！");
                    layer.closeAll("iframe");
                    //刷新父页面
                    parent.location.reload();
                }, 500);
            } else {
                layer.msg(
                    res.msg, {
                        icon: 5
                    }
                );
            }
        });
        return false;
    });
});
```

## 服务处理

分配后，用户登录到 CRM 系统点击服务处理进入处理处理页面执行处理操作



## 待处理服务记录列表信息展示

- customer_serve_proce.ftl

views/customerServe 目录下添加 customer_serve_proce.ftl 文件展示待处理服务列表。

```html
<!DOCTYPE html>
<html>
<head>
    <title>服务创建</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">

<form class="layui-form" >
    <blockquote class="layui-elem-quote quoteBox">
        <form class="layui-form">
            <div class="layui-inline">
                <div class="layui-input-inline">
                    <input type="text" name="customer"
                            class="layui-input"
                    searchVal" placeholder="客户" />
```

```html
                </div>
                <div class="layui-input-inline">
                    <select name="type"  id="type">
                        <option value="" >请选择</option>
                        <option value="6" >咨询</option>
                        <option value="7" >投诉</option>
                        <option value="8" >建议</option>
                    </select>
                </div>

                <a class="layui-btn search_btn" data-type="reload"><i
                        class="layui-icon">&#xe615;</i> 搜索</a>
            </div>
        </form>
    </blockquote>
    <table id="customerServeList" class="layui-table"  lay-
filter="customerServes"></table>


    <script type="text/html" id="toolbarDemo">
    </script>

    <script id="customerServeListBar" type="text/html">
        <a href="javascript:;" class="layui-btn layui-btn-normal layui-btn-xs"
lay-event="assign">处理</a>
    </script>

</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.proce.js"></script>

</body>
</html>
```

- customer.serve.proce.js

js/customerServe 目录下添加 customer.serve.proce.js 文件初始化待处理服务记录表格数据

```javascript
layui.use(['table','layer',"form"],function(){
    var layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        table = layui.table;

    //服务列表展示
    table.render({
        elem: '#customerServeList',
        url : ctx+'/customer_serve/list?state=fw_002',
        cellMinWidth : 95,
        page : true,
        height : "full-125",
        limits : [10,15,20,25],
        limit : 10,
        toolbar: "#toolbarDemo",
        id : "customerServeListTable",
        cols : [[
            {type: "checkbox", fixed:"left", width:50},
            {field: "id", title:'编号',fixed:"true", width:80},
```

```javascript
            {field: 'customer', title: '客户名', minWidth:50, align:"center"},
            {field: 'dicValue', title: '服务类型', minWidth:100, align:'center'},
            {field: 'overview', title: '概要信息', align:'center'},
            {field: 'createPeople', title: '创建人', minWidth:100,
align:'center'},
            {field: 'assignTime', title: '分配时间', minWidth:50,
align:"center"},
            {field: 'assigner', title: '分配人', minWidth:100, align:'center'},
            {field: 'createDate', title: '创建时间',
align:'center',minWidth:150},
            {field: 'updateDate', title: '更新时间',
align:'center',minWidth:150},
            {title: '操作', minWidth:150,
templet:'#customerServeListBar',fixed:"right",align:"center"}
        ]]
    });

    // 多条件搜索
    $(".search_btn").on("click",function(){
        table.reload("customerServeListTable",{
            page: {
                curr: 1 //重新从第 1 页开始
            },
            where: {
                customer: $("input[name='customer']").val(),  //客户名
                type: $("#type").val()  //服务类型
            }
        })
    });


    table.on("tool(customerServes)", function(obj){
        var layEvent = obj.event;
        if(layEvent === "assign") {
            openCustomerAssignDialog(obj.data.id);
        }
    });


    function openCustomerAssignDialog(id){
        var url  =  ctx+"/customer_serve/addCustomerServeProcePage?id="+id;
        layui.layer.open({
            title : "服务管理-服务处理",
            type : 2,
            area:["700px","420px"],
            maxmin:true,
            content : url
        });
    }

});
```

## 服务处理表单处理

- customer_serve_proce_add.ftl

views/customerServe 目录下添加 customer_serve_proce_add.ftl 处理表单

```html
<!DOCTYPE html>
<html>
<head>
    <#include "../common.ftl">
</head>
<body class="childrenBody">
<form class="layui-form" style="width:80%;">
    <input name="id" type="hidden" value="${customerServe.id}"/>
    <input name="state" type="hidden" value="fw_003"/>
    <input name="man" type="hidden" value="${customerServe.assigner}"/>
    <div class="layui-form-item layui-row">
        <div class="layui-col-xs6">
            <label class="layui-form-label">服务类型</label>
            <div class="layui-input-block">
                <select name="serveType"  id="serveType"  disabled="disabled">
                    <option value="" >请选择</option>
                    <option value="6" <#if
customerServe.serveType=="6">selected="selected"</#if>>咨询</option>
                    <option value="7"  <#if
customerServe.serveType=="7">selected="selected"</#if> >投诉</option>
                    <option value="8"  <#if
customerServe.serveType=="8">selected="selected"</#if>>建议</option>
                </select>
            </div>
        </div>
        <div class="layui-col-xs6">
            <label class="layui-form-label">客户</label>
            <div class="layui-input-block">
                <input type="text" class="layui-input"
                    lay-verify="required" name="customer" id="customer"
 value="${(customerServe.customer)!}" readonly="readonly">
            </div>
        </div>
    </div>

    <div class="layui-form-item layui-row">
        <label class="layui-form-label">服务内容</label>
        <div class="layui-input-block">
            <textarea  name="serviceRequest" class="layui-textarea"
readonly="readonly">${(customerServe.serviceRequest)!}</textarea>
        </div>
    </div>

    <div class="layui-form-item layui-row">
        <label class="layui-form-label">服务概要</label>
        <div class="layui-input-block">
            <textarea  name="overview" class="layui-textarea"
readonly="readonly">${(customerServe.overview)!}</textarea>
        </div>
    </div>


    <div class="layui-form-item layui-row">
        <div class="layui-col-xs6">
            <label class="layui-form-label">指派人</label>
            <div class="layui-input-block">
                <select name="assigner" id="assigner" disabled="disabled">
```

```html
                    <option value="">请选择</option>
                </select>
            </div>
        </div>
        <div class="layui-col-xs6">
            <label class="layui-form-label">指派时间</label>
            <div class="layui-input-block">
                <input type="text" class="layui-input"
                       lay-verify="required" name="assignTime" id="assignTime"
 value="${(customerServe.assignTime?string("yyyy-MM-dd HH:mm:ss"))}"
                       readonly="readonly">
            </div>
        </div>
    </div>

    <div class="layui-form-item layui-row">
        <label class="layui-form-label">服务处理</label>
        <div class="layui-input-block">
            <textarea  name="serviceProce" class="layui-textarea" ></textarea>
        </div>
    </div>

    </div>


    <br/>
    <div class="layui-form-item layui-row layui-col-xs12">
        <div class="layui-input-block">
            <button class="layui-btn layui-btn-lg" lay-submit=""
                    lay-filter="addOrUpdateCustomerServe">确认
            </button>
            <button class="layui-btn layui-btn-lg layui-btn-normal">取消</button>
        </div>
    </div>
</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.proce.add.js"></script>
</body>
</html>
```

- customer.serve.proce.add.js

js/customerServe 目录下添加 customer.serve.proce.add.js 文件实现服务处理表单提交。

```javascript
layui.use(['form', 'layer','jquery_cookie'], function () {
    var form = layui.form,
        layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery;
        $ = layui.jquery_cookie($);


    $.post(ctx+"/user/queryAllCustomerManager",function (res) {
        for (var i = 0; i < res.length; i++) {
            if($("input[name='man']").val() == res[i].id ){
                $("#assigner").append("<option value=\"" + res[i].id + "\"
selected='selected' >" + res[i].name + "</option>");
            }else {
```

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```javascript
            $("#assigner").append("<option value=\"" + res[i].id + "\">" +
res[i].name + "</option>");
            }
        }
        //重新渲染
        layui.form.render("select");
    });

    form.on("submit(addOrUpdateCustomerServe)", function (data) {
        var index = top.layer.msg('数据提交中，请稍候', {icon: 16, time: false,
shade: 0.8});
        data.field.serviceProcePeople=$.cookie("trueName");
        //弹出loading
        $.post(ctx + "/customer_serve/saveOrUpdateCustomerServe", data.field,
function (res) {
            if (res.code == 200) {
                setTimeout(function () {
                    top.layer.close(index);
                    top.layer.msg("操作成功！");
                    layer.closeAll("iframe");
                    //刷新父页面
                    parent.location.reload();
                }, 500);
            } else {
                layer.msg(
                    res.msg, {
                        icon: 5
                    }
                );
            }
        });
        return false;
    });
});
```

## 服务反馈

当服务信息处理完毕后，下一步执行服务反馈处理，用于对客户服务的满意度进行收集。

2. 打开服务反馈的对话框

1. 点击反馈按钮

## 待反馈服务记录列表展示

- customer_serve_feed_back.ftl

views/customerServe 目录下添加 customer_serve_feed_back.ftl 文件展示待反馈服务列表。

```html
<!DOCTYPE html>
<html>
<head>
    <title>服务创建</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">

<form class="layui-form" >
    <blockquote class="layui-elem-quote quoteBox">
        <form class="layui-form">
            <div class="layui-inline">
                <div class="layui-input-inline">
                    <input type="text" name="customer"
                           class="layui-input"
                   searchval" placeholder="客户" />
                </div>
                <div class="layui-input-inline">
                    <select name="type"  id="type">
                        <option value="" >请选择</option>
                        <option value="6">咨询</option>
                        <option value="7" >投诉</option>
                        <option value="8" >建议</option>
                    </select>
                </div>

                <a class="layui-btn search_btn" data-type="reload"><i
                        class="layui-icon">&#xe615;</i> 搜索</a>
            </div>
        </form>
    </blockquote>
```
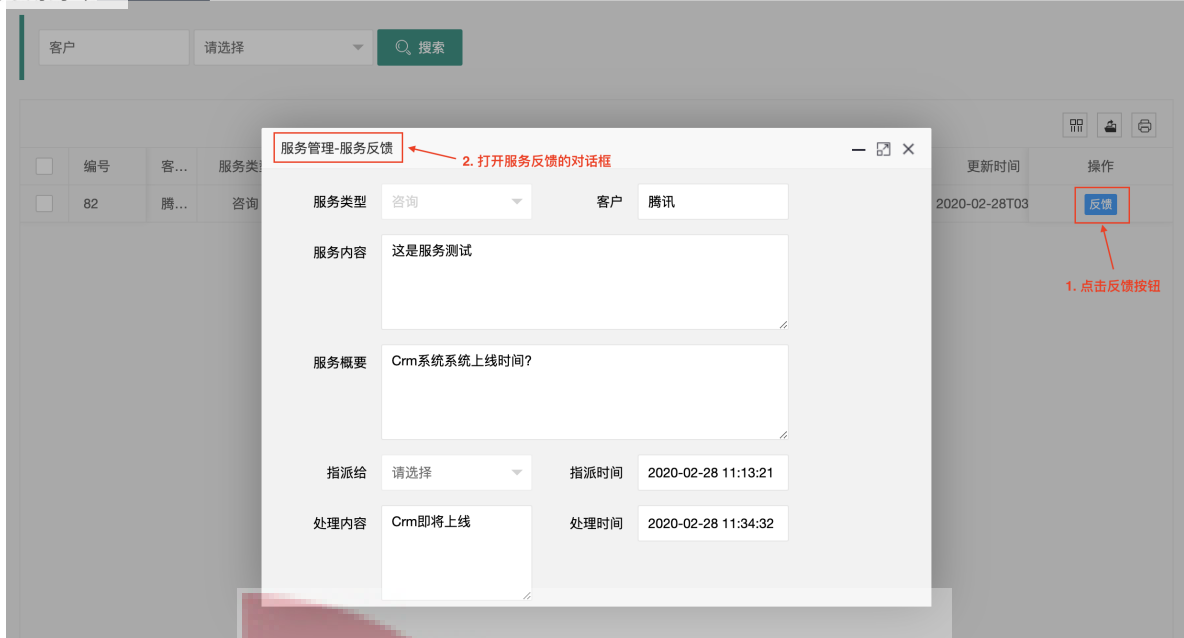
```html
<table id="customerServeList" class="layui-table"  lay-
filter="customerServes"></table>



    <script type="text/html" id="toolbarDemo">

    </script>

    <script id="customerServeListBar" type="text/html">
        <a href="javascript:;" class="layui-btn layui-btn-normal layui-btn-xs"
lay-event="back">反馈</a>
    </script>

</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.feed.back.js"></script>

</body>
</html>
```

- customer.serve.feed.back.js

js/customerServe 目录下添加 customer.serve.feed.back.js 初始化待反馈服务表格数据

```javascript
layui.use(['table','layer',"form"],function(){
    var layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        table = layui.table;

    //服务列表展示
    table.render({
        elem: '#customerServeList',
        url : ctx+'/customer_serve/list?state=fw_003',
        cellMinWidth : 95,
        page : true,
        height : "full-125",
        limits : [10,15,20,25],
        limit : 10,
        toolbar: "#toolbarDemo",
        id : "customerServeListTable",
        cols : [[
            {type: "checkbox", fixed:"left", width:50},
            {field: "id", title:'编号',fixed:"true", width:80},
            {field: 'customer', title: '客户名', minWidth:50, align:"center"},
            {field: 'dicValue', title: '服务类型', minWidth:100, align:'center'},
            {field: 'overview', title: '概要信息', align:'center'},
            {field: 'createPeople', title: '创建人', minWidth:100,
align:'center'},
            {field: 'assignTime', title: '分配时间', minWidth:50,
align:"center"},
            {field: 'assigner', title: '分配人', minWidth:100, align:'center'},
            {field: 'serviceProcePeople', title: '处理人', minWidth:50,
align:"center"},
            {field: 'serviceProceTime', title: '处理人', minWidth:100,
align:'center'},
            {field: 'createDate', title: '创建时间',
align:'center',minWidth:150},
```

```
                {field: 'updateDate', title: '更新时间',
align:'center',minWidth:150},
                {title: '操作', minWidth:150,
templet:'#customerServeListBar',fixed:"right",align:"center"}
        ]]
    });

    // 多条件搜索
    $(".search_btn").on("click",function(){
        table.reload("customerServeListTable",{
            page: {
                curr: 1 //重新从第 1 页开始
            },
            where: {
                customer: $("input[name='customer']").val(),  //客户名
                type: $("#type").val()  //服务类型
            }
        })
    });



    table.on("tool(customerServes)", function(obj){
        var layEvent = obj.event;
        if(layEvent === "back") {
            openCustomerBackDialog(obj.data.id);
        }
    });



    function openCustomerBackDialog(id){
        var url  =  ctx+"/customer_serve/addCustomerServeBackPage?id="+id;
        layui.layer.open({
            title : "服务管理-服务反馈",
            type : 2,
            area:["700px","420px"],
            maxmin:true,
            content : url
        });
    }

});
```

### 服务反馈表单处理

- customer_serve_feed_back_add.ftl

view/customerServe 目录下添加 customer_serve_feed_back_add.ftl 反馈表单模板文件

```
<!DOCTYPE html>
<html>
<head>
    <#include "../common.ftl">
</head>
<body class="childrenBody">
<form class="layui-form" style="width:80%;">
    <input name="id" type="hidden" value="${customerServe.id}"/>
    <input name="state" type="hidden" value="fw_004"/>
```

```html
<input name="man" type="hidden" value="${customerServe.assigner}"/>
    <div class="layui-form-item layui-row">
        <div class="layui-col-xs6">
            <label class="layui-form-label">服务类型</label>
            <div class="layui-input-block">
                <select name="serveType"  id="serveType"  disabled="disabled">
                    <option value="" >请选择</option>
                    <option value="6" <#if
customerServe.serveType=="6">selected="selected"</#if>>咨询</option>
                    <option value="7"  <#if
customerServe.serveType=="7">selected="selected"</#if> >投诉</option>
                    <option value="8"  <#if
customerServe.serveType=="8">selected="selected"</#if>>建议</option>
                </select>
            </div>
        </div>
        <div class="layui-col-xs6">
            <label class="layui-form-label">客户</label>
            <div class="layui-input-block">
                <input type="text" class="layui-input"
                    lay-verify="required" name="customer" id="customer"
 value="${(customerServe.customer)!}" readonly="readonly">
            </div>
        </div>
    </div>

    <div class="layui-form-item layui-row">
        <label class="layui-form-label">服务内容</label>
        <div class="layui-input-block">
            <textarea  name="serviceRequest" class="layui-textarea"
readonly="readonly">${(customerServe.serviceRequest)!}</textarea>
        </div>
    </div>

    <div class="layui-form-item layui-row">
        <label class="layui-form-label">服务概要</label>
        <div class="layui-input-block">
            <textarea  name="overview" class="layui-textarea"
readonly="readonly">${(customerServe.overview)!}</textarea>
        </div>
    </div>


    <div class="layui-form-item layui-row">
        <div class="layui-col-xs6">
            <label class="layui-form-label">指派给</label>
            <div class="layui-input-block">
                <select name="assigner" id="assigner" disabled="disabled">
                    <option value="">请选择</option>
                </select>
            </div>
        </div>
        <div class="layui-col-xs6">
            <label class="layui-form-label">指派时间</label>
            <div class="layui-input-block">
                <input type="text" class="layui-input"
                    lay-verify="required" name="assignTime" id="assignTime"
 value="${(customerServe.assignTime?string("yyyy-MM-dd HH:mm:ss"))}"
```

```html
                            readonly="readonly">
                    </div>
                </div>
            </div>

            <div class="layui-form-item layui-row">
                <div class="layui-col-xs6">
                    <label class="layui-form-label">处理内容</label>
                    <div class="layui-input-block">
                        <textarea  name="serviceProce" class="layui-textarea"
readonly="readonly" >${customerServe.serviceProce}</textarea>
                    </div>
                </div>
                <div class="layui-col-xs6">
                    <label class="layui-form-label">处理时间</label>
                    <div class="layui-input-block">
                        <input type="text" class="layui-input"
                                name="serviceProceTime" id="serviceProceTime"
                                value="${(customerServe.serviceProceTime?string("yyyy-MM-
dd HH:mm:ss"))}"
                                readonly="readonly">
                    </div>
                </div>
            </div>


            <div class="layui-form-item layui-row">
                <div class="layui-col-xs6">
                    <label class="layui-form-label">处理结果</label>
                    <div class="layui-input-block">
                        <input type="text" class="layui-input"
                                name="serviceProceResult" id="serviceProceResult" >
                    </div>
                </div>
                <div class="layui-col-xs6">
                    <label class="layui-form-label">满意度</label>
                    <div class="layui-input-block">
                        <select id="myd" name="myd" >
                            <option value="">请选择</option>
                            <option value="☆">☆</option>
                            <option value="☆☆">☆☆</option>
                            <option value="☆☆☆">☆☆☆</option>
                            <option value="☆☆☆☆">☆☆☆☆</option>
                            <option value="☆☆☆☆☆">☆☆☆☆☆</option>
                        </select>
                    </div>
                </div>
            </div>

        </div>


        <br/>
        <div class="layui-form-item layui-row layui-col-xs12">
            <div class="layui-input-block">
                <button class="layui-btn layui-btn-lg" lay-submit=""
                        lay-filter="addOrUpdateCustomerServe">确认
                </button>
```

```html
        <button class="layui-btn layui-btn-lg layui-btn-normal">取消</button>
    </div>
  </div>
</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.feed.back.add.js"></script>
</body>
</html>
```

- customer.serve.feed.back.add.js

js/customerServe 目录下添加 customer.serve.feed.back.add.js 实现反馈表单数据提交

```javascript
layui.use(['form', 'layer'], function () {
    var form = layui.form,
        layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery;

    $.post(ctx+"/user/queryAllCustomerManager",function (res) {
        for (var i = 0; i < res.length; i++) {
            if($("input[name='man']").val() == res[i].id ){
                $("#assigner").append("<option value=\"" + res[i].id + "\"
selected='selected' >" + res[i].name + "</option>");
            }else {
                $("#assigner").append("<option value=\"" + res[i].id + "\">" +
res[i].name + "</option>");
            }
        }
        //重新渲染
        layui.form.render("select");
    });

    form.on("submit(addOrUpdateCustomerServe)", function (data) {
        var index = top.layer.msg('数据提交中，请稍候', {icon: 16, time: false,
shade: 0.8});
        //弹出loading
        $.post(ctx + "/customer_serve/saveOrUpdateCustomerServe", data.field,
function (res) {
            if (res.code == 200) {
                setTimeout(function () {
                    top.layer.close(index);
                    top.layer.msg("操作成功！");
                    layer.closeAll("iframe");
                    //刷新父页面
                    parent.location.reload();
                }, 500);
            } else {
                layer.msg(
                    res.msg, {
                        icon: 5
                    }
                );
            }
        });
        return false;
    });
});
```

服务归档

当完成服务反馈操作后，此时服务记录状态进入归档状态，这里实现归档一遍后续做查询与统计分析



- customer_serve_archive.ftl

views/customerServe 目录下添加 customer_serve_archive.ftl 归档文件显示已归档服务列表信息

```html
<!DOCTYPE html>
<html>
<head>
    <title>服务归档</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">

<form class="layui-form" >
    <blockquote class="layui-elem-quote quoteBox">
        <form class="layui-form">
            <div class="layui-inline">
                <div class="layui-input-inline">
                    <input type="text" name="customer"
                           class="layui-input
            searchVal" placeholder="客户" />
                </div>
                <div class="layui-input-inline">
                    <select name="type"  id="type">
                        <option value="" >请选择</option>
                        <option value="6">咨询</option>
                        <option value="7" >投诉</option>
                        <option value="8" >建议</option>
                    </select>
                </div>

                <a class="layui-btn search_btn" data-type="reload"><i
                        class="layui-icon">&#xe615;</i> 搜索</a>
            </div>
        </form>
    </blockquote>
    <table id="customerServeList" class="layui-table"  lay-
filter="customerServes"></table>


    <script type="text/html" id="toolbarDemo">
    </script>
```

```html
</form>
<script type="text/javascript"
src="${ctx}/static/js/customerServe/customer.serve.archive.js"></script>


</body>
</html>
```

- customer.serve.archive.js

js/customerServe 目录下添加 customer.serve.archive.js 文件初始化归档列表记录

```javascript
layui.use(['table','layer',"form"],function(){
    var layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        table = layui.table;

    //服务列表展示
    table.render({
        elem: '#customerServeList',
        url : ctx+'/customer_serve/list?state=fw_005',
        cellMinWidth : 95,
        page : true,
        height : "full-125",
        limits : [10,15,20,25],
        limit : 10,
        toolbar: "#toolbarDemo",
        id : "customerServeListTable",
        cols : [[
            {type: "checkbox", fixed:"left", width:50},
            {field: "id", title:'编号',fixed:"true", width:80},
            {field: 'customer', title: '客户名', minWidth:50, align:"center"},
            {field: 'dicValue', title: '服务类型', minWidth:100, align:'center'},
            {field: 'overview', title: '概要信息', align:'center'},
            {field: 'assignTime', title: '分配时间', minWidth:50,
align:"center"},
            {field: 'createPeople', title: '创建人', minWidth:100,
align:'center'},
            {field: 'serviceProcePeople', title: '处理人', align:'center'},
            {field: 'serviceProce', title: '处理内容', minWidth:50,
align:"center"},
            {field: 'serviceProceTime', title: '处理时间', minWidth:100,
align:'center'},
            {field: 'serviceProceResult', title: 'center', align:'center'},
            {field: 'myd', title: 'myd', align:'center'},
            {field: 'createDate', title: '创建时间',
align:'center',minWidth:150},
            {field: 'updateDate', title: '更新时间',
align:'center',minWidth:150},
        ]]
    });

    // 多条件搜索
    $(".search_btn").on("click",function(){
        table.reload("customerServeListTable",{
            page: {
                curr: 1 //重新从第 1 页开始
```

```
                },
                where: {
                    customer: $("input[name='customer']").val(),  //客户名
                    type: $("#type").val()  //服务类型
                }
            })
        });

    });
```

# 统计报表

## 客户贡献分析

这里实现每个客户(有效未流失客户)自创建以来下单的总金额统计，方便公司与客户后续进行更好合作。



### 客户贡献分析后端核心

- CustomerMapper.xml 统计核心SQL

```xml
<select id="queryCustomerContributionByParams"
parameterType="com.xxxx.crm.query.CustomerQuery" resultType="map">
        select
          c.name,
          sum(d.sum) as total
        FROM
            t_customer c
        LEFT JOIN t_customer_order o ON c.id = o.cus_id
        LEFT JOIN t_order_details d ON o.id = d.order_id
        <where>
            c.is_valid = 1
            AND o.state = 1
            <if test="null !=cusName and cusName!=''">
                and c.name like concat('%',#{cusName},'%')
            </if>
            <if test="null !=time">
                and o.order_date &gt;#{time}
            </if>
        </where>
        GROUP BY c.name
        <if test="null !=type and type !=''">
            <if test="type ==1 ">
                HAVING    total &lt;=1000
```

```xml
                        </if>
                        <if test="type ==2">
                            HAVING total &gt;1000 and total &lt;=3000
                         </if>
                        <if test="type ==3">
                            HAVING total &gt;3000 and total &lt;=5000
                        </if>
                        <if test="type ==4">
                            HAVING  total &gt;5000
                        </if>
                </if>
                ORDER BY  total DESC
</select>
```

- CustomerQuery 查询条件定义

```java
public class CustomerQuery extends BaseQuery {
    private String cusName;

    private String cusNo;

    private String level;

    private String myd;

    // 1  0-1000   2 1000-3000  3  3000-5000   4 50000
    private String type;

    private String time;
}
```

```java
public Map<String,Object> queryCustomerContributionByParams(CustomerQuery
customerQuery){
    Map<String,Object> result =new HashMap<String,Object>();
    PageHelper.startPage(customerQuery.getPage(),customerQuery.getLimit());
    List<Map<String,Object>> list =
customerMapper.queryCustomerContributionByParams(customerQuery);
    PageInfo<Map<String,Object>> pageInfo = new PageInfo<Map<String,Object>>
(list);
    result.put("count",pageInfo.getTotal());
    result.put("data",pageInfo.getList());
    result.put("code",0);
    result.put("msg","");
    return result;
}
```

CustomerController

```
 *
 * 客户贡献分析
 */
@RequestMapping("queryCustomerContributionByParams")
@ResponseBody
public Map<String,Object> queryCustomerContributionByParams(CustomerQuery
customerQuery){
    return customerService.queryCustomerContributionByParams(customerQuery);
}
```

## 客户贡献前端实现

customer_contri.ftl

views/report 目录下创建 customer_contri.ftl 模板文件

```html
<!--
    客户贡献分析页面
-->
<!DOCTYPE html>
<html>
<head>
    <title>客户贡献报表</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">

<form class="layui-form" >
    <blockquote class="layui-elem-quote quoteBox">
        <form class="layui-form">
            <div class="layui-inline">
                <div class="layui-input-inline">
                    <input type="text" name="customerName"
                            class="layui-input
                    searchVal" placeholder="客户名" />
                </div>
                <div class="layui-input-inline">
                    <select name="type" id="type">
                        <option value="">请选择金额区间</option>
                        <option value="1">0-1000</option>
                        <option value="2">1000-3000</option>
                        <option value="3">3000-5000</option>
                        <option value="4">5000以上</option>
                    </select>
                </div>
                <div class="layui-input-inline">
                    <input type="text" name="time" id="time"
                            class="layui-input
                    searchVal" placeholder="下单时间"  readonly="readonly" />
                </div>
                <a class="layui-btn search_btn" data-type="reload"><i
                            class="layui-icon">&#xe615;</i> 搜索</a>
            </div>
        </form>
    </blockquote>
```

```html
<table id="contriList" class="layui-table"  lay-filter="contris"></table>


</form>
<script type="text/javascript" src="${ctx}/static/js/report/customer.contri.js">
</script>


</body>
</html>
```

customer.contri.js

js/report 目录下创建 customer.contri.js 文件 初始化贡献分析表格数据

```javascript
layui.use(['table','layer',"form","laydate"],function(){
    var layer = parent.layer === undefined ? layui.layer : top.layer,
        $ = layui.jquery,
        table = layui.table,
        laydate = layui.laydate;

    // 设置时间  引入时间组件
        laydate.render({
            elem: '#time'
        });
    //用户列表展示
    var  tableIns = table.render({
        elem: '#contriList',
        url : ctx+'/customer/queryCustomerContributionByParams',
        cellMinWidth : 95,
        page : true,
        height : "full-125",
        limits : [10,15,20,25],
        limit : 10,
        id : "customerContriListTable",
        cols : [[
            {type: "checkbox", fixed:"left", width:50},
            {field: "id", title:'编号',fixed:"true", width:80},
            {field: 'name', title: '客户名', minWidth:50, align:"center"},
            {field: 'total', title: '总金额(¥)', minWidth:50, align:"center"}
        ]]
    });




    // 多条件搜索
    $(".search_btn").on("click",function(){
        table.reload("customerContriListTable",{
            page: {
                curr: 1 //重新从第 1 页开始
            },
            where: {
                cusName: $("input[name='customerName']").val(),  //客户名
                type: $("#type").val(),   //金额区间
                time: $("input[name='time']").val()   //下单时间
            }
        })
    });
```
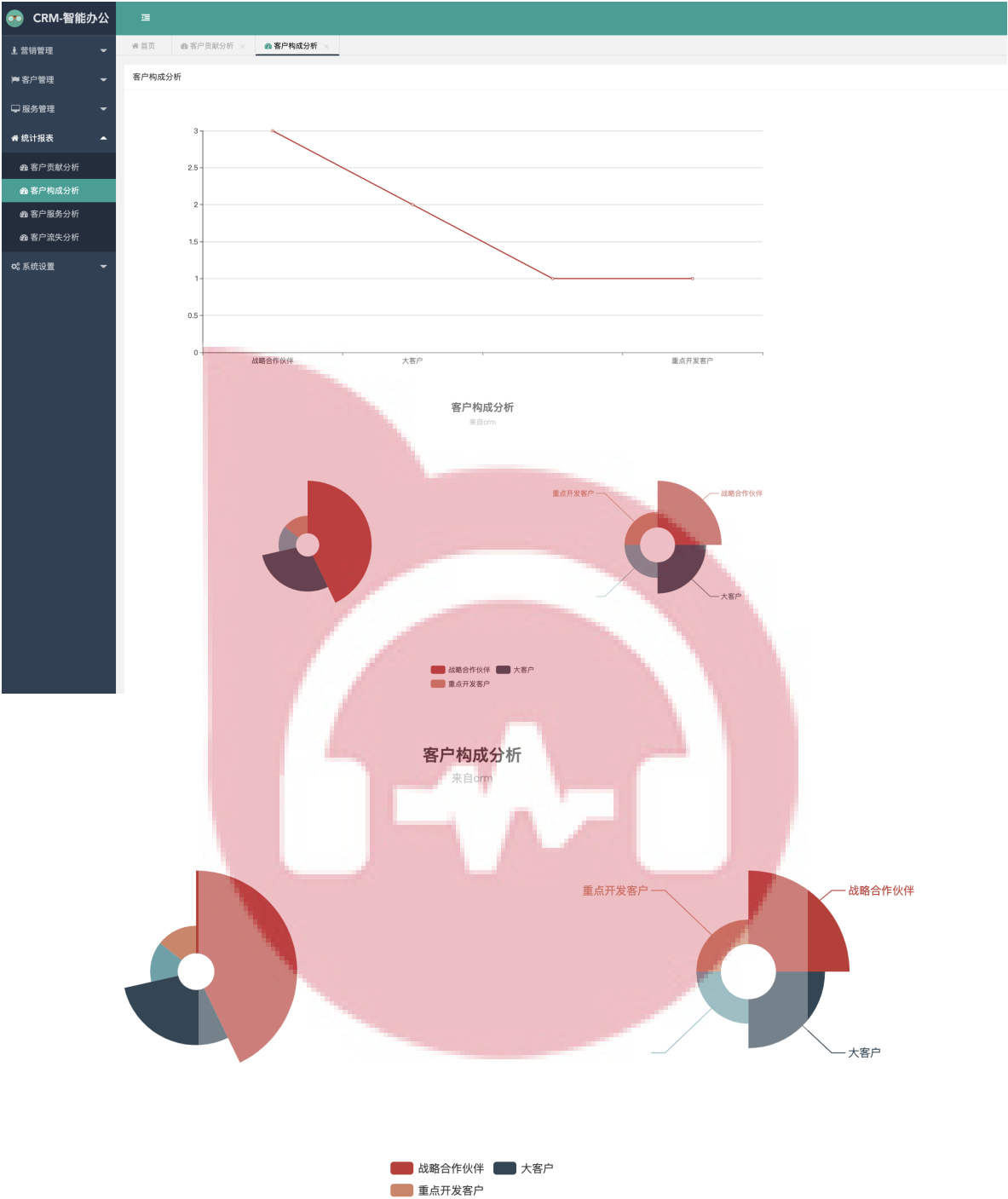
# 客户构成分析

这里展示客户构成采用图形化报表技术实现，借助折线图与饼状图显示对于数据展示更加直观清晰。



## 客户构成分析后端实现

这里折线图、饼状图前端数据格式要求参考echarts 折线图示例、饼状图示例

    CustomerMapper.xml SQL 统计

```xml
<select id="countCustomerMake" resultType="map">
    SELECT
        level,
        count(1) AS total
    FROM
        t_customer
    WHERE
        is_valid = 1
    AND state = 0
    GROUP BY
        LEVEL
</select>
```

CustomerService.java

```java
// 折线图数据处理
public Map<String,Object> countCustomerMake(){
    Map<String,Object> result=new HashMap<String,Object>();
    List<Map<String,Object>> list =customerMapper.countCustomerMake();
    List<String> data1List=new ArrayList<String>();
    List<Integer> data2List=new ArrayList<Integer>();
    list.forEach(m->{
        data1List.add(m.get("level").toString());
        data2List.add(Integer.parseInt(m.get("total")+""));
    });
    result.put("data1",data1List);
    result.put("data2",data2List);
    return result;
}


// 饼状图数据处理
public Map<String,Object> countCustomerMake02(){
    Map<String,Object> result=new HashMap<String,Object>();
    List<Map<String,Object>> list =customerMapper.countCustomerMake();
    List<String> data1List=new ArrayList<String>();
    List<Map<String,Object>> data2List=new ArrayList<Map<String,Object>>();
    list.forEach(m->{
        data1List.add(m.get("level").toString());
        Map<String,Object> temp=new HashMap<String,Object>();
        temp.put("name",m.get("level"));
        temp.put("value",m.get("total"));
        data2List.add(temp);
    });
    result.put("data1",data1List);
    result.put("data2",data2List);
    return result;
}
```

CustomerController

```java
// 折线图接口地址
@RequestMapping("countCustomerMake")
@ResponseBody
public Map<String,Object> countCustomerMake(){
    return customerService.countCustomerMake();
```

```java
// 饼状图接口地址
@RequestMapping("countCustomerMake02")
@ResponseBody
public Map<String,Object> countCustomerMake02(){
    return customerService.countCustomerMake02();
}
```

## 客户构成前端s实现

customer_make.ftl

views/report 目录下添加 customer_make.ftl 文件展示图像化报表

```html
<!--
    客户构成分析页面
-->
<!DOCTYPE html>
<html>
<head>
    <title>客户开发计划管理</title>
    <#include "../common.ftl">
</head>
<body class="childrenBody">
    <div class="layui-card">
        <div class="layui-card-header">客户构成分析</div>
        <div class="layui-card-body" id="make" style="width: 100%;min-height:500px"></div>

        <div class="layui-card-body" id="make02" style="width: 100%;min-height:500px"></div>
    </div>

    <script type="text/javascript"
src="${ctx}/static/js/report/customer.make.js"></script>
</body>
</html>
```

customer.make.js

js/report 目录下创建 customer.make.js 文件初始化折线图 饼状图报表

```javascript
layui.use(['layer', 'layuimini','echarts'], function () {
    var $ = layui.jquery,
        echarts = layui.echarts;


    $.ajax({
        type:"post",
        url:ctx+"/customer/countCustomerMake",
        dataType:"json",
        success:function (data) {
            // 基于准备好的dom，初始化echarts实例
```

```javascript
                var myChart = echarts.init(document.getElementById('make'));

                // 指定图表的配置项和数据
                var option ={
                    xAxis: {
                        type: 'category',
                        data: data.data1
                    },
                    yAxis: {
                        type: 'value'
                    },
                    series: [{
                        data: data.data2,
                        type: 'line'
                    }]
                };
                // 使用刚指定的配置项和数据显示图表。
                myChart.setOption(option);
            }
        });


        $.ajax({
            type:"post",
            url:ctx+"/customer/countCustomerMake02",
            dataType:"json",
            success:function (data) {
                // 基于准备好的dom，初始化echarts实例
                var myChart = echarts.init(document.getElementById('make02'));

                // 指定图表的配置项和数据
                // 指定图表的配置项和数据
                var option = {
                    title: {
                        text: '客户构成饼状图分析',
                        subtext: '来自crm',
                        left: 'center'
                    },
                    tooltip: {
                        trigger: 'item',
                        formatter: '{a} <br/>{b} : {c} ({d}%)'
                    },
                    legend: {
                        left: 'center',
                        top: 'bottom',
                        data:  data.data1
                    },
                    toolbox: {
                        show: true,
                        feature: {
                            mark: {show: true},
                            dataView: {show: true, readOnly: false},
                            magicType: {
                                show: true,
                                type: ['pie', 'funnel']
                            },
                            restore: {show: true},
                            saveAsImage: {show: true}
```

```
                }
            },
            series: [
                {
                    name: '半径模式',
                    type: 'pie',
                    radius: [20, 110],
                    center: ['25%', '50%'],
                    roseType: 'radius',
                    label: {
                        show: false
                    },
                    emphasis: {
                        label: {
                            show: true
                        }
                    },
                    data: data.data2
                },
                {
                    name: '面积模式',
                    type: 'pie',
                    radius: [30, 110],
                    center: ['75%', '50%'],
                    roseType: 'area',
                    data: data.data2
                }
            ]
        };
        // 使用刚指定的配置项和数据显示图表。
        myChart.setOption(option);
    });

});
```

这里对于客户服务分析实现可参考客户构成分析，不在做具体介绍。

## 客户流失分析

在客户管理模块已经实现流失客户数据收集，并采用定时任务定时收集流失客户数据，这里客户流失分析报表主要展示已流失客户数据，便于实时了解当前系统维护的客户数据



对于该表格展示可参考客户流失管理页面展示，不在做具体介绍。