#include <windows.h>

#include <stdbool.h>

LRESULT CALLBACK WndProc(HWND, UINT, WPARAM, LPARAM);

int WINAPI WinMain(HINSTANCE hInstance, HINSTANCE hPrevInstance, PSTR szCmdLine, int iCmdShow) {

static char szAppName[] = "HelloWin";

HWND hwnd;

MSG msg;

WNDCLASSEX wndclass;

wndclass.cbSize = sizeof(wndclass);

wndclass.style = CS\_HREDRAW | CS\_VREDRAW;

wndclass.lpfnWndProc = WndProc;

wndclass.cbClsExtra = 0;

wndclass.cbWndExtra = 0;

wndclass.hInstance = hInstance;

wndclass.hIcon = LoadIcon(NULL, IDI\_APPLICATION);

wndclass.hIconSm = LoadIcon(NULL, IDI\_APPLICATION);

wndclass.hCursor = LoadCursor(NULL, IDC\_ARROW);

wndclass.hbrBackground = (HBRUSH)GetStockObject(WHITE\_BRUSH);

wndclass.lpszMenuName = NULL;

wndclass.lpszClassName = szAppName;

RegisterClassEx(&wndclass);

hwnd = CreateWindow(szAppName,

"Lab #2 Program",

WS\_OVERLAPPEDWINDOW,

CW\_USEDEFAULT,

CW\_USEDEFAULT,

CW\_USEDEFAULT,

CW\_USEDEFAULT,

NULL,

NULL,

hInstance,

NULL);

ShowWindow(hwnd, iCmdShow);

//UpdateWindow(hwnd);

while (GetMessage(&msg, NULL, 0, 0)) {

TranslateMessage(&msg);

DispatchMessage(&msg);

}

return msg.wParam;

}

LRESULT CALLBACK WndProc(HWND hwnd, UINT iMsg, WPARAM wParam, LPARAM lParam) {

HDC hdc;

PAINTSTRUCT ps;

RECT rect;

HBRUSH hBrush;

POINT pt;

POINT points1[4] = {

{ 541, 213 },

{ 661, 474 },

{ 426, 474 },

{ 541, 213 }

};

POINT points2[4] = {

{ 426, 474 },

{ 373, 474 },

{ 373, 294 },

{ 426, 474 }

};

POINT points3[4] = {

{ 534, 180 },

{ 550, 180 },

{ 542, 190 },

{ 534, 180 }

};

static bool mst;

switch (iMsg) {

case WM\_CREATE:

SetTimer(hwnd, 1, 1000, 0);

mst = false;

break;

case WM\_TIMER:

//InvalidateRect(hwnd, NULL, TRUE);

UpdateWindow(hwnd);

hdc = GetDC(hwnd);

if (mst)

{

for (int i = 0; i < 30; i += 1) {

InvalidateRect(hwnd, NULL, TRUE);

UpdateWindow(hwnd);

HPEN hPen03 = CreatePen(PS\_SOLID, 1, RGB(0, 0, 0));

SelectObject(hdc, hPen03);

hBrush = CreateSolidBrush(RGB(0, 0, 0));

SelectObject(hdc, hBrush);

//mustaches

MoveToEx(hdc, 553, 184, &pt);

LineTo(hdc, 600, 176 + i);

MoveToEx(hdc, 553, 185, &pt);

LineTo(hdc, 600, 186 + i);

MoveToEx(hdc, 553, 186, &pt);

LineTo(hdc, 600, 196 + i);

MoveToEx(hdc, 533, 184, &pt);

LineTo(hdc, 486, 176 + i);

MoveToEx(hdc, 533, 185, &pt);

LineTo(hdc, 486, 186 + i);

MoveToEx(hdc, 533, 186, &pt);

LineTo(hdc, 486, 196 + i);

//eyes

hBrush = CreateSolidBrush(RGB(0, 0, 0));

SelectObject(hdc, hBrush);

Ellipse(hdc, 524, 166, 531, 173);

Ellipse(hdc, 554, 166, 561, 173);

//bowl

hBrush = CreateSolidBrush(RGB(77, 166, 255));

SelectObject(hdc, hBrush);

POINT points4[5] = {

{ 705 + i, 406 },

{ 836 + i, 406 },

{ 813 + i, 463 },

{ 730 + i, 463 },

{ 705 + i, 406 }

};

Polygon(hdc, points4, 5);

SetBkColor(hdc, RGB(77, 166, 255));

TextOut(hdc, 760 + i, 425, "CAT", 3);

//flower

hBrush = CreateSolidBrush(RGB(255, 179, 217));

SelectObject(hdc, hBrush);

Pie(hdc, 730 + i, 252, 808 + i, 306, 750 + i, 251, 790 + i, 251);

HPEN hPen0 = CreatePen(PS\_SOLID, 1, RGB(41, 163, 41));

SelectObject(hdc, hPen0);

MoveToEx(hdc, 770 + i, 306, &pt);

LineTo(hdc, 770 + i, 408);

MoveToEx(hdc, 769 + i, 278, &pt);

LineTo(hdc, 769 + i, 259);

MoveToEx(hdc, 770 + i, 360, &pt);

LineTo(hdc, 750 + i, 340);

MoveToEx(hdc, 770 + i, 360, &pt);

LineTo(hdc, 790 + i, 340);

HPEN hPen01 = GetStockObject(BLACK\_PEN);

SelectObject(hdc, hPen01);

hBrush = CreateSolidBrush(RGB(204, 0, 102));

SelectObject(hdc, hBrush);

Ellipse(hdc, 762 + i, 250, 776 + i, 260);

DeleteObject(hBrush);

Sleep(30);

}

}

else

{

for (int i = 0; i < 30; i += 1) {

InvalidateRect(hwnd, NULL, TRUE);

UpdateWindow(hwnd);

HPEN hPen03 = CreatePen(PS\_SOLID, 1, RGB(0, 0, 0));

SelectObject(hdc, hPen03);

hBrush = CreateSolidBrush(RGB(0, 0, 0));

SelectObject(hdc, hBrush);

//mustaches

MoveToEx(hdc, 553, 184, &pt);

LineTo(hdc, 600, 176 - i);

MoveToEx(hdc, 553, 185, &pt);

LineTo(hdc, 600, 186 - i);

MoveToEx(hdc, 553, 186, &pt);

LineTo(hdc, 600, 196 - i);

MoveToEx(hdc, 533, 184, &pt);

LineTo(hdc, 486, 176 - i);

MoveToEx(hdc, 533, 185, &pt);

LineTo(hdc, 486, 186 - i);

MoveToEx(hdc, 533, 186, &pt);

LineTo(hdc, 486, 196 - i);

//eyes

hBrush = CreateSolidBrush(RGB(0, 0, 0));

SelectObject(hdc, hBrush);

Ellipse(hdc, 524, 166, 531, 162);

Ellipse(hdc, 554, 166, 561, 162);

//bowl

hBrush = CreateSolidBrush(RGB(77, 166, 255));

SelectObject(hdc, hBrush);

POINT points4[5] = {

{ 705 - i, 406 },

{ 836 - i, 406 },

{ 813 - i, 463 },

{ 730 - i, 463 },

{ 705 - i, 406 }

};

Polygon(hdc, points4, 5);

SetBkColor(hdc, RGB(77, 166, 255));

TextOut(hdc, 760-i, 425, "CAT", 3);

//flower

hBrush = CreateSolidBrush(RGB(255, 179, 217));

SelectObject(hdc, hBrush);

Pie(hdc, 730 - i, 252, 808 - i, 306, 750 - i, 251, 790 - i, 251);

HPEN hPen0 = CreatePen(PS\_SOLID, 1, RGB(41, 163, 41));

SelectObject(hdc, hPen0);

MoveToEx(hdc, 770 - i, 306, &pt);

LineTo(hdc, 770 - i, 408);

MoveToEx(hdc, 769 - i, 278, &pt);

LineTo(hdc, 769 - i, 259);

MoveToEx(hdc, 770 - i, 360, &pt);

LineTo(hdc, 750 - i, 340);

MoveToEx(hdc, 770 - i, 360, &pt);

LineTo(hdc, 790 - i, 340);

HPEN hPen01 = GetStockObject(BLACK\_PEN);

SelectObject(hdc, hPen01);

hBrush = CreateSolidBrush(RGB(204, 0, 102));

SelectObject(hdc, hBrush);

Ellipse(hdc, 762 - i, 250, 776 - i, 260);

DeleteObject(hBrush);

Sleep(30);

}

}

ReleaseDC(hwnd, hdc);

mst = !mst;

break;

case WM\_PAINT:

hdc = BeginPaint(hwnd, &ps);

GetClientRect(hwnd, &rect);

//billboard

hBrush = CreateSolidBrush(RGB(204, 230, 255));

SelectObject(hdc, hBrush);

RoundRect(hdc, 246, 23, 830, 118, 737, 18);

SetBkColor(hdc, RGB(204, 230, 255));

TextOut(hdc, 340, 55, "Laboratory work #2 of student from TI-155 group Zvercova Xenia", 62);

//cat

hBrush = CreateSolidBrush(RGB(255, 235, 204));

SelectObject(hdc, hBrush);

//face

Ellipse(hdc, 503, 150, 581, 214);

//mouth

Arc(hdc, 525, 180, 560, 210, 520, 200, 570, 201);

//trunk

Polyline(hdc, points1, 4);

//tail

Polyline(hdc, points2, 4);

//nose

Polyline(hdc, points3, 4);

//ears

MoveToEx(hdc, 505, 170, &pt);

LineTo(hdc, 505, 135);

LineTo(hdc, 530, 153);

MoveToEx(hdc, 575, 166, &pt);

LineTo(hdc, 575, 135);

LineTo(hdc, 553, 153);

//stripes - trunk

SetBkColor(hdc, RGB(255, 255, 255));

HPEN hPen1 = CreatePen(PS\_DOT, 1, RGB(230, 92, 0));

SelectObject(hdc, hPen1);

MoveToEx(hdc, 528, 246, &pt);

LineTo(hdc, 555, 246);

MoveToEx(hdc, 520, 266, &pt);

LineTo(hdc, 564, 266);

MoveToEx(hdc, 510, 286, &pt);

LineTo(hdc, 574, 286);

MoveToEx(hdc, 500, 306, &pt);

LineTo(hdc, 584, 306);

MoveToEx(hdc, 491, 326, &pt);

LineTo(hdc, 594, 326);

MoveToEx(hdc, 482, 346, &pt);

LineTo(hdc, 604, 346);

MoveToEx(hdc, 474, 366, &pt);

LineTo(hdc, 612, 366);

MoveToEx(hdc, 464, 386, &pt);

LineTo(hdc, 622, 386);

MoveToEx(hdc, 456, 406, &pt);

LineTo(hdc, 630, 406);

MoveToEx(hdc, 448, 426, &pt);

LineTo(hdc, 638, 426);

MoveToEx(hdc, 440, 446, &pt);

LineTo(hdc, 646, 446);

MoveToEx(hdc, 433, 466, &pt);

LineTo(hdc, 655, 466);

//stripes - tail

MoveToEx(hdc, 373, 337, &pt);

LineTo(hdc, 392, 358);

MoveToEx(hdc, 373, 367, &pt);

LineTo(hdc, 400, 388);

MoveToEx(hdc, 373, 397, &pt);

LineTo(hdc, 411, 418);

MoveToEx(hdc, 373, 427, &pt);

LineTo(hdc, 421, 448);

MoveToEx(hdc, 373, 457, &pt);

LineTo(hdc, 423, 473);

//stripes - ears

MoveToEx(hdc, 505, 135, &pt);

LineTo(hdc, 512, 165);

MoveToEx(hdc, 505, 135, &pt);

LineTo(hdc, 520, 155);

MoveToEx(hdc, 575, 135, &pt);

LineTo(hdc, 561, 155);

MoveToEx(hdc, 575, 135, &pt);

LineTo(hdc, 571, 160);

//stripes - trunk

HPEN hPen2 = CreatePen(PS\_SOLID, 1, RGB(230, 92, 0));

SelectObject(hdc, hPen2);

MoveToEx(hdc, 536, 236, &pt);

LineTo(hdc, 546, 236);

MoveToEx(hdc, 528, 256, &pt);

LineTo(hdc, 555, 256);

MoveToEx(hdc, 520, 276, &pt);

LineTo(hdc, 564, 276);

MoveToEx(hdc, 510, 296, &pt);

LineTo(hdc, 574, 296);

MoveToEx(hdc, 500, 316, &pt);

LineTo(hdc, 584, 316);

MoveToEx(hdc, 491, 336, &pt);

LineTo(hdc, 594, 336);

MoveToEx(hdc, 482, 356, &pt);

LineTo(hdc, 604, 356);

MoveToEx(hdc, 474, 376, &pt);

LineTo(hdc, 612, 376);

MoveToEx(hdc, 464, 396, &pt);

LineTo(hdc, 622, 396);

MoveToEx(hdc, 456, 416, &pt);

LineTo(hdc, 630, 416);

MoveToEx(hdc, 448, 436, &pt);

LineTo(hdc, 638, 436);

MoveToEx(hdc, 440, 456, &pt);

LineTo(hdc, 646, 456);

//stripes - tail

MoveToEx(hdc, 373, 322, &pt);

LineTo(hdc, 388, 343);

MoveToEx(hdc, 373, 352, &pt);

LineTo(hdc, 397, 373);

MoveToEx(hdc, 373, 382, &pt);

LineTo(hdc, 406, 403);

MoveToEx(hdc, 373, 412, &pt);

LineTo(hdc, 415, 433);

MoveToEx(hdc, 373, 442, &pt);

LineTo(hdc, 420, 458);

//stripes - ears

MoveToEx(hdc, 505, 135, &pt);

LineTo(hdc, 516, 157);

MoveToEx(hdc, 575, 135, &pt);

LineTo(hdc, 566, 155);

ValidateRect(hwnd, NULL);

EndPaint(hwnd, &ps);

break;

case WM\_DESTROY:

KillTimer(hwnd, 1);

PostQuitMessage(0);

return 0;

}

return DefWindowProc(hwnd, iMsg, wParam, lParam);

}