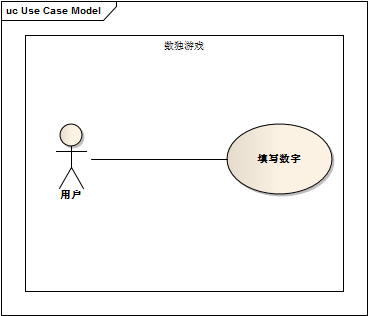
Tizen课程项目报告  
《数独游戏》

## 项目简介

数独是一种逻辑数组谜题。 “数独”是一个9×9的方阵，它是由九个“九宫格”（图中黑色实线围住的3×3的方阵）构成的，每个九宫格又是由九个小格子构成的，在空白的小格子里填上1~9中的数字，使得每个数字在“九宫格”的每行、每列、每个九宫格中均只出现一次。 游戏会从一个部分带有数字的九宫格开始。

## 需求分析



## 概要设计

数独游戏基于TIZEN web project开发，主要使用了Html与Javascript技术。

|  |  |
| --- | --- |
| 接口 | 接口功能 |
| GameInit | 初始化游戏 |
| ChangeValue | 修改数字 |

## 核心算法

数独游戏核心算法代码如下图所示。

|  |
| --- |
| /\*\*  \* Main类  \*\*/  if(LGlobal.canTouch){  LGlobal.stageScale = LStageScaleMode.EXACT\_FIT;  LSystem.screen(LStage.FULL\_SCREEN);  }  function doScroll() {  if(window.pageYOffset === 0) {  window.scrollTo(0, 1);  }  }  window.onload = function() {  setTimeout(doScroll, 100);  init(50,"legend",480,800,main,LEvent.INIT);  }  window.onorientationchange = function() {  setTimeout(doScroll, 100);  };  window.onresize = function() {  setTimeout(doScroll, 100);  }  /\*\*层变量\*/  //显示进度条所用层  var loadingLayer;  //游戏底层  var backLayer;  var stageLayer;  var labelLayer;  /\*\*数组变量\*/  //图片path数组  var imgData = [  ];  //读取完的图片数组  var imglist = {};  var window\_back,window\_mini;  var imageArray;  var labelText,nameText,btn\_update,rankingLayer;  var stageIndex = 0;  var startTime,stages,times,stagetype;  var btnReturn;  var focus;  var nowNum,selectLayer,stageNumList;  function main(){  LGlobal.stageScale = LStageScaleMode.SHOW\_ALL;  LSystem.screen(LStage.FULL\_SCREEN);  loadingLayer = new LoadingSample1();  addChild(loadingLayer);  LLoadManage.load(  imgData,  function(progress){  loadingLayer.setProgress(progress);  },  gameInit  );  }  function gameInit(result){  //LGlobal.setDebug(true);  imglist = result;  removeChild(loadingLayer);  loadingLayer = null;  //游戏底层添加  backLayer = new LSprite();  addChild(backLayer);  gameLogoShow();  }  function gameStart(index){  backLayer.removeAllChild();  backLayer.die();  stageIndex = index;    stageLayer = new LSprite();  backLayer.addChild(stageLayer);  labelLayer = new LSprite();  backLayer.addChild(labelLayer);    initLabel();  initStage();  initButton();  }  function gameLogoShow(){  var layer = new GameLogo();  backLayer.addChild(layer);  }  function menuShow(event){  backLayer.removeAllChild();  backLayer.die();    var layer = new GameMenu();  backLayer.addChild(layer);  }  function gameClearShow(){  stageLayer.mouseChildren = false;  backLayer.removeEventListener(LEvent.ENTER\_FRAME,onframe);  var layer = new GameClear();  backLayer.addChild(layer);  }  function initStage(){  startTime = new Date().getTime();  stageNumList = new Array();  var numlist = getNumList();  var bitmapData = new LBitmapData(imglist["back"]);  var bitmap = new LBitmap(bitmapData);  stageLayer.addChild(bitmap);  var stage = stageMenu[stageIndex];  for(var i=0;i<9;i++){  stageNumList.push([]);  for(var j=0;j<9;j++){  var num = new Num(numlist[i][j],numlist[i][j] == 0 ? selectShow : null);  num.x = j\*40 + 80;  num.y = i\*40 + 100;  if(stage.flag == 1){  num.x += (j/3>>>0)\*5 - 5;  num.y += (i/3>>>0)\*5 - 5;  }  stageLayer.addChild(num);  stageNumList[i].push(num);  }  }    backLayer.addEventListener(LEvent.ENTER\_FRAME,onframe);  }  function onframe(){  var str = (new Date().getTime() - startTime) + "";  times.text = str.substr(0,str.length - 3) + "." + str.substr(str.length - 3,1);  }  function selectShow(event,numObject){  stageLayer.mouseChildren = false;  nowNum = numObject;  selectLayer = new LSprite();  backLayer.addChild(selectLayer);  var window\_back = new LSprite();  window\_back.graphics.drawRect(1,"#000",[0,0,LGlobal.width,LGlobal.height],true,"#000");  window\_back.alpha = 0.7;  selectLayer.addChild(window\_back);  //window.open(LGlobal.canvasObj.toDataURL());  window\_mini = new LSprite();  var bitmapData = new LBitmapData(imglist["window\_mini"]);  var bitmap = new LBitmap(bitmapData);  window\_mini.addChild(bitmap);  window\_mini.x = (LGlobal.width - window\_mini.getWidth())\*0.5;  window\_mini.y = (LGlobal.height + 320 - window\_mini.getHeight())\*0.5;  selectLayer.addChild(window\_mini);  window\_mini.scaleX = 0.1;  window\_mini.scaleY = 0.1;  LTweenLite.to(window\_mini,0.3,  {  scaleX:1,  scaleY:1,  onUpdate:function(){  window\_mini.x = (LGlobal.width - window\_mini.getWidth()\*window\_mini.scaleX)\*0.5;  window\_mini.y = (LGlobal.height + 320 - window\_mini.getHeight()\*window\_mini.scaleY)\*0.5;  },  onComplete:showWindow,  ease:Sine.easeIn  }  );  }  function showWindow(){  window\_mini.scaleX = 1;  window\_mini.scaleY = 1;  window\_mini.x = (LGlobal.width - window\_mini.getWidth())\*0.5;  window\_mini.y = (LGlobal.height + 320 - window\_mini.getHeight())\*0.5;  for(var i=0;i<3;i++){  for(var j=0;j<3;j++){  var num = new Num(i\*3+j + 1,changeValue);  num.x = j\*40 + 40;  num.y = i\*40 + 40;  window\_mini.addChild(num);  }  }  var closeButton = new LSprite();  var closeBitmap = new LBitmap(new LBitmapData(imglist["close"]));  closeButton.addChild(closeBitmap);  closeButton.x = closeButton.y = -20;  window\_mini.addChild(closeButton);  closeButton.addEventListener(LMouseEvent.MOUSE\_UP,function(event){  stageLayer.mouseChildren = true;  backLayer.removeChild(selectLayer);  });  }  function changeValue(event,obj){  nowNum.changeValue(obj.value);  backLayer.removeChild(selectLayer);  stageLayer.mouseChildren = true;  var win = checkWin();  if(win)gameClearShow();  } |

## 软件功能界面

