

实验 3 JavaScript 与 DOM

一、 实验目的

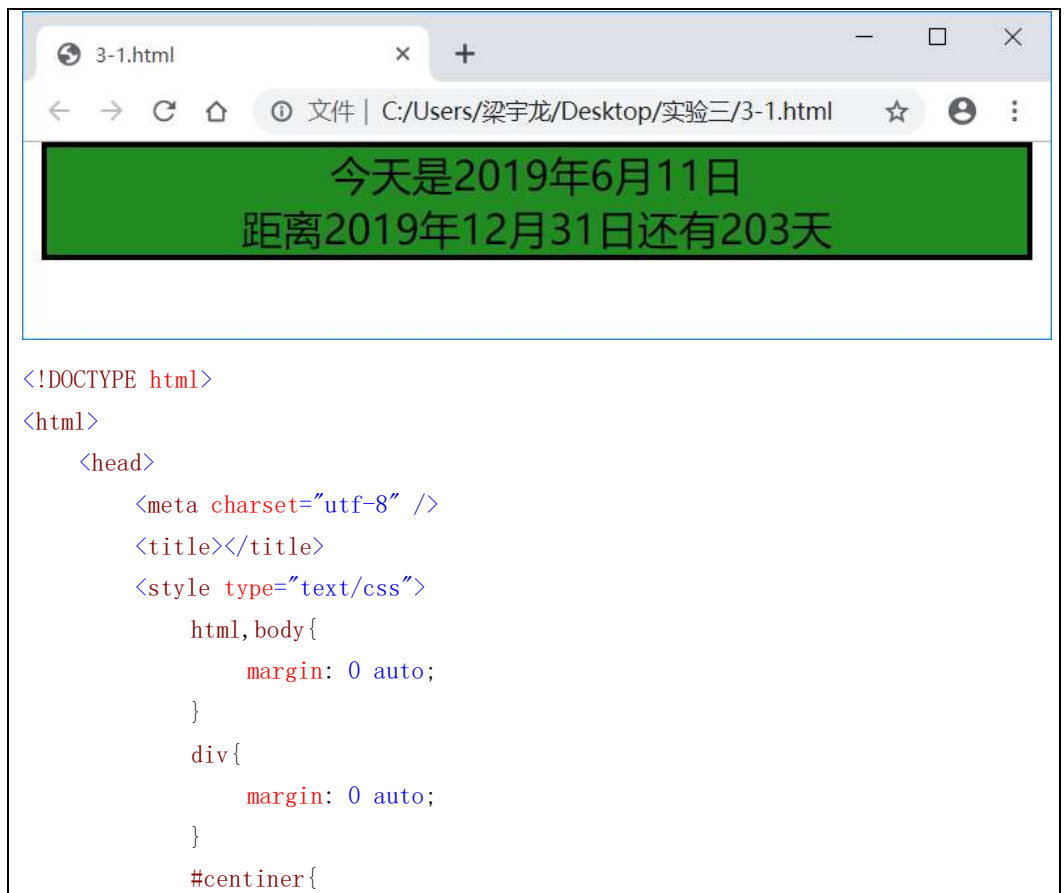
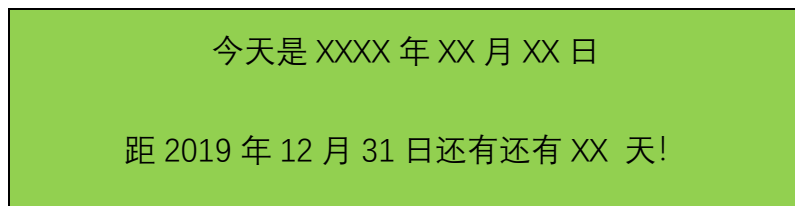
1. 掌握 JavaScript 脚本的编写方法;
2. 掌握 Javascript 常用对象的使用,脚本操作 DOM 元素及常用方法调用;
3. 掌握 HTML 页面与 Javascript 脚本关联使用

二、实验要求

按要求完成程序, 并上交实验报告, 期末按班级统一上交电子档

三、实验内容（4 学时）

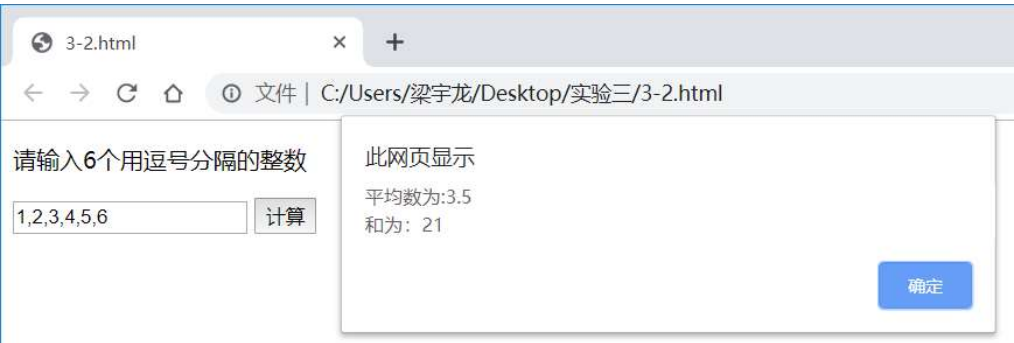
3.1 在一个 DIV 内,根据当前日期动态计算并显示如下信息。



```
        border: 3px solid black;
        width: 600px;
        text-align: center;
        background-color: forestgreen;
        font-family: "微软雅黑";
        font-size: 25px;
    }
</style>
<script>
    function ShowTime() {
        var d = new Date()
        var s = "今天是" + d.getFullYear() + "年" + (d.getMonth() + 1) +
"月" + d.getDate() + "日";
        document.getElementById("div_today").innerHTML = s;
        var d1 = new Date(2019, 11, 31);
        var x = GetyDiffDays(new Date(), d1);
        document.getElementById("div_spanddays").innerHTML = "距离2019年12
月31日还有" + x + "天";
    }

    function GetyDiffDays(date1, date2) {
        var msec1 = date1.getTime();
        var msec2 = date2.getTime();
        var days = Math.ceil((msec2 - msec1) / (24 * 60 * 60 * 1000));
        return days;
    }
</script>
</head>
<body onload="ShowTime()">
    <div id="centiner">
        <div id="div_today"></div>
        <div id="div_spanddays"></div>
    </div>
</body>
</html>
```

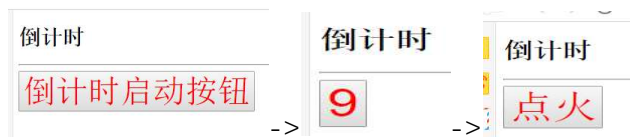
3.2，编写程序，用户从表单文本框任意输入 6 个用逗号分隔的整数字符串,如 1,2,3,5,6,7 单击计算按钮，使用警告对话框，显示 6 个数的平均数及和。



The screenshot shows a web browser window with the address bar displaying "C:/Users/梁宇龙/Desktop/实验三/3-2.html". The page content includes a prompt "请输入6个用逗号分隔的整数" (Please enter 6 integers separated by commas), a text input field containing "1,2,3,4,5,6", and a "计算" (Calculate) button. An alert dialog box is displayed over the page, showing the results: "此网页显示" (This webpage displays), "平均数为:3.5" (Average is: 3.5), and "和为: 21" (Sum is: 21). A "确定" (OK) button is at the bottom right of the dialog.

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title></title>
    <script>
      function doIt() {
        var sum = 0;
        var str = document.getElementById("numberText").value;
        var arr = str.split(",");
        for(var i=0;i<6;i++){
          sum += parseInt(arr[i]);
        }
        var ave = sum / 6;
        alert("平均数为:"+ave+"\n"+"和为: "+sum);
      }
    </script>
  </head>
  <body>
    <p>请输入6个用逗号分隔的整数</p>
    <input type="text" id="numberText"/>
    <input type="button" value="计算" onclick="doIt()" />
  </body>
</html>
```

3.3 , 倒计时按钮: 点击倒计时按钮后,按钮不可点击,同时从 10 秒钟倒计时到 0 之后, 按钮文字变为点火,同时可以点击.



```


        fireDo();
    }
    t--;
}


function fireDo() {
    document.getElementById("fire").value = "点火";
    document.getElementById("fire").disabled=false;
}
</script>
</head>
<body>
    <div style="text-align: center;">
        <p style="font-size: 30px; font-family: '微软雅黑'; font-weight:
bold;">火箭发射倒计时</p>
        <input type="button" value="启动" id="fire" onclick="fireGo() "/>
    </div>
</body>
</html>


```

3.4 用户进入 DIV,背景颜色红色转为绿色,移出恢复红色

每单击显示当前单击的累计次数,当累计到第三次时,该 DIV 消失。







```

<!DOCTYPE html>
<html>
    <head>
        <meta charset="UTF-8">

```

```

<title></title>
<style type="text/css">
    html, body, div {
        margin: 0 auto;
        text-align: center;
        font-size: 40px;
    }
    #centiner {
        width: 500px;
        text-align: center;
        align-content: center;
        font: "微软雅黑" bold;
        color: blue;
        background-color: yellowgreen;
        padding-top: 100px;
        padding-bottom: 100px;
    }
</style>
<script>
    var i=1;
    function mo() {
        document.getElementById("centiner").style.backgroundColor =
"yellow";

        document.getElementById("centiner").style.color = "red";
        document.getElementById("centiner").innerHTML = "我爱你中国! ";
        i++;
    }
    function mout() {
        document.getElementById("centiner").style.backgroundColor =
"yellowgreen";

        document.getElementById("centiner").style.color = "blue";
        document.getElementById("centiner").innerHTML = "您还能触控
"+(4-i)+"次";

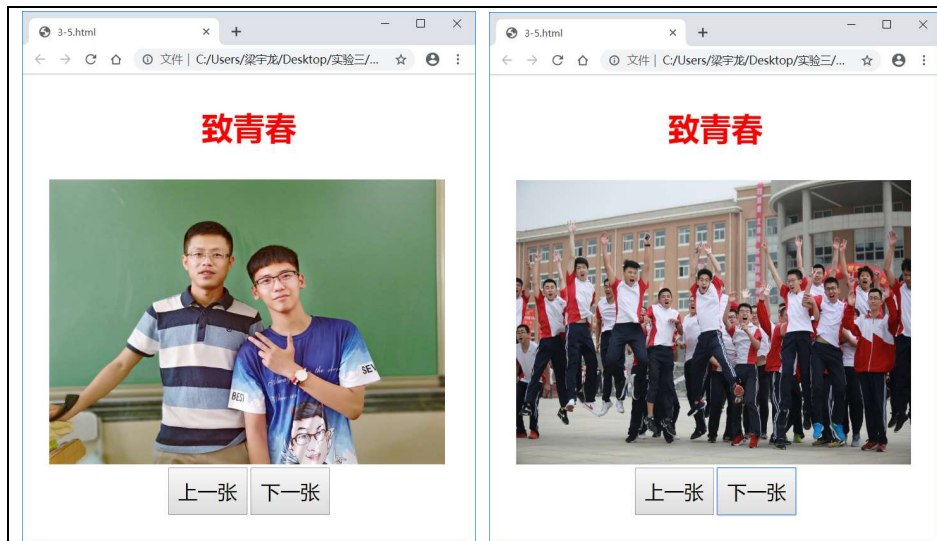
        if (i==4) {
            document.getElementById("centiner").style.display =
"none";
        }
    }
</script>
</head>
<body>
    <div id="centiner" onmouseover="mo()" onmouseout="mout()">

```

移动至此处有福利

```
</div>
</body>
</html>
```

3.5 设计程序，给你 5 张图片，通过单击上一张，下一张按钮实现图片的动态循环显示。



```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title></title>
    <style type="text/css">
      img{
        width: 500px;
        height: 360px;
      }
      div{
        margin: 0 auto;
        width: 520px;
        text-align: center;
      }
      input{
        width: 100px;
        height: 60px;
        font-size: 25px;
      }
    </style>
  </head>
  <body>
    <div>
      <h2>致青春</h2>
      
      <input type="button" value="上一张" />
      <input type="button" value="下一张" />
    </div>
  </body>
</html>
```

```
    }  
    h3{  
        font-family: "微软雅黑";  
        font-size: 40px;  
        color: red;  
    }  
</style>  
<script>  
    i=1;  
    function upone() {  
        i--;  
        if(i==0) {  
            i=5;  
        }  
        gotofind();  
    }  
    function downone() {  
        i++;  
        if(i==6) {  
            i=1;  
        }  
        gotofind();  
    }  
    function gotofind() {  
        if(i==1) {  
            document.getElementById("centiner").src="img/null-  
8c3e222815d8649. jpg"  
        }  
        if(i==2) {  
  
            document.getElementById("centiner").src="img/3b1b0ae995866b77. jpg"  
        }  
        if(i==3) {  
            document.getElementById("centiner").src="img/null-  
664a5b389786b9cc. jpg"  
        }  
        if(i==4) {  
            document.getElementById("centiner").src="img/null-  
6c77488c35248245. jpg"  
        }  
        if(i==5) {
```



```

document.getElementById("centiner").src="img/null13531f943223c42dd.jpg"
    }
}
</script>
</head>
<body>
    <div>
        <h3>致青春</h3>
        
        <br />
        <input type="button" value="上一张" name="upone"
onclick="upone()" />
        <input type="button" value="下一张" name="downone"
onclick="downone()" />
    </div>
</body>
</html>

```

3.6 自行设置表单及两列表格,对齐显示录入表单, 要求有**姓名**(文本框 不能为空), **性别**(单选按钮{男, 女}), **籍贯**(下拉列表, {辽宁省, 黑龙江省, 吉林省, 北京市}) **电子邮件**(文本框, 必须包含@和.字符), **个人简介**(文本域), **显示信息块**(DIV,背景为淡黄色,用于显示输入信息汇总), **保存按钮**(按钮,当点击该按钮时,检查所填写的项是否合法 不合法用警告框显示提示信息,合法则在显示信息块中显示输入的值)

The screenshot shows a web browser window with the title '3-6.html'. The address bar shows the file path 'C:/Users/梁宇龙/Desktop/实验三/3-6.html'. The main content area contains a form titled '用户注册' (User Registration) and a yellow box titled '信息显示区' (Information Display Area).

The '用户注册' form includes the following fields and controls:

- 姓名:** Text input field with a placeholder '(不得小于2字符)'.
- 性别:** Radio buttons for '男' (Male) and '女' (Female).
- 籍贯:** A dropdown menu showing '辽宁' (Liaoning) with sub-drawdowns for '省' (Province) and '市' (City), currently showing '沈阳' (Shenyang).
- 电子邮件:** Text input field with a placeholder '(必须包含@和.)'.
- 个人简介:** Text area.
- Buttons:** '保存' (Save) and '提交' (Submit) buttons.

The '信息显示区' is a large yellow rectangular area below the form.

```
<!DOCTYPE html>
<html>
    <head>
        <meta charset="UTF-8">
        <title></title>
        <style type="text/css">
            body {
                font-size: 12px;

            }

            table {
                margin: 0 auto;
                width: 600px;
                border-collapse: collapse;
                border: 1px solid black;
            }

            table td {
                border: 1px solid black;
            }

            td:first-child {
                width: 100px;
            }

            #celect{
                margin: 0 auto;
                width: 600px;
                height: 200px;
                background-color: yellow;
            }

            #footer{
                font-family: "微软雅黑";
                font-weight: bold;
                text-align: center;
            }
        </style>
        <script>
            function TiJiao() {
                if(checkName()&&checkEmail()) {
                    fr.tijiao.disabled=true;
                    document.fr.tijiao.value="已提交";
                    return true;
                }
            }
        </script>
    </head>
    <body>
        <div id="form">
            <div id="header">
                <div id="title">
                    注册
                </div>
                <div id="input">
                    <input type="text"/>
                </div>
                <div id="button">
                    <input type="button" value="注册"/>
                </div>
            </div>
            <div id="celect">
                <div id="name">
                    姓名
                </div>
                <div id="password">
                    密码
                </div>
                <div id="email">
                    电子邮箱
                </div>
                <div id="phone">
                    手机号码
                </div>
                <div id="confirm_password">
                    确认密码
                </div>
            </div>
            <div id="tfoot">
                <div id="copyright">
                    版权所有 © 2023
                </div>
                <div id="contact">
                    联系我们
                </div>
            </div>
        </div>
    </body>
</html>
```

```

    }
    else return false;
}

function checkName() {
    var strName=document.fr.txtName.value;
    if (strName.length<2) {
        alert("姓名不得小于2字符!");
        document.fr.txtName.focus();
        return false;
    }
    else
        for(i=0;i<strName.length;i++) {
            str=strName.substring(i,i+1);
            if(str>="0"&&str<="9") {
                alert("名字中不能包含数字");
                document.fr.txtName.focus();
                return false;
            }
        }
    return true;
}

function checkEmail() {
    var strEmail=document.fr.txtEmail.value;
    if (strEmail.length==0) {
        alert("电子邮件不能为空!!!");
        return false;
    }
    if (strEmail.indexOf("@",0)==-1) {
        alert("电子邮件必须包括@");
        return false;
    }
    if (strEmail.indexOf(".",0)==-1) {
        alert("电子邮件必须包括.");
        return false;
    }
    return true;
}

function BaoCun()
{
    var xm=document.fr.txtName.value;
    var xb=document.fr.xingbie.value;
    var sheng=document.fr.sheng.value;

```

```

var shi=document.fr.shi.value;
var em=document.fr.txtEmail.value;
var jianjie=document.fr.jj.value;
document.getElementById("celect").innerHTML += "姓名：
"+xm+"<br/>";
document.getElementById("celect").innerHTML += "性别：
"+xb+"<br/>";
document.getElementById("celect").innerHTML += "籍贯： "+sheng+"
省 "+shi+"市"+"<br/>";
document.getElementById("celect").innerHTML += "电子邮件：
"+em+"<br/>";
document.getElementById("celect").innerHTML += "个人简介：
"+jianjie+"<br/>";
fr.baocun.disabled=true;
document.fr.baocun.value="已保存";
}
</script>
</head>
<body>
<div id="centiner">
<form name="fr" method="post">
<table>
<tr style="background-color:#ccc">
<td colspan="2" style=" font:bolder 18pt '微软雅黑';text-align:center; ">用 户 注 册</td>
</tr>
<tr>
<td>姓名:</td>
<td><input type="text" name="txtName" />（不得小于2字符）
</td>
</tr>
<tr>
<td>性别: </td>
<td><input type="radio" name="xingbie" value="男"
checked="checked"/>男<input type="radio" name="xingbie" value="女"/>女</td>
</tr>
<tr>
<td>籍贯: </td>
<td>
<select id="sheng">
<option>辽宁</option>
<option>黑龙江</option>

```

```

        <option>吉林</option>
        <option>其他</option>
    </select>省
    <select id="shi">
        <option>沈阳</option>
        <option>大连</option>
        <option>葫芦岛</option>
        <option>其他</option>
    </select>市
    </td>
</tr>
<tr>
    <td>电子邮件: </td>
    <td><input type="email" name="txtEmail" /> (必须包含@和.)
</td>

</tr>
<tr>
    <td>个人简介: </td>
    <td><textarea id="jj"></textarea></td>
</tr>
<tr style="background-color:#ccc">
    <td colspan="2" style="text-align: center;">
        <input type="button" value="保存" name="baocun"
onclick="BaoCun()" />
        <input type="button" value="提交" name="tijiao"
onclick="TiJiao()" />
    </td>
</tr>
</table>
<div id="celect">
    <h1 id="footer">信息显示区</h1>
</div>
</form>
</div>
</body>
</html>

```