```
<script type='text/javascript'
src='https://ajax.googleapis.com/ajax/libs/jquery/1/jquery.min.js'></script>
<script type='text/javascript' src='head.js'></script>
<div id="mega" style="display:flex;width:450px;height:450px;border:1px solid
black;justify-content: center;align-items:center;flex-direction: column; z-index:100;">
</div>
<script>
$( document ).ready(function()
	{
		myclick();
		//обработчик нажатий на кнопки
	 $( document ).keydown(
	 function( e )
		{
		//alert(e.keyCode); // 38 vverh; 40 vniz
		switch(e.keyCode)
		 {
		 //case 75:myclick2();break;//shift
		 case 13:life();break;//enter
		 case 38:game_expand("n");break;//north
		 case 40:game_expand("s");break;//south
		 case 37:game_expand("w");break;//west
		 case 39:game_expand("e");break;//east
		 case 69:experiment();break;//e
		 }
		}
		 );
	});
var speed=100;
var x_height=7;
var x_width=7;
var mx_height=1;
var mx_width=1;
var redarray=[];
var cell_size;
function experiment()
{
	redarraydelete("p_0_p_6");
	console.log(print_r(redarray));
}
function myclick()
{
	var pointer=document.getElementById("mega");
	var megax,megay;
	megax=pointer.style.width;
	megay=pointer.style.height;
	megax=parseInt(megax);
	megay=parseInt(megay);
```

```
	console.log("megax="+megax+"megay="+megay);
	var stroka="";
	var j,r,g,b,color;
	var i=1;
	var max_x;
	if(x_height>x_width)
	{
		max_x=x_height;
	}
	else
	{
		max_x=x_width;
	}
	cell_size=megax/max_x;
	while(i<=x_height)
	{
		stroka+="<div style='display:flex; z-index:50;' id='row_p_"+i+"'>";
		j=1;
		while(j<=x_width)
		{
			//r=0;
			//g=0;
			//b=255;
			//color="rgb("+r+","+g+","+b+")";
			color="blue";
			stroka+="<div onclick='makelife(\"p_"+i+"\",\"p_"+j+"\")'
id='cell_p_"+i+"_p_"+j+"'
style='width:"+(megax/max_x)+"px;height:"+(megay/max_x)+"px;background-color:"+color+";
display:flex;border: 1px solid red;font-size:"+(megax/(max_x*2))+"px;justify-content:
center;align-items:center; z-index:50;'>";
			stroka+="</div>";
			j++;
		}
		stroka+="</div>";
		i++;
	}
	pointer.innerHTML=stroka;
}
function start()
{
	myclick();
}
/*function makelifeold(i,j)
{
	var pointer=document.getElementById("cell_"+i+"_"+j);
	pointer.style.backgroundColor="red";
	//redarray[redarray.length]=i+"_"+j;
	console.log("test1="+i+"_"+j);
```

```
	redarrayappend(i+"_"+j);
	var spliti=explode("_",i);
	var splitj=explode("_",j);
	if(spliti[1]>1)
	{
		redarrayappend("p_"+(1*spliti[1]-1)+"_"+j);
	}
	if(splitj[1]>1)
	{
		redarrayappend(i+"_"+"p_"+(1*splitj[1]-1));
	}
	if(spliti[1]>1 && splitj[1]>1)
	{
		redarrayappend("p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1));
	}
	if(spliti[1]>1 && splitj[1]<x_width)
	{
		redarrayappend("p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]+1));
	}
	if(splitj[1]<x_width)
	{
		redarrayappend(i+"_"+"p_"+(1*splitj[1]+1));
	}
	if(spliti[1]<x_height)
	{
		redarrayappend("p_"+(1*spliti[1]+1)+"_"+j);
	}
	if(spliti[1]<x_height && splitj[1]>1)
	{
		redarrayappend("p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1));
	}
	if(spliti[1]<x_height && splitj[1]<x_width)
	{
		redarrayappend("p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1));
	}
	var splitj=explode("_",j);
//	console.log("redarray="+redarray);
	console.log(print_r(redarray));
}
*/
function makelife(i,j)
{
	var pointer=document.getElementById("cell_"+i+"_"+j);
	pointer.style.backgroundColor="red";
	//redarray[redarray.length]=i+"_"+j;
	console.log("test1="+i+"_"+j);
	redarrayappend(i+"_"+j);
	var spliti=explode("_",i);
```

```
	var splitj=explode("_",j);
	if((spliti[0]=="m" && spliti[1]==Math.abs(mx_height)) || (spliti[0]=="p" && (spliti[1]==1 ||
spliti[1]==0) && spliti[1]==Math.abs(mx_height)))
	{
		game_expand("n");
	}
	if(spliti[0]=="p" && spliti[1]==Math.abs(x_height))
	{
		game_expand("s");
	}
	if((splitj[0]=="m" && splitj[1]==Math.abs(mx_width)) || (splitj[0]=="p" && (splitj[1]==1 ||
splitj[1]==0) && splitj[1]==Math.abs(mx_width)))
	{
		game_expand("w");
	}
	if(splitj[0]=="p" && splitj[1]==Math.abs(x_width))
	{
		game_expand("e");
	}
	var ms=[];
	sosedi(ms,i,j);
	console.log(print_r(ms));
	var i=0;
	var r,g,b,color;
	r=getRandomInt(0,255);
	g=getRandomInt(0,255);
	b=getRandomInt(0,255);
	color="rgb("+r+","+g+","+b+")";
	while(i<ms.length)
	{
		redarrayappend(ms[i]);
		console.log(ms[i]);
		//document.getElementById("cell_"+ms[i]).style.backgroundColor=color;
		i++;
	}
//	console.log("redarray="+redarray);
	console.log(print_r(redarray));
}
function life()
{
//	console.log(comparered("p_4_p_3","p_3_p_3"));
//	console.log(redarray);
	var i=0;
	var j;
	var split;
	var ms;
	var lifesosedi;
	var newlife=[];
```

```
	var newdead=[];
	while(i<redarray.length)
	{
		split=explode("_",redarray[i]);
		ms=[];
		sosedi(ms,split[0]+"_"+split[1],split[2]+"_"+split[3]);
		console.log("ms="+print_r(ms));
		j=0;
		lifesosedi=0;
		while(j<ms.length)
		{
			console.log("ms[j]="+ms[j]);
			if(document.getElementById("cell_"+ms[j])!=null)
			{

if(document.getElementById("cell_"+ms[j]).style.backgroundColor=="red")
				{
					lifesosedi++;
				}
			}
			j++;
		}

if(document.getElementById("cell_"+redarray[i]).style.backgroundColor=="blue")
		{
			if(lifesosedi==3)
			{
				newlife[newlife.length]=redarray[i];
			}
		}
		else
		{
			if(lifesosedi<2 || lifesosedi>3)
			{
				newdead[newdead.length]=redarray[i];
			}
		}
		i++;
	}
	console.log("newlife="+print_r(newlife));
	i=0;
	while(i<newlife.length)
	{
		split=explode("_",newlife[i]);
		makelife(split[0]+"_"+split[1],split[2]+"_"+split[3]);

		//document.getElementById("cell_"+newlife[i]).style.backgroundColor="red";
		//ms=[];
```

```
		//split=explode("_",newlife[i]);
		//sosedi(ms,split[0]+"_"+split[1],split[2]+"_"+split[3]);
		//j=0;
		//while(j<ms.length)
		//{
		//	redarrayappend(ms[j]);
		//	j++;
		//}

		i++;
	}
	console.log("newdead="+print_r(newdead));
	i=0;
	while(i<newdead.length)
	{
		document.getElementById("cell_"+newdead[i]).style.backgroundColor="blue";

		ms=[];
		split=explode("_",newdead[i]);
		sosedi(ms,split[0]+"_"+split[1],split[2]+"_"+split[3]);
		j=0;
		lifesosedi=0;
		while(j<ms.length)
		{
			if(document.getElementById("cell_"+ms[j])!=null)
			{

if(document.getElementById("cell_"+ms[j]).style.backgroundColor=="red")
				{
					lifesosedi++;
				}
			}
			j++;
		}
		if(lifesosedi==0)
		{
			redarraydelete(newdead[i]);
		}

		i++;
	}
}
function sosedi(ms,i,j)
{
	var spliti=explode("_",i);
	var splitj=explode("_",j);
	if(spliti[1]==0 && splitj[1]==0)
	{
```

```
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
        ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
        ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
}
else if(spliti[0]=="m" && splitj[0]=="m" && spliti[1]==1 && splitj[1]==1)
{
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]);
        ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
}
else if(spliti[1]==0 && splitj[0]=="m" && splitj[1]==1)
{
        ms[ms.length]="m_1_m_2";
        ms[ms.length]="m_1_m_1";
        ms[ms.length]="m_1_p_0";
        ms[ms.length]="p_0_p_0";
        ms[ms.length]="p_1_p_0";
        ms[ms.length]="p_1_m_1";
        ms[ms.length]="p_1_m_2";
        ms[ms.length]="p_0_m_2";
}
else if(spliti[0]=="m" && spliti[1]==1 && splitj[1]==0)
{
        ms[ms.length]="m_2_m_1";
        ms[ms.length]="m_1_m_1";
        ms[ms.length]="p_0_m_1";
        ms[ms.length]="p_0_p_0";
        ms[ms.length]="p_0_p_1";
        ms[ms.length]="m_1_p_1";
        ms[ms.length]="m_2_p_0";
        ms[ms.length]="m_2_p_1";
}
else if(spliti[0]=="m" && spliti[1]==1 && splitj[0]=="p" && splitj[1]>0)
{
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]+1);
```

```
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]);
		ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
	}
	else if(spliti[0]=="p" && spliti[1]==0 && splitj[0]=="p" && splitj[1]>0)
	{
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
		ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
	}
	else if(spliti[0]=="p" && splitj[1]==1 && splitj[0]=="m" && spliti[1]>0)
	{
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]);
		ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
		ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
	}
	else if(spliti[0]=="p" && splitj[1]==0 && splitj[0]=="p" && spliti[1]>0)
	{
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]);
		ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
	}
	else if(spliti[0]=="m" && spliti[1]==1 && splitj[0]=="m" && splitj[1]>1)
	{
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]-1);
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]-1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]);
		ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]-1);
		ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
		ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
```

```
}
else if(spliti[1]==0 && splitj[0]=="m" && splitj[1]>1)
{
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]-1);
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
        ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]-1);
        ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
}
else if(spliti[0]=="m" && spliti[1]>1 && splitj[0]=="m" && splitj[1]==1)
{
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]);
        ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
}
else if(splitj[1]==0 && spliti[0]=="m" && spliti[1]>1)
{
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]);
        ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
}
else if(spliti[0]=="m" && splitj[0]=="m")
{
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]);
        ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]-1);
        ms[ms.length]="m_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
        ms[ms.length]="m_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
}
else if(spliti[0]=="p" && splitj[0]=="m")
{
        ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]+1);
```

```
                ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]-1);
                ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]-1);
                ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]+1);
                ms[ms.length]="p_"+(1*spliti[1]-1)+"_m_"+(1*splitj[1]);
                ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]-1);
                ms[ms.length]="p_"+(1*spliti[1])+"_m_"+(1*splitj[1]+1);
                ms[ms.length]="p_"+(1*spliti[1]+1)+"_m_"+(1*splitj[1]);
        }
        else if(spliti[0]=="m" && splitj[0]=="p")
        {
                ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
                ms[ms.length]="m_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1);
                ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
                ms[ms.length]="m_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]+1);
                ms[ms.length]="m_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]);
                ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
                ms[ms.length]="m_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
                ms[ms.length]="m_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
        }
        else if(spliti[0]=="p" && splitj[0]=="p")
        {
                ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]+1);
                ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]-1);
                ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]-1);
                ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]+1);
                ms[ms.length]="p_"+(1*spliti[1]-1)+"_p_"+(1*splitj[1]);
                ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]-1);
                ms[ms.length]="p_"+(1*spliti[1])+"_p_"+(1*splitj[1]+1);
                ms[ms.length]="p_"+(1*spliti[1]+1)+"_p_"+(1*splitj[1]);
        }
}
function redarrayappend(param)
{
        var split=explode("_",param);
//      console.log("test2="+split);
        var start=0;
        var finish=redarray.length-1;
        var flag=-1;
        var i;
        var stop;
        while(finish-start>1)
        {
                if(comparered(redarray[Math.floor((start+finish)/2)],param)==1)
                {
                        finish=Math.floor((start+finish)/2);
                }
                else if(comparered(redarray[Math.floor((start+finish)/2)],param)==-1)
                {
```

```
                        start=Math.floor((start+finish)/2);
                }
                else if(comparered(redarray[Math.floor((start+finish)/2)],param)==0)
                {
                        flag=1;
                        break;
                }
        }
        if(flag==-1)
        {
//              console.log("redarraystart="+redarray[start]);
//              console.log("redarrayfinish="+redarray[finish]);
//              console.log("param="+param);
//              console.log("start="+start);
//              console.log("finish="+finish);
                if(redarray.length>0 && start>=0 && comparered(redarray[start],param)==0)
                {
                        flag=1;
                }
                else if(redarray.length>0 && finish>=0 &&
comparered(redarray[finish],param)==0)
                {
                        flag=1;
                }
//              console.log("flag="+flag);
        }
//      console.log("flag="+flag);
//      console.log("start="+start);
//      console.log("finish="+finish);
        if(flag==-1)
        {
                redarray[redarray.length]=param;
                if(redarray.length==2)
                {
//                      console.log("test3="+comparered(redarray[0],redarray[1]));
                        if(comparered(redarray[0],redarray[1])==1)
                        {
                                param=redarray[0];
                                redarray[0]=redarray[1];
                                redarray[1]=param;
                        }
                }
                else if(redarray.length==3)
                {
                        i=2;
                        while(i>0)
                        {
                                if(comparered(redarray[i],redarray[i-1])==-1)
```

```
                                {
                                        param=redarray[i];
                                        redarray[i]=redarray[i-1];
                                        redarray[i-1]=param;
                                }
                                i--;
                        }
                }
                else if(redarray.length>3)
                {
                        if(comparered(redarray[finish],param)==-1)
                        {
                                stop=finish;
                        }
                        else
                        {
                                stop=start;
                        }
                        i=redarray.length-1;
//                      console.log("i="+i+"start="+start+"redarray="+redarray+"stop="+stop);
                        while(i>stop+1)
                        {
                                param=redarray[i];
                                redarray[i]=redarray[i-1];
                                redarray[i-1]=param;
                                i--;
                        }
//                      console.log("redarray="+redarray)
                }
        }

}
function redarraydelete(param)
{
        var split=explode("_",param);
//      console.log("test2="+split);
        var start=0;
        var finish=redarray.length-1;
        var flag=-1;
        var i;
        var stop;
        while(finish-start>1)
        {
                if(comparered(redarray[Math.floor((start+finish)/2)],param)==1)
                {
                        finish=Math.floor((start+finish)/2);
                }
                else if(comparered(redarray[Math.floor((start+finish)/2)],param)==-1)
```

```
                {
                        start=Math.floor((start+finish)/2);
                }
                else if(comparered(redarray[Math.floor((start+finish)/2)],param)==0)
                {
                        flag=Math.floor((start+finish)/2);
                        break;
                }
        }
//      console.log("flag="+flag);
//      console.log("start="+start);
//      console.log("finish="+finish);
        if(flag==-1)
        {
//              console.log("redarraystart="+redarray[start]);
//              console.log("redarrayfinish="+redarray[finish]);
//              console.log("param="+param);
                if(redarray.length>0 && start>=0 && comparered(redarray[start],param)==0)
                {
                        flag=start;
                }
                else if(redarray.length>0 && finish>=0 &&
comparered(redarray[finish],param)==0)
                {
                        flag=finish;
                }
//              console.log("flag="+flag);
        }
        if(flag>=0)
        {
                i=flag+1;
                while(i<redarray.length)
                {
                        redarray[i-1]=redarray[i];
                        i++;
                }
                redarray.pop();
        }
}
function comparered(param1,param2)
{
        var split1=explode("_",param1);
        var split2=explode("_",param2);
//      console.log("split1="+split1);
//      console.log("split2="+split2);
        var i=0;
        var a,b;
        while(i<=3)
```

```
	{
		if(i%2==0)
		{
			if(split1[i]=="m")
			{
				a=0;
			}
			else
			{
				a=1;
			}
			if(split2[i]=="m")
			{
				b=0;
			}
			else
			{
				b=1;
			}
		}
		else
		{
			a=parseInt(split1[i]);
			b=parseInt(split2[i]);
		}
		if(a>b)
		{
			return 1;
		}
		else if(b>a)
		{
			return -1;
		}
		else if(i==3)
		{
			return 0;
		}
		i++;
	}
}
function game_expand(direction)
{
	if(direction=="s")
	{
		var pointer=document.getElementById("mega");
		var megax,megay;
		megax=pointer.style.width;
		megay=pointer.style.height;
```

```
megax=parseInt(megax);
megay=parseInt(megay);
var stroka="";
var max_x;
if(x_height>x_width)
{
	max_x=x_height;
}
else
{
	max_x=x_width;
}
var j,r,g,b,color;
var i=x_height+1;
var znak2;
	stroka+="<div style='display:flex;' id='row_p_"+(x_height+1)+"'>";
	j=mx_width;
	while(j<=x_width)
	{
		if(j<0)
		{
			znak2="m";
		}
		else
		{
			znak2="p";
		}
		r=0;
		g=0;
		b=255;
		color="rgb("+r+","+g+","+b+")";
		stroka+="<div
onclick='makelife(\"p_"+Math.abs(i)+"\",\""+znak2+"_"+Math.abs(j)+"\")'
id='cell_p_"+Math.abs(i)+"_"+znak2+"_"+Math.abs(j)+"'
style='width:"+(cell_size)+"px;height:"+(cell_size)+"px;background-color:"+color+";display:fle
x;border: 1px solid red;font-size:"+(megax/(max_x*2))+"px;justify-content:
center;align-items:center;'>";
		stroka+="</div>";
		j++;
	}
	stroka+="</div>";
pointer.innerHTML+=stroka;
x_height++;
pointer.style.height=parseInt(pointer.style.height)+cell_size;
}
if(direction=="n")
{
	var pointer=document.getElementById("mega");
```

```
		var megax,megay;
		megax=pointer.style.width;
		megay=pointer.style.height;
		megax=parseInt(megax);
		megay=parseInt(megay);
		var stroka="";
		var max_x;
		if(x_height>x_width)
		{
			max_x=x_height;
		}
		else
		{
			max_x=x_width;
		}
		var znak;
		var znak2;
		if(mx_height-1<0)
		{
			znak="m";
		}
		else
		{
			znak="p";
		}
		var j,r,g,b,color;
		var i=mx_height-1;
			stroka+="<div style='display:flex;'
id='row_"+znak+"_"+(mx_height-1)+"'>";
			j=mx_width;
			while(j<=x_width)
			{
				if(j<0)
				{
					znak2="m";
				}
				else
				{
					znak2="p";
				}
				r=0;
				g=0;
				b=255;
				color="rgb("+r+","+g+","+b+")";
				stroka+="<div
onclick='makelife(\""+znak+"_"+Math.abs(i)+"\",\""+znak2+"_"+Math.abs(j)+"\")'
id='cell_"+znak+"_"+Math.abs(i)+"_"+znak2+"_"+Math.abs(j)+"'
style='width:"+(cell_size)+"px;height:"+(cell_size)+"px;background-color:"+color+";display:fle
```

```
x;border: 1px solid red;font-size:"+(megax/(max_x*2))+"px;justify-content:
center;align-items:center;'>";
                                        stroka+="</div>";
                                        j++;
                                }
                                stroka+="</div>";
                        pointer.innerHTML=stroka+pointer.innerHTML;
                        mx_height--;
                        pointer.style.height=parseInt(pointer.style.height)+cell_size;
                }
                if(direction=="w")
                {
                        var pointer=document.getElementById("mega");
                        var megax,megay;
                        megax=pointer.style.width;
                        megay=pointer.style.height;
                        megax=parseInt(megax);
                        megay=parseInt(megay);
                        var stroka="";
                        var j,r,g,b,color;
                        var i=mx_height;
                        var max_x;
                        if(x_height>x_width)
                        {
                                max_x=x_height;
                        }
                        else
                        {
                                max_x=x_width;
                        }
                        var pointer_row;
                        var znak;
                        var znak2;
                        if(mx_width-1<0)
                        {
                                znak2="m";
                        }
                        else
                        {
                                znak2="p";
                        }
                        while(i<=x_height)
                        {
                                if(i<0)
                                {
                                        znak="m";
                                }
                                else
```

```
                        {
                                znak="p";
                        }
                        pointer_row=document.getElementById("row_"+znak+"_"+i);
                        stroka="";
                        r=0;
                        g=0;
                        b=255;
                        color="rgb("+r+","+g+","+b+")";
                        stroka+="<div
onclick='makelife(\""+znak+"_"+Math.abs(i)+"\",\""+znak2+"_"+Math.abs(mx_width-1)+"\")'
id='cell_"+znak+"_"+Math.abs(i)+"_"+znak2+"_"+Math.abs(mx_width-1)+"'
style='width:"+(cell_size)+"px;height:"+(cell_size)+"px;background-color:"+color+";display:fle
x;border: 1px solid red;font-size:"+(megax/(max_x*2))+"px;justify-content:
center;align-items:center;'>";
                        stroka+="</div>";
                        pointer_row.innerHTML=stroka+pointer_row.innerHTML;
                        i++;
                }
                mx_width--;
                pointer.style.width=parseInt(pointer.style.width)+cell_size;
        }
        if(direction=="e")
        {
                var pointer=document.getElementById("mega");
                var megax,megay;
                megax=pointer.style.width;
                megay=pointer.style.height;
                megax=parseInt(megax);
                megay=parseInt(megay);
                var stroka="";
                var j,r,g,b,color;
                var i=mx_height;
                var max_x;
                if(x_height>x_width)
                {
                        max_x=x_height;
                }
                else
                {
                        max_x=x_width;
                }
                var pointer_row;
                var znak;
                while(i<=x_height)
                {
                        if(i<0)
                        {
```

```
                        znak="m";
                    }
                    else
                    {
                        znak="p";
                    }
                    pointer_row=document.getElementById("row_"+znak+"_"+i);
                    stroka="";
                    r=0;
                    g=0;
                    b=255;
                    color="rgb("+r+","+g+","+b+")";
                    stroka+="<div
onclick='makelife(\""+znak+"_"+Math.abs(i)+"\",\"p_"+Math.abs(x_width+1)+"\")'
id='cell_"+znak+"_"+Math.abs(i)+"_p_"+Math.abs(x_width+1)+"'
style='width:"+(cell_size)+"px;height:"+(cell_size)+"px;background-color:"+color+";display:fle
x;border: 1px solid red;font-size:"+(megax/(max_x*2))+"px;justify-content:
center;align-items:center;'>";
                    stroka+="</div>";
                    pointer_row.innerHTML+=stroka;
                    i++;
                }
                x_width++;
                pointer.style.width=parseInt(pointer.style.width)+cell_size;
        }
}
</script>
```