

Program:

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#include <stdio.h>

#include <conio.h>

#include <graphics.h>

#include <dos.h>

#include <math.h>

void planetMotion(int xrad, int yrad, int midx, int midy, int x[60], int y[60]) {

    int i, j = 0;

    for (i = 360; i > 0; i = i - 6) {

        x[j] = midx - (xrad * cos((i * 3.14) / 180));

        y[j++] = midy - (yrad * sin((i * 3.14) / 180));

    }

    return;

}

int main() {

    int gdriver = DETECT, gmode, err;

    int i = 0, midx, midy;

    int xrad[9], yrad[9], x[9][60], y[9][60];

    int pos[9], planet[9], tmp;

    initgraph(&gdriver, &gmode, "C:/TURBOC3/BGI");

    err = graphresult();

    if (err != grOk) {

        printf("Graphics Error: %s",

            grapherrormsg(err));

        return 0;

    }

    midx = getmaxx() / 2;

    midy = getmaxy() / 2;

    planet[0] = 7;

    for (i = 1; i < 9; i++) {
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    planet[i] = planet[i - 1] + 1;
}
for (i = 0; i < 9; i++) {
    pos[i] = i * 6;
}
xrad[0] = 60, yrad[0] = 30;
for (i = 1; i < 9; i++) {
    xrad[i] = xrad[i - 1] + 30;
    yrad[i] = yrad[i - 1] + 15;
}
for (i = 0; i < 9; i++) {
    planetMotion(xrad[i], yrad[i], midx, midy, x[i], y[i]);
}
while (!kbhit()) {
    setcolor(WHITE);
    for (i = 0; i < 9; i++) {
        ellipse(midx, midy, 0, 360, xrad[i], yrad[i]);
    }
    setcolor(YELLOW);
    setfillstyle(SOLID_FILL, YELLOW);
    circle(midx, midy, 20);
    floodfill(midx, midy, YELLOW);
    setcolor(CYAN);
    setfillstyle(SOLID_FILL, CYAN);
    pieslice(x[0][pos[0]], y[0][pos[0]], 0, 360, planet[0]);
    setcolor(GREEN);
    setfillstyle(SOLID_FILL, GREEN);
    pieslice(x[1][pos[1]], y[1][pos[1]], 0, 360, planet[1]);
    setcolor(BLUE);
    setfillstyle(SOLID_FILL, BLUE);
    pieslice(x[2][pos[2]], y[2][pos[2]], 0, 360, planet[2]);
}

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setcolor(RED);

setfillstyle(SOLID_FILL, RED);

pieslice(x[3][pos[3]], y[3][pos[3]], 0, 360, planet[3]);

setcolor(BROWN);

setfillstyle(SOLID_FILL, BROWN);

pieslice(x[4][pos[4]], y[4][pos[4]], 0, 360, planet[4]);

setcolor(LIGHTGRAY);

setfillstyle(SOLID_FILL, LIGHTGRAY);

pieslice(x[5][pos[5]], y[5][pos[5]], 0, 360, planet[5]);

setcolor(BROWN);

setfillstyle(SOLID_FILL, BROWN);

pieslice(x[6][pos[6]], y[6][pos[6]], 0, 360, planet[6]);

setcolor(LIGHTBLUE);

setfillstyle(SOLID_FILL, LIGHTBLUE);

pieslice(x[7][pos[7]], y[7][pos[7]], 0, 360, planet[7]);

setcolor(LIGHTRED);

setfillstyle(SOLID_FILL, LIGHTRED);

pieslice(x[8][pos[8]], y[8][pos[8]], 0, 360, planet[8]);

for (i = 0; i < 9; i++) {
    if (pos[i] <= 0) {
        pos[i] = 59;
    } else {
        pos[i] = pos[i] - 1;
    }
}

delay(100);

cleardevice();

}

closegraph();

return 0;

}

```

Output:

