Bangladesh University of Business and Technology (BUBT)

Lab Report

Course code: CSE 320

Course title: Computer Graphics lab

Experiment name: Create a smiley face in C using graphics.

Submitted by

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Intake: 43

Section: 02

Program: B. Sc. Engg in CSE

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Experiment name: Create a smiley face in C using graphics.

Requirements:

- Laptop/Desktop,
- Code blocks,
- graphics.h library.

Description:

When looking at an abstract of smiley faces and how they contributed to the wider field of computer graphics one cannot simply discard the idea as ridiculous. How come things that we usually associate with pop culture and younger generation could have an impact in how we progressed with computer graphics? What is the driver to even entertain such idea? I will try my best to explain and bring this subject closer to the readers view in this paper. I believe that the best way to highlight smiley faces is important footprint in evolution of computer graphics to the readers understanding would be achieved if we delve into history of emoticons before they came to be in our everyday life – whether on the messages we send on the cellular phones to wider use in computer graphics. We will create a Smiley Face with the help below functions:

fillellipse(int x, int y, int x_radius, int y_radius): A function from graphics.h header file which draws and fills an ellipse with center at (x, y) and (x_radius, y_radius) as x and y radius of ellipse.

ellipse(int x, int y, int stangle, int endangle, int xradius, int yradius): A function from graphics.h header file which is used to draw an ellipse (x, y) are coordinates of the center of the ellipse, stangle is the starting angle, end angle is the ending angle, and fifth and sixth parameters specifies the X and Y radius of the ellipse.

setcolor(n): A function from graphics.h header file which set the color of pointer(cursor).

setfillstyle(): A function from graphics.h header file which sets the current fill pattern and fill color.

floodfill(): A function from graphics.h header file which is used to fill an enclosed area.

Settexstyle(): It is used to change the way in which text appears. Using it we can modify the size of text, change direction of text and change the font of text.

Circle(): The header file graphics.h contains **circle()** function which draws a circle with center at (x, y) and given radius.

Rectangle(): rectangle() is used to draw a rectangle. Coordinates of left top and right bottom corner are required to draw the rectangle. left specifies the X-coordinate of top left corner, top specifies the Y-coordinate of top left corner, right specifies the X-coordinate of right bottom corner, bottom specifies the Y-coordinate of right bottom corner.

Input/Output:

Input:

```
#include<graphics.h>
#include<stdlib.h>
#include<stdio.h>
#include<conio.h>
int main(void)
{
   int gdriver = DETECT, gmode, errorcode;
   initgraph(&gdriver, &gmode, "C:\\TURBO3\\BGT");
   setcolor(GREEN);
    rectangle(18,22,590,390);
   settextstyle(TRIPLEX_FONT, HORIZ_DIR, 1);
   outtextxy(230,60,"Smiley Face");
   setlinestyle(SOLID_LINE,0,1);
   //1st smiley...
   setcolor(YELLOW);
   setfillstyle(SOLID_FILL,YELLOW);
   circle(100,150,60);
   floodfill(101,151,YELLOW);
   setcolor(BLACK);
   setfillstyle(SOLID_FILL, BLACK);
   circle(80,130,3);
   floodfill(81,131,BLACK);
   circle(120,130,3);
   floodfill(121,131,BLACK);
   //2nd smiley
   setcolor(YELLOW);
   setfillstyle(SOLID_FILL,YELLOW);
   circle(100,300,60);
   floodfill(101,301,YELLOW);
```

```
    setcolor(BLACK);
    setfillstyle(SOLID_FILL,BLACK);
    circle(80,280,3);
    floodfill(81,281,BLACK);
    circle(120,280,3);
    floodfill(121,281,BLACK);
    line(70,320,130,320);
    //3rd smiley
     setcolor(YELLOW);
    setfillstyle(SOLID_FILL,YELLOW);
    circle(500,150,60);
    floodfill(501,151,YELLOW);
    setcolor(BLACK);
    setfillstyle(SOLID_FILL, BLACK);
    circle(480,130,3);
    floodfill(481,131,BLACK);
    circle(520,130,3);
    floodfill(521,131,BLACK);
    ellipse(500,180,0,180,30,20);
    //4th smiley
     setcolor(YELLOW);
    setfillstyle(SOLID_FILL,YELLOW);
    circle(500,300,60);
    floodfill(501,301,YELLOW);
    setcolor(BLACK);
    setfillstyle(SOLID_FILL, BLACK);
    circle(80,130,3);
    ellipse(475,280,180,0,10,10);
   ellipse(525,280,180,0,10,10);
   ellipse(500,300,180,0,40,35);

   getch();
   closegraph();
   return 0;
}
```