Федеральное государственное бюджетное образовательное учреждение   
высшего образования

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| Gerb-BMSTU_01 | «Московский государственный технический университет  им. Н.Э. Баумана (национальный исследовательский университет)» (МГТУ им. Н.Э. Баумана) |

ФАКУЛЬТЕТ – Информатика и управления

КАФЕДРА – Информационные системы и телекоммуникации

РАСЧЁТНО-ПОЯСНИТЕЛЬНАЯ ЗАПИСКА

к курсовой работе на тему

«Разработка прототипа полотна веб-редактора draw.io с использованием технологии TeaVM»

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Москва, 2017

package com.mydomain.sidebar;

import org.teavm.jso.dom.events.MouseEventTarget;

import org.teavm.jso.dom.html.HTMLDocument;

import org.teavm.jso.dom.html.HTMLButtonElement;

import org.teavm.jso.dom.html.HTMLElement;

public class Client {

public static HTMLDocument document = HTMLDocument.current();

public static HTMLElement block = document.createElement("div");

public static HTMLElement sidebar = document.createElement("div");

//Кнопки

public static HTMLButtonElement arrangebutton = document.getElementById("ArnBtn").cast();

public static HTMLButtonElement arrangebutton1 = document.getElementById("ArnBtn1").cast();

public static HTMLButtonElement arrangebutton2 = document.getElementById("ArnBtn2").cast();

public static HTMLButtonElement arrangebutton3 = document.getElementById("ArnBtn3").cast();

public static HTMLButtonElement arrangebutton4 = document.getElementById("ArnBtn4").cast();

public static HTMLButtonElement arrangebutton5 = document.getElementById("ArnBtn5").cast();

//Квадратики вокруг фигур

public static HTMLElement iteam = document.createElement("button");

public static HTMLElement iteam1 = document.createElement("button");

public static HTMLElement iteam2 = document.createElement("button");

public static HTMLElement iteam3 = document.createElement("button");

public static HTMLElement iteam4 = document.createElement("button");

public static HTMLElement iteam5 = document.createElement("button");

//Рисунок фигруы в панели фигур

public static HTMLElement figurediv = document.createElement("div");

public static HTMLElement figurediv1 = document.createElement("div");

public static HTMLElement figurediv2= document.createElement("div");

public static HTMLElement figurediv3 = document.createElement("div");

public static HTMLElement figurediv4 = document.createElement("div");

public static HTMLElement figurediv5 = document.createElement("div");

//Область фигур на листе

public static HTMLElement fig = document.createElement("g");

public static HTMLElement fig1 = document.createElement("g");

public static HTMLElement fig2 = document.createElement("g");

public static HTMLElement fig3 = document.createElement("g");

public static HTMLElement fig4 = document.createElement("g");

public static HTMLElement fig5 = document.createElement("g");

//Область рисования

public static HTMLElement svg1 = document.createElement("svg");

public static HTMLElement backgroundContainer1 = document.createElement("div");

public static HTMLElement background1 = document.createElement("div");

public static void main(String[] args) {

document.getBody().setAttribute("class", "geEditor");

//Кнопки

((MouseEventTarget) iteam.cast()).listenClick(evt -> txtBtn());

((MouseEventTarget) iteam1.cast()).listenClick(evt -> txtBtn1());

((MouseEventTarget) iteam2.cast()).listenClick(evt -> txtBtn2());

((MouseEventTarget) iteam3.cast()).listenClick(evt -> txtBtn3());

((MouseEventTarget) iteam4.cast()).listenClick(evt -> txtBtn4());

((MouseEventTarget) iteam5.cast()).listenClick(evt -> txtBtn5());

//Картинки

image(figurediv, "background-position: 0% 0%;", iteam);

image(figurediv1, "background-position: 30% 0%;", iteam1);

image(figurediv2, "background-position: 60% 0%;", iteam2);

image(figurediv3, "background-position: 0% 38%;", iteam3);

image(figurediv4, "background-position: 31% 38%;", iteam4);

image(figurediv5, "background-position: 60% 38%;", iteam5);

//Область вокруг картинки

iTem(iteam, "geItem", "overflow: hidden; width: 65px; height: 65px; padding: 1px;", "javascript: void(0);", sidebar);

iTem(iteam1, "geItem", "overflow: hidden; width: 65px; height: 65px; padding: 1px;", "javascript: void(0);", sidebar);

iTem(iteam2, "geItem", "overflow: hidden; width: 65px; height: 65px; padding: 1px;", "javascript: void(0);", sidebar);

iTem(iteam3, "geItem", "overflow: hidden; width: 65px; height: 65px; padding: 1px;", "javascript: void(0);", sidebar);

iTem(iteam4, "geItem", "overflow: hidden; width: 65px; height: 65px; padding: 1px;", "javascript: void(0);", sidebar);

iTem(iteam5, "geItem", "overflow: hidden; width: 65px; height: 65px; padding: 1px;", "javascript: void(0);", sidebar);

insert(sidebar, "geSidebar", "touch-action: none;", "", "", block);

insert(block, "", "display: block;", "", "", null);

//Рисунок фигур на листе

//rect("100.6", "142.4", "144px", "72px", "", "", "#ffffff", "#000000", "1.2", "1.2 1.2", "all", fig);

//Область фигур на листе

insert(fig, "geG", "visibility: visible; cursor: move;", "", "translate(0.5,0.5)", svg1);

insert(fig1, "geG1", "visibility: visible; cursor: move;", "", "translate(0.5,0.5)", svg1);

insert(fig2, "geG2", "visibility: visible; cursor: move;", "", "translate(0.5,0.5)", svg1);

insert(fig3, "geG3", "visibility: visible; cursor: move;", "", "translate(0.5,0.5)", svg1);

insert(fig4, "geG4", "visibility: visible; cursor: move;", "", "translate(0.5,0.5)", svg1);

insert(fig5, "geG5", "visibility: visible; cursor: move;", "", "translate(0.5,0.5)", svg1);

//Область рисования

insert(background1, "geBackgroundPage", "", "", "", backgroundContainer1);

insert(svg1, "", "left: 100px; top: 0px; display: block; min-width: 800px; min-height: 500px; position: absolute; background-image: none;", "", "", backgroundContainer1);

insert(backgroundContainer1, "geDiagramContainer geDiagramBackdrop", "right: 0px; left: 0px; top: 87px; bottom: 40px; touch-action: none; overflow: auto;", "0", "", null);

}

public static void image(HTMLElement Element, String bgpos, HTMLElement Child){

Element.setAttribute("style", bgpos);

Element.setAttribute("class", "bgimg");

Child.appendChild(Element);

}

public static HTMLElement rect(String X, String Y, String Width, String Height, String RX, String RY, String Fill, String Stroke, String Stroke\_width, String Stroke\_dasharray, String Pointer\_events, HTMLElement Child){

HTMLElement figimg = document.createElement("rect");

figimg.setAttribute("class", "geRect");

figimg.setAttribute("x", X);

figimg.setAttribute("y", Y);

figimg.setAttribute("width", Width);

figimg.setAttribute("height", Height);

figimg.setAttribute("rx", RX);

figimg.setAttribute("ry", RY);

figimg.setAttribute("fill", Fill);

figimg.setAttribute("stroke", Stroke);

figimg.setAttribute("stroke-width", Stroke\_width);

figimg.setAttribute("stroke-dasharray", Stroke\_dasharray);

figimg.setAttribute("pointer\_event", Pointer\_events);

Child.appendChild(figimg);

return figimg;

}

public static HTMLElement rect1(String X, String Y, String Width, String Height, String RX, String RY, String Fill, String Stroke, String Stroke\_width, String Stroke\_dasharray, String Pointer\_events, HTMLElement Child){

HTMLElement figimg = document.createElement("rect1");

figimg.setAttribute("class", "geRect1");

figimg.setAttribute("x", X);

figimg.setAttribute("y", Y);

figimg.setAttribute("width", Width);

figimg.setAttribute("height", Height);

figimg.setAttribute("rx", RX);

figimg.setAttribute("ry", RY);

figimg.setAttribute("fill", Fill);

figimg.setAttribute("stroke", Stroke);

figimg.setAttribute("stroke-width", Stroke\_width);

figimg.setAttribute("stroke-dasharray", Stroke\_dasharray);

figimg.setAttribute("pointer\_event", Pointer\_events);

Child.appendChild(figimg);

return figimg;

}

public static HTMLElement ellipse(String CX, String CY, String RX, String RY, String Fill, String Stroke, String Stroke\_width, String Stroke\_dasharray, String Pointer\_events, HTMLElement Child){

HTMLElement figimg2 = document.createElement("ellipse");

figimg2.setAttribute("class", "geEllipse");

figimg2.setAttribute("cx", CX);

figimg2.setAttribute("cy", CY);

figimg2.setAttribute("rx", RX);

figimg2.setAttribute("ry", RY);

figimg2.setAttribute("fill", Fill);

figimg2.setAttribute("stroke", Stroke);

figimg2.setAttribute("stroke-width", Stroke\_width);

figimg2.setAttribute("stroke-dasharray", Stroke\_dasharray);

figimg2.setAttribute("pointer\_event", Pointer\_events);

Child.appendChild(figimg2);

return figimg2;

}

public static HTMLElement path(String D, String Fill, String Stroke, String Stroke\_width, String Stroke\_miterlimit, String Stroke\_dasharray, String Pointer\_events, HTMLElement Child){

HTMLElement figimg3 = document.createElement("path");

figimg3.setAttribute("class", "gePath");

figimg3.setAttribute("d", D);

figimg3.setAttribute("fill", Fill);

figimg3.setAttribute("stroke", Stroke);

figimg3.setAttribute("stroke-width", Stroke\_width);

figimg3.setAttribute("stroke-miterlimit", Stroke\_miterlimit);

figimg3.setAttribute("stroke-dasharray", Stroke\_dasharray);

figimg3.setAttribute("pointer\_event", Pointer\_events);

Child.appendChild(figimg3);

return figimg3;

}

public static void iTem(HTMLElement Element, String Class, String Style, String Href, HTMLElement Child) {

Element.setAttribute("class", Class);

Element.setAttribute("style", Style);

Element.setAttribute("href", Href);

if (Child != null)

Child.appendChild(Element);

else

document.getBody().appendChild(Element);

}

public static void insert(HTMLElement Element, String Class, String Style, String Tabindex, String Transform, HTMLElement Child) {

Element.setAttribute("class", Class);

Element.setAttribute("style", Style);

Element.setAttribute("tabindex", Tabindex);

Element.setAttribute("transform", Transform);

if (Child != null)

Child.appendChild(Element);

else

document.getBody().appendChild(Element);

}

public static void txtBtn() {

rect("100.6", "142.4", "144", "72", "0", "0", "#ffffff", "#000000", "1.2", "1.2 1.2", "all", fig);

}

public static void txtBtn1() {

rect1("250.6", "142.4", "144", "72", "10", "10", "#ffffff", "#000000", "1", "1 1", "all", fig1);

}

public static void txtBtn2() {

ellipse("500", "178", "72", "48", "#ffffff", "#000000", "1.2", "1.2 1.2", "all", fig2);

}

public static void txtBtn3() {

path("M 183.6 406.4 L 212.4 334.4 L 327.6 334.4 L 298.8 406.4 Z", "#ffffff", "#000000", "1.2", "10", "1.2 1.2", "all", fig3);

}

public static void txtBtn4() {

path("M 231.6 422.4 L 303.6 470.4 L 231.6 518.4 Z", "#ffffff", "#000000", "1.2", "10", "1.2 1.2", "all", fig4);

}

public static void txtBtn5() {

path("M 431.6 341.6 C 431.6 316 503.6 316 503.6 341.6 L 503.6 399.2 C 503.6 424.8 431.6 424.8 431.6 399.2 Z", "#ffffff", "#000000", "1.2", "10", "1.2 1.2", "all", fig5);

}

}

