

PeomDrag_and_Drag

1. <html>
 - a. <head>
 - i. <script type = "text/javascript">
 1. var b = "blank";
 2. var poem = [
 - i. [
 1. [b,"16","t01_11","06","01","t01_11"],
 2. [b,"17","12","07","02","t02_14"],
 3. [b,"18","13","08","03",b],
 4. [b,"19","t02_14","09","04",b],
 5. [b,"20","15","10","05",b]
 - ii.],
 - iii. [
 1. [b,"16","11","06","01","t01"],
 2. [b,"17","12","07","02","t02"],
 3. [b,"18","13","08","03",b],
 4. [b,"19","14","09","04",b],
 5. [b,"20","15","10","05",b]
 - iv.],
 - v. [
 1. [b,"16","11","06","01","t01"],
 2. [b,"17","12","07","02","t02"],
 3. [b,"18","13","08","03","t03"],
 4. [b,"19","14","09","04","t04"],
 5. [b,"20","15","10","05",b]
 - vi.]
 - b.];
 3. var rowNum = 5;
 4. var colNum = 6;
 5. var picturePosition = new Array(colNum*rowNum);
 6. var pictureContent = new Array(colNum*rowNum);
 7. var level = 0;
 8. var result;
 9. result = new Array(rowNum);
 10. for(var j=0;j<rowNum;j++)
 - a. result[j] = new Array(colNum);
 11. xPos = new Array(colNum+1);

```
12. yPos = new Array(rowNum+1);
```

```
13. var inHand = "blank";
```

```
14. var dragObject = null;
```

```
15. var mouseOffset = null;
```

```
16. var startDrag = 0;
```

```
17. time = 200;
```

```
2. function play(){
```

```
    a. level = 1 + Math.floor((Math.random() * 3));
```

```
    b. showPoem(level);
```

```
    c. registerEvent();
```

```
    d. getCellPositionX();
```

```
    e. getCellPositionY();
```

```
    f. startTimer();
```

```
3. }
```

```
4. function getCellPositionX(){
```

```
    a. for(var i=0;i<colNum;i++){
```

```
        i. var n = i;
```

```
        ii. xPos[i] = document.body.offsetLeft+document.body.clientLeft+
```

```
    b. document.getElementById("table").offsetLeft+document.getElementById("table"
    ).clientLeft+
```

```
    c. document.getElementById("row0").offsetLeft+document.getElementById("row0"
    ).clientLeft+
```

```
    d. document.getElementById("cell"+n).offsetLeft +
        document.getElementById("cell"+n).clientLeft + 1;
```

```
    e. }
```

```
    f. xPos[colNum] = 2*xPos[colNum-1]-xPos[colNum-2];
```

```
5. }
```

```
6. function getCellPositionY(){
```

```
    a. for(var i=0;i<rowNum;i++){
```

```
        1. var n = i*colNum;
```

```
        2. yPos[i] = document.body.offsetTop+document.body.clientTop+
```

```
    b. document.getElementById("table").offsetTop+document.getElementById("table"
```

).clientTop+

- a. document.getElementById("row" + i).offsetTop+document.getElementById("row"+i).clientTop + 1;
- b. //no need to document.getElementById("cell"+n).offsetTop;

ii. }

iii. yPos[rowNum] = 2*yPos[rowNum-1]-yPos[rowNum-2];

7. }

8. function showPoem(i){

- a. var newPoem = randomPoem(i);
- b. result = newPoem;
- c. for(var j = 0;j<rowNum;j++){
 - i. for(var k = 0;k<colNum;k++){
 - 1. n = j*colNum+k;
 - 2. var target = document.getElementById("cell" + n);
 - 3. if(newPoem[j][k]!=b){
 - a. target.innerHTML = getImage(i,n,newPoem[j][k]);
 - b. picturePosition[n] = n;
 - c. pictureContent[n] = newPoem[j][k];
 - d. }
- ii. }
- d. }

9. }

10. function randomPoem(i){

- a. var temp = new Array(rowNum);
- b. for(var j = 0;j<rowNum;j++)
 - i. temp[j] = new Array(colNum);
- c. for(var j = 0;j<rowNum;j++)
 - i. for(var k = 0;k<colNum;k++)
 - 1. temp[j][k]=poem[i-1][j][k];
- d. for(var j = 0;j<rowNum;j++)
 - i. for(var k = 0;k<colNum;k++){

```

        1. var m = Math.floor(Math.random()*rowNum);
        2. var n = Math.floor(Math.random()*colNum);
        3. var tmp = temp[j][k];
        4. temp[j][k] = temp[m][n];
        5. temp[m][n] = tmp;
    ii. }
e. return temp;
11. }

12. function getImage(i,j,ch){
    a. var extension = "";
    b. if(i==1 || i==3)
        i. extension = "png"
    c. else
        i. extension = "jpg"
    d. var img = "<img id = \"\" + j + \"\" src = \"poem\" + i + \"/\" + ch + \".\" + extension +
        \"\"/>";
    e. return img;
13. }

14. function check(){
    a. for(var j=0;j<rowNum;j++){
        i. for(var k=0;k<colNum;k++){
            1. if(result[j][k]!=poem[level-1][j][k]){
                a. alert("You got wrong answer");
                b. return false;}
            ii. }
        b. alert("right!");
        c. return true;
15. }

16. function clearAnswer(){
    a. for(var i = 0;i<colNum*rowNum;i++){
        i. result[i]="";
17. }
18. function getMouseOffset(target, ev){
    a. ev = ev || window.event;
    b. var docPos = getPosition(target);
    c. var mousePos = mouseCoords(ev);
    d. return {x:mousePos.x - docPos.x, y:mousePos.y - docPos.y};
19. }
20. function getPosition(e){
    a. var left = 0;

```

```

b. var top = 0;

c. while (e.offsetParent){
    i. left += e.offsetLeft;
    ii. top += e.offsetTop;
    iii. e = e.offsetParent;
d. }
e. left += e.offsetLeft;
f. top += e.offsetTop;
g. return {x:left, y:top};
21. }

22. function mouseMove(ev){
a. ev = ev || window.event;
b. var mousePos = mouseCoords(ev);

c. if(dragObject){
    i. dragObject.style.position = 'absolute';
    ii. dragObject.style.top = mousePos.y - mouseOffset.y;
    iii. dragObject.style.left = mousePos.x - mouseOffset.x;

    iv. desRow=-1;
    v. desCol=-1;
    vi. //alert(mousePos.x+" "+mousePos.y);
    vii. for(var i=0;i<colNum;i++){
        1. if(mousePos.x > xPos[i] && mousePos.x < xPos[i+1]){
            a. desCol = i;
            b. break;
        2. }
    viii. }

    ix. for(var i=0;i<rowNum;i++){
        1. if(mousePos.y > yPos[i] && mousePos.y < yPos[i+1]){
            a. desRow = i;
            b. break;
        2. }
    x. }
    xi. //alert(desRow + " " + desCol);
    xii. return false;
    xiii. }

23. }

24. function mouseUp(ev){
a. if(desRow!=-1&&desCol!=-1&&result[desRow][desCol]==b&&inhand!=b){

```

```

        i. dragObject.style.position = 'absolute';
        ii. dragObject.style.top = yPos[desRow];
        iii. dragObject.style.left = xPos[desCol];
        iv. //alert("inhand is "+inhand);
        v. result[desRow][desCol] = inhand;
        vi. result[(originalIndex -
            originalIndex%colNum)/colNum][originalIndex%colNum] = b;
        vii. picturePosition[parseInt(this.id)] = desRow*colNum + desCol;
        viii. inhand = b;
        ix. //alert(result[desRow][desCol]);
    b. }
    c. else{
        i. //alert("has");
        ii. //alert("desRow is" + desRow + "desCol" + desCol + "result at
            "+result[desRow][desCol]+" inhand "+inhand);
        iii. dragObject.style.position = 'absolute';
        iv. dragObject.style.top = originalY;
        v. dragObject.style.left = originalX;
    d. }
    e. dragObject = null;
25. }

26. function makeDraggable(item){
    a. if(!item) return;
        i. item.onmousedown = function(ev){
            1. if(dragObject == null){
            2. //alert(this.id);
            3. //alert(this.id.substring(3));
            4. var pictureId = parseInt(this.id);
            5. //alert("lala" + pictureId);
            6. originalIndex = picturePosition[pictureId];
            7. //alert("originalIndex" + originalIndex);
            8. originalX = document.body.offsetLeft+document.body.clientLeft+
                document.getElementById("table").offsetLeft+document.getElementById("table"
                ).clientLeft+
            c. document.getElementById("row0").offsetLeft+document.getElementById("row0"
                ).clientLeft+
            d. document.getElementById("cell"+originalIndex).offsetLeft +
                document.getElementById("cell"+originalIndex).clientLeft + 1;

                1. originalY = document.body.offsetTop+document.body.clientTop+
            e. document.getElementById("table").offsetTop+document.getElementById("table"
                ).clientTop+
            f. document.getElementById("cell"+originalIndex).offsetTop +

```

```
document.getElementById("cell"+originalIndex).clientTop + 1; + 1;
```

- a. //alert(" x is " + originalX + " " + originalY);
- b. //alert(originalIndex);
- c. inhand = pictureContent[pictureId];
- d. dragObject = this;

```
2. }
```

```
3. mouseOffset = getMouseOffset(this, ev);
```

```
4. return false;
```

```
ii. }
```

```
27. }
```

```
28. function mouseCoords(ev){
```

```
    a. if(ev.pageX || ev.pageY){
```

```
        i. return {x:ev.pageX, y:ev.pageY};
```

```
    b. }
```

```
    c. return {
```

```
        i. x:ev.clientX + document.body.scrollLeft - document.body.clientLeft,
```

```
        ii. y:ev.clientY + document.body.scrollTop - document.body.clientTop
```

```
    d. };
```

```
29. }
```

```
30. function registerEvent(){
```

```
    a. for(var i = 0;i<rowNum*colNum;i++){
```

```
        i. try{
```

```
            1. document.getElementById(i).onmouseup = mouseUp;
```

```
            2. document.getElementById(i).onmousemove = mouseMove;
```

```
            3. makeDraggable(document.getElementById(i));
```

```
        ii. }
```

```
        iii. catch(e){ }
```

```
    b. }
```

```
31. }
```

```
32. function startTimer() {
```

```
    a. timerId = window.setInterval( "updateTime()", 1000 );
```

```
33. }
```

```
34. function updateTime(){
```

```
    a. --time;
```

```
    b. document.getElementById("timer").innerHTML = time;
```

```
    c. if(time==0){
```

```
        i. catchCoin = new Number(originAmount - amount);
```

```
        ii. alert("Game Over ! You caught " + catchCoin.toFixed(1) + " dollars");
```

```
        iii. window.clearInterval(timerId);
```

```

        iv. document.getElementById("timer").innerHTML = 0;
        v. window.close();
    d. }
35. }
36. </script>

37. </head>
38. <body onload = "play()">

39. <script type = "text/javascript">
    a. document.writeln("<p> Time Left: <label id=\"timer\"/></p>");
    b. document.writeln("<table id = \"table\" border = \"2\">");

    c. for(var i = 0;i<rowNum*colNum;i++){
        i. var rowIndex = (i - i%colNum)/colNum;
        ii. if(i%colNum==0)
            1. document.write("<tr id = \"row\" + rowIndex + \"\" >");
        iii. document.writeln("<td width = \"50\" height = \"50\" id = \"cell\" + i +
            \"\"></td>");
        iv. if(i%colNum == colNum-1)
            1. document.write("</tr>");
    d. }
    e. document.write("</table>");

    f. function dialog(){
        i. alert("you choose to exit");
        ii. window.close();
    g. }

40. </script>

41. <input type = "button" value = "Finish" onclick = "check()"/>
42. <input type = "button" value = "Reset" onclick = "dialog()"/></input>
43. </body>
44. </html>

```