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2주차 결과레포트

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">

<html>

<head>

<title>15 Puzzle Game</title>

<meta name="generator" content="Microsoft FrontPage 4.0">

<script language="JavaScript">

var completed=true;

function tokenize(sep,str)

{

tokens = new Array(); // ÅäÅ« ¸®½ºÆ®

i=0;

while(1)

{

idx=str.indexOf(sep);

if(idx == -1)

{

if(str.length>0)

{

tokens[i]=str;

}

break;

}

tokens[i++]=str.substring(0,idx); // »õ·Î¿î ÅäÅ« Ãß°¡

str=str.substr(idx+1); // ´ÙÀ½ ÅäÅ«À» Ã£À» ¹®ÀÚ¿­

}

return tokens;

}

function getX(idx)

{

var rest=idx-Math.floor(idx/4)\*4;

return (rest==0)?4:rest;

}

// ÆÛÁñÆÇ¿¡¼­ÀÇ y ÀÚÇ¥

function getY(idx)

{

return Math.floor((idx-1)/4)+1;

}

// ÆÛÁñÆÇ¿¡¼­ÀÇ ÁÂÇ¥(x,y)°¡ ¸î ¹øÂ° Ä­ÀÎÁö¸¦ °è»ê

function getIndex(x,y)

{

return x+(y-1)\*4;

}

// x(È¤Àº y) ÁÂÇ¥¸¦ ÀÔ·Â¹Þ¾Æ ÀÌµ¿ÇÒ ¼ö ÀÖ´Â »õ·Î¿î ÁÂÇ¥¸¦ ±¸ÇÔ

function newDirection(pos)

{

var dir;

if ((pos==2)||(pos==3)) dir=(Math.floor(Math.random()+0.5)==0)?-1:1;

else dir=(pos==1)?1:-1;

return (pos+dir);

}

// ÆÛÁñ Á¶°¢ÀÌ »õ·Î ÀÌµ¿ÇÒ ¼ö ÀÖ´Â Ä­À» °è»ê

function newIndex(idx)

{

var x,y;

x=getX(idx);

y=getY(idx);

if (Math.floor(Math.random()+0.5)==0) x=newDirection(x);

else y=newDirection(y);

return getIndex(x,y);

}

</script>

</head>

<body bgcolor="silver" text="black" link="#0000EE" vlink="#551A8B" alink="red">

<h2 align="center">

15 Puzzle</h2>

<div align="center">

<table border>

<tr>

<td width="50%" align="center">

<script language="JavaScript">

with(window.document)

{

open();

writeln('<table border=1 cellpadding=0 cellspacing=1>');

for(var i=1;i<17;i++)

{

if(i==1 || i==5 || i==9 || i==13 )

{

writeln('<tr>');

}

writeln(' <td width=49 height=49>');

writeln(' <a href=JavaScript:void(0); onclick=checker(',i,') ;>');

writeln(' <img src=',i,'.gif border=0 width=49 height=49 name=i',i,' id=',i,'></a>');

writeln(' </td>');

if(i==4 || i==8 || i==12 || i==16 )

{

writeln('</tr>');

}

}

writeln('</table>');

close();

}

function direction(idx,x,y)

{

var str;

var temp;

if(x != 1)

{

var a1=document.getElementById(idx-1);

str = tokenize('/',a1.src);

temp = str[str.length-1];

if(temp == "16.gif")

{

return idx-1;

}

}

if(x != 4)

{

var a2=document.getElementById(idx+1);

str = tokenize('/',a2.src);

temp = str[str.length-1];

if(temp == "16.gif")

{

return idx+1;

}

}

if(y != 1)

{

var a3=document.getElementById(idx-4);

str = tokenize('/',a3.src);

temp = str[str.length-1];

if(temp == "16.gif")

{

return idx-4;

}

}

if(y != 4)

{

var a4=document.getElementById(idx+4);

str = tokenize('/',a4.src);

temp = str[str.length-1];

if(temp == "16.gif")

{

return idx+4;

}

}

return 0;

}

function shuffle(times)

{

var idx=16;

var cnt=0;

var str;

var a;

var b;

var temp;

var ran;

do

{

cnt++;

b = document.getElementById(idx);

x = getX(idx);

y = getY(idx);

ran = Math.floor(Math.random()\*200)%4+1;

switch(ran)

{

case 1:

if(x != 1)

{

a = document.getElementById(idx-1);

temp = a.src;

a.src = b.src;

b.src = temp;

idx = idx-1;

break;

}

case 2:

if(x != 4)

{

a = document.getElementById(idx+1);

temp = a.src;

a.src = b.src;

b.src = temp;

idx = idx+1;

break;

}

case 3:

if(y != 1)

{

a = document.getElementById(idx-4);

temp = a.src;

a.src = b.src;

b.src = temp;

idx = idx-4;

break;

}

case 4:

if(y != 4)

{

a = document.getElementById(idx+4);

temp = a.src;

a.src = b.src;

b.src = temp;

idx = idx+4;

break;

}

}

}while(cnt<times);

return 0;

}

function checker(idx)

{

var temp;

var x = document.getElementById(idx);

if(direction(idx,getX(idx),getY(idx)) == 0)

{

return 0;

}

var y = document.getElementById(direction(idx,getX(idx),getY(idx)))

{

temp = x.src;

x.src = y.src;

y.src = temp;

}

if(isComplete())

{

alert("Complete!");

}

return 0;

}

function isComplete()

{

var cnt;

var temp;

var str;

for(cnt=1;cnt<17;++cnt)

{

temp = document.getElementById(cnt);

str = tokenize('/',temp.src);

if(str[str.length-1] != cnt+".gif")

{

return 0;

}

}

return 1;

}

</script>

</td>

</tr>

</table>

</div>

<p align="center">

<br>

</p>

<form method="get">

<p align="center">

<input type="button" value="start!" onclick=shuffle(50);></p>

</form>

</body>

</html>