

浙江大学城市学院实验报告

课程名称 跨平台脚本开发技术

实验项目名称 实验十 文档对象模型 (DOM)

学生姓名 吴成洋 专业班级 软件工程 1404 学号 31401417

实验成绩 指导老师 (签名) 日期

注意:

- 务请保存好各自的源代码, 已备后用。
- 请把作业保存为 pdf 上传到 BB 平台, 请务必在截止日期前提交。

实验目的:

- 1、掌握 JS 中的模块定义与使用。
- 2、了解编程语言及其解释器的原理与实现

实验内容:

1. 阅读课件讲义并运行讲义示例程序
2. 教材 P181 习题 13.15.1, 13.15.2, 13.15.3
3. 教材 P196 习题 14.16.1, 14.16.2, 14.16.3

实验步骤:

1、

已阅读讲义实例

2、

2.1、

name	height	country
Kilimanjaro	5895	Tanzania
Everest	8848	Nepal
Mount Fuji	3776	Japan
Mont Blanc	4808	Italy/France
Vaalserberg	323	Netherlands
Denali	6168	United States
Popocatepetl	5465	Mexico

代码如下：

```
<!doctype html>
<script src="mountains.js"></script>
<script src="13_dom.js"></script>

<table>
  <tr>
    <th>name</th>
    <th>height</th>
    <th>country</th>
  </tr>
  <tr>
    <td>Killmanjaro</td>
    <td>5895</td>
    <td>Tanzania</td>
  </tr>
</table>

<style>
  /* Defines a cleaner look for tables */
  table { border-collapse: collapse; }
  td, th { border: 1px solid black; padding: 3px 8px; }
  th { text-align: left; }
</style>

<body>
<script>
  function buildTable(data) {
    var table = document.createElement("table");
    var fields = Object.keys(data[0]);
```

```
var headRow = document.createElement("tr");

fields.forEach(function(field){
    var headCell =document.createElement("th");
    headCell.textContent = field;
    headRow.appendChild(headCell);
});
table.appendChild(headRow);

data.forEach(function(object) {
    var row = document.createElement("tr");
    fields.forEach(function(field){
        var cell = document.createElement("td");
        cell.textContent = object[field];
        if(typeof object[field] == "number")
            cell.style.textAlign = "right";
        row.appendChild(cell);
    });
    table.appendChild(row);
});
return table;
}

document.body.appendChild(buildTable(MOUNTAINS));
</script>
</body>
```

2.2、

Heading with a span element.

A paragraph with one, two spans.

```
<!doctype html>
<script src="mountains.js"></script>
<script src="13_dom.js"></script>

<h1>Heading with a <span>span</span> element.</h1>
<p>A paragraph with <span>one</span>, <span>two</span>
```

```
spans.</p>

<script>
  function byTagName(node, tagName) {
    var found = [];
    tagName = tagName.toUpperCase();

    function explore(node) {
      for (var i = 0; i < node.childNodes.length; i++) {
        var child = node.childNodes[i];
        if (child.nodeType == document.ELEMENT_NODE) {
          if (child.nodeName == tagName)
            found.push(child);
          explore(child);
        }
      }
    }

    explore(node);
    return found;
  }

  console.log(byTagName(document.body, "h1").length);
  // → 1
  console.log(byTagName(document.body, "span").length);
  // → 3
  var para = document.querySelector("p");
  console.log(byTagName(para, "span").length);
  // → 2
</script>
```

2.3、

```
<!doctype html>
<script src="mountains.js"></script>
<script src="13_dom.js"></script>




<body>

<script>
  var cat = document.querySelector("#cat");
```

```
var hat = document.querySelector("#hat");
var angle = 0;
var lastTime = null ;
function animate(time){
    if (lastTime != null ){
        angle +=(time - lastTime) * 0.0015;
    }
    lastTime = time;

    cat.style.top =(Math.sin(angle)*50+80)+"px";
    cat.style.left = (Math.cos(angle)*200+230)+"px";
    var hatAngle = angle + Math.PI;
    hat.style.top =(Math.sin(angle)*50+80)+"px";
    hat.style.left = (Math.cos(angle)*200+230)+"px";
    requestAnimationFrame(animate);
}
requestAnimationFrame(animate);

</script>
</body>
```

3、

3.1、

RTT

代码如下：

```
<!doctype html>

<input type="text">
<script>
    var field = document.querySelector("input");
    field.addEventListener("keydown",function(event){
        if(event.keyCode == "Q".charCodeAt(0)||
            event.keyCode == "W".charCodeAt(0)||
            event.keyCode == "X".charCodeAt(0))
            event.preventDefault();
    });
</script>
```

3.2、

代码如下：

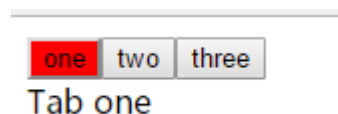
```
<!doctype html>

<style>
  .trail { /* className for the trail elements */
    position: absolute;
    height: 6px; width: 6px;
    border-radius: 3px;
    background: teal;
  }
  body {
    height: 300px;
  }
</style>

<body>
<script>
var dots = [];
for (var i = 0 ; i < 12 ;i++)
{
  var node = document.createElement("div");
  node.className = "trail";
  document.body.appendChild(node);
  dots.push(node);
}
var currentDot = 0;
addEventListener("mousemove",function(event){
  var dot = dots[currentDot];
  dot.style.left = (event.pageX)+"px";
  dot.style.top = (event.pageY)+"px";
  currentDot = (currentDot + 1) % dots.length;
});

</script>
</body>
```

3.3、



代码如下：

```
<!doctype html>

<div id="wrapper">
  <div data-tabname="one">Tab one</div>
  <div data-tabname="two">Tab two</div>
  <div data-tabname="three">Tab three</div>
</div>
<script>
  function asTabs(node) {
    var tabs = [];
    for (var i = 0; i < node.childNodes.length; i++) {
      var child = node.childNodes[i];
      if (child.nodeType == document.ELEMENT_NODE)
        tabs.push(child);
    }

    var tabList = document.createElement("div");
    tabs.forEach(function(tab, i) {
      var button = document.createElement("button");
      button.textContent = tab.getAttribute("data-tabname");
      button.addEventListener("click", function()
{ selectTab(i); });
      tabList.appendChild(button);
    });
    node.insertBefore(tabList, node.firstChild);

    function selectTab(n) {
      tabs.forEach(function(tab, i) {
        if (i == n)
          tab.style.display = "";
        else
          tab.style.display = "none";
      });
      for (var i = 0; i < tabList.childNodes.length; i++) {
        if (i == n)
```

```
        tabList.childNodes[i].style.background = "red";
    else
        tabList.childNodes[i].style.background = "";
    }
}
selectTab(0);
}
asTabs(document.querySelector("#wrapper"));
</script>
```