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**Programación 2**

**Taller Funciones de posición y color**

#include <windows.h>

#include <stdio.h>

//------------------------------------------------------------------

void gotoxy(int x, int y){

COORD coord;

coord.X = x;

coord.Y = y;

SetConsoleCursorPosition(GetStdHandle(STD\_OUTPUT\_HANDLE), coord);

}

//------------------------------------------------------------------

void color (int C)

{

HANDLE hConsole = GetStdHandle(STD\_OUTPUT\_HANDLE);

SetConsoleTextAttribute(hConsole, C);

}

//------------------------------------------------------------------

void ListaColores()

{

int i=1;

while (i<64)

{

gotoxy(1,i+1);

color(i);

printf("Color %d", i);

gotoxy(25,i+1);

color(i+64);

printf("Color %d", i+64);

gotoxy(50,i+1);

color(i+128);

printf("Color %d", i+128);

gotoxy(75,i+1);

color(i+192);

printf("Color %d", i+192);

i++;

}

}

//-------------------------------------------------------------------

void Listaascii()

{

int i=0;

while (i<64)

{

gotoxy(1,i+1);

printf("%d : %c \n", i, i);

gotoxy(25,i+1);

printf("%d : %c \n", i+64, i+64);

gotoxy(50,i+1);

printf("%d : %c \n", i+128, i+128);

gotoxy(75,i+1);

printf("%d : %c \n", i+192, i+192);

i++;

}

}

//-------------------------------------------------------------------

void lineaH (int x, int y, int tam)

{

int i;

i=x;

while (i<=x+tam)

{

gotoxy(i,y);

printf("%c",196);

i++;

}

}

void lineaH2 (int x, int y, int tam)

{

int i;

i=x;

while (i<=x+tam)

{

gotoxy(i,y);

printf("%c",205);

i++;

}

}

//---------------------------------------

void lineaV (int x, int y, int tam)

{

int i;

i=y;

while (i<=y+tam)

{

gotoxy(x,i);

printf("%c",179);

i++;

}

}

void lineaV2 (int x, int y, int tam)

{

int i;

i=y;

while (i<=y+tam)

{

gotoxy(x,i);

printf("%c",186);

i++;

}

}

//------------------------------------------

void esquina1 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 218);

}

void esquina2 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 191);

}

void esquina3 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 192);

}

void esquina4 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 217);

}

void esquina5 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 201);

}

void esquina6 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 187);

}

void esquina7 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 200);

}

void esquina8 (int x, int y)

{

gotoxy (x, y);

printf ("%c", 188);

}

//-----------------------------------------

void cuadro (int x1, int y1, int x2, int y2, int borde)

{

if (borde==1)

{

lineaH (x1+1, y1, x2-x1-2);

lineaH (x1+1, y2, x2-x1-2);

lineaV (x1, y1+1, y2-y1-2);

lineaV (x2, y1+1, y2-y1-2);

esquina1 (x1, y1);

esquina2 (x2, y1);

esquina3 (x1, y2);

esquina4 (x2, y2);

}

if (borde==2)

{

lineaH2 (x1+1, y1, x2-x1-2);

lineaH2 (x1+1, y2, x2-x1-2);

lineaV2 (x1, y1+1, y2-y1-2);

lineaV2 (x2, y1+1, y2-y1-2);

esquina5 (x1, y1);

esquina6 (x2, y1);

esquina7 (x1, y2);

esquina8 (x2, y2);

}

}

//---------------------------------------------

void cuadroR (int x1, int y1, int x2, int y2, int colorRelleno)

{

int i, i2;

i2=y1;

while (i2<=y2)

{

i=x1;

while (i<=x2)

{

color (colorRelleno);

gotoxy (i, i2);

printf ("%c", 219);

i++;

}

i2++;

}

}

//---------------------------------------------

void sombraH (int x, int y, int tam, int col)

{

int i;

i=y;

while (i<=tam)

{

gotoxy (x+1, i+1);

color (col);

printf ("%c", 178);

i++;

}

}

void sombraV (int x, int y, int tam, int col)

{

int i;

i=x;

while (i<=tam)

{

gotoxy (i+2, y+1);

color (col);

printf ("%c", 178);

i++;

}

}

//---------------------------------------------

void ventana1 (int x1, int y1, int x2, int y2, int colorfondo, int colorSombra)

{

int i, i2;

i=y1;

i2=x1;

cuadroR (x1, y1, x2, y2, colorfondo);

sombraH (x2, y1, y2, colorSombra);

sombraH (x2+1, y1, y2, colorSombra);

sombraV (x1, y2, x2, colorSombra);

}

//---------------------------------------------

void renglon (int x, int y, int tam, int col)

{

int i;

i=x;

while (i<=tam)

{

gotoxy (i, y);

color (col);

printf ("%c", 219);

i++;

}

}

//---------------------------------------------

void ventana2 (int x1, int y1, int x2, int y2, int colortitulo, int colorfondo, int colorSombra)

{

int i;

i=x1;

ventana1 (x1, y1, x2, y2, colorfondo, colorSombra);

renglon (x1, y1, x2, colortitulo);

renglon (x1, y1+1, x2, colortitulo);

}

//----------------------------------------------

void tabla (int x1, int y1, int filas, int columnas, int borde)

{

int i, i2, i3;

i=0;

i2=0;

i3=1;

while (i<=filas)

{

if (borde==1)

{

lineaH (x1+1, y1+i, (10\*columnas)-2);

}

if (borde==2)

{

lineaH2 (x1+1, y1+i, (10\*columnas)-2);

}

i++;

}

while (i2<=columnas)

{

if (borde==1)

{

lineaV (x1+(i2\*10), y1+1, filas-2);

}

if (borde==2)

{

lineaV2 (x1+(i2\*10), y1+1, filas-2);

}

i2++;

}

if (borde==1)

{

esquina1 (x1, y1);

esquina2 (x1+(columnas\*10), y1);

esquina3 (x1, y1+filas);

esquina4 (x1+(columnas\*10), y1+filas);

while (i3<columnas)

{

esquina1 (x1+(i3\*10), y1);

esquina3 (x1+(i3\*10), y1+filas);

i3++;

}

}

if (borde==2)

{

esquina5 (x1, y1);

esquina6 (x1+(columnas\*10), y1);

esquina7 (x1, y1+filas);

esquina8 (x1+(columnas\*10), y1+filas);

while (i3<columnas)

{

esquina5 (x1+(i3\*10), y1);

esquina7 (x1+(i3\*10), y1+filas);

i3++;

}

}

}

//----------------------------------------------

void listaAscii ()

{

int i;

i=1;

tabla (1, 1, 85, 3, 1);

while (i<=85)

{

gotoxy (2, i\*2);

printf ("%d: %c \n\n", i, i);

gotoxy (2+10, i\*2);

printf ("%d: %c \n\n", i+85, i+85);

gotoxy (2+20, i\*2);

printf ("%d: %c \n\n", i+170, i+170);

i++;

}

}

//-----------------------------------------------

void listacolores ()

{

int i;

i=0;

// tabla (1, 1, 64, 4, 1);

while (i<64)

{

gotoxy (2, (i\*2)+2);

color (i);

printf ("Color %d", i);

gotoxy (2+10, (i\*2)+2);

color (i+64);

printf ("Color %d", i+64);

gotoxy (2+20, (i\*2)+2);

color (i+128);

printf ("Color %d", i+128);

gotoxy (2+30, (i\*2)+2);

color (i+192);

printf ("Color %d", i+192);

i++;

}

}

#include <stdio.h>

#include <stdlib.h>

#include "Presentacion.h"

main ()

{

// cuadro (20, 2, 40, 10, 2);

// cuadroR (20,2, 40, 10, 11);

// ventana1 (20, 2, 60, 10, 60, 20);

// ventana2 (20, 2, 60, 10, 30, 50, 134);

// tabla (2, 5, 3, 4, 2);

// listaAscii ();

// listacolores ();

putchar ('\n');

putchar ('\n');

putchar ('\n');

putchar ('\n');

putchar ('\n');

putchar ('\n');

putchar ('\n');

putchar ('\n');

}