Lab – 7

14. Draw solar system using computer graphics functions.

#include <graphics.h>

#include <conio.h>

#include <math.h>

void drawPlanet(int x, int y, int radius, int color, char name[])

{

    setcolor(color);

    setfillstyle(SOLID\_FILL, color);

    fillellipse(x, y, radius, radius);

    setcolor(WHITE);

    outtextxy(x - radius - 2, y + radius + 5, name);

}

void drawSolarSystem(int centerX, int centerY)

{

    setcolor(YELLOW);

    setfillstyle(SOLID\_FILL, YELLOW);

    fillellipse(centerX, centerY, 50, 50);

    outtextxy(centerX + 60, centerY - 10, "Sun");

    setcolor(WHITE);

    circle(centerX, centerY, 100);

    circle(centerX, centerY, 150);

    circle(centerX, centerY, 200);

    circle(centerX, centerY, 250);

    circle(centerX, centerY, 300);

    circle(centerX, centerY, 350);

    circle(centerX, centerY, 400);

    circle(centerX, centerY, 450);

    drawPlanet(centerX + 100, centerY, 5, LIGHTGRAY, "Mercury");

    drawPlanet(centerX + 150, centerY, 12, LIGHTGREEN, "Venus");

    drawPlanet(centerX + 200, centerY, 15, BLUE, "Earth");

    drawPlanet(centerX + 250, centerY, 10, RED, "Mars");

    drawPlanet(centerX + 300, centerY, 20, BROWN, "Jupiter");

    drawPlanet(centerX + 350, centerY, 18, CYAN, "Saturn");

    drawPlanet(centerX + 400, centerY, 15, LIGHTBLUE, "Uranus");

    drawPlanet(centerX + 450, centerY, 14, BLUE, "Neptune");

}

int main()

{

    int gd = DETECT, gm;

    initgraph(&gd, &gm, NULL);

    int centerX = getmaxx() / 2;

    int centerY = getmaxy() / 2;

    drawSolarSystem(centerX, centerY);

    getch();

    closegraph();

    return 0;

}

