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**Tugas Grafika Komputer**

1. **Membuat pixel**

**#include <GL/glut.h>**

**#include <GL/glut.h>**

**void titik ();**

**main(int argc, char\*\* argv)**

**{**

**glutInit(&argc,argv);**

**glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB);**

**glutInitWindowSize(600,800);**

**glutInitWindowPosition(100,100);**

**glutCreateWindow("Project 1 - Membuat Titik");**

**glClearColor(0.0,0.0,0.0,0.0);**

**glMatrixMode(GL\_PROJECTION);**

**glOrtho(1.0,1.0,1.0,1.0,-1.0,1.0);**

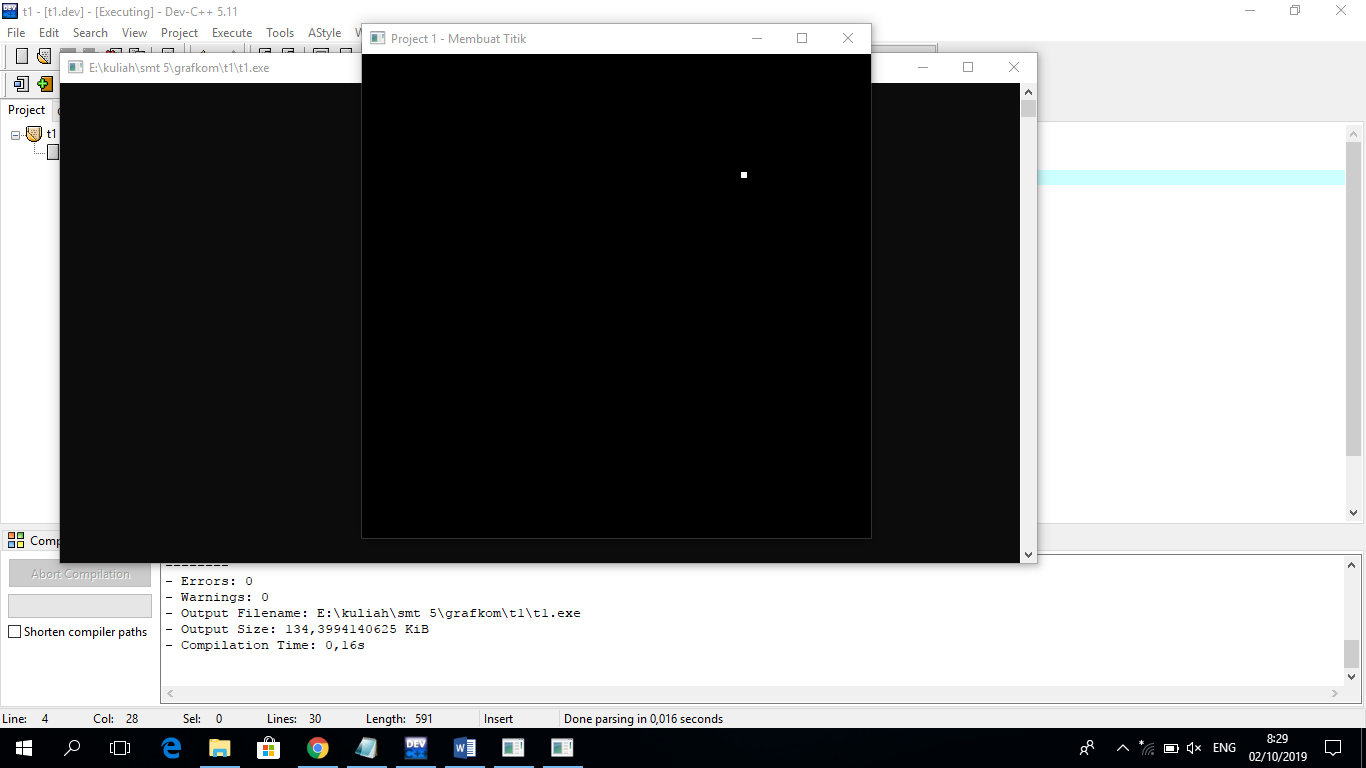
**glutDisplayFunc(titik);**

**glutMainLoop();**

**}**

**void titik()**

**{**

**glClear(GL\_COLOR\_BUFFER\_BIT);**

**glPointSize(5.5);**

**glBegin(GL\_POINTS);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.5,0.5);**

**glEnd();**

**glFlush();**

**}**

1. **Mengaktifkan beberapa pixel**

**#include <GL/glut.h>**

**#include <GL/glut.h>**

**void titik ();**

**main(int argc, char\*\* argv)**

**{**

**glutInit(&argc,argv);**

**glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB);**

**glutInitWindowSize(600,800);**

**glutInitWindowPosition(100,100);**

**glutCreateWindow("Project 1 - Membuat Titik acak");**

**glClearColor(0.0,0.0,0.0,0.0);**

**glMatrixMode(GL\_PROJECTION);**

**glOrtho(1.0,1.0,1.0,1.0,-1.0,1.0);**

**glutDisplayFunc(titik);**

**glutMainLoop();**

**}**

**void titik()**

**{**

**glClear(GL\_COLOR\_BUFFER\_BIT);**

**glPointSize(5.5);**

**glBegin(GL\_POINTS);**

**glColor3f(1.5, 0.5, 0.5);**

**glVertex2f(0.5,0.5);**

**glColor3f(0.0, 1.0, 1.0);**

**glVertex2f(0.15,0.15);**

**glColor3f(0.0, 0.0, 1.0);**

**glVertex2f(0.25,0.25);**

**glColor3f(1.0, 0.0, 1.0);**

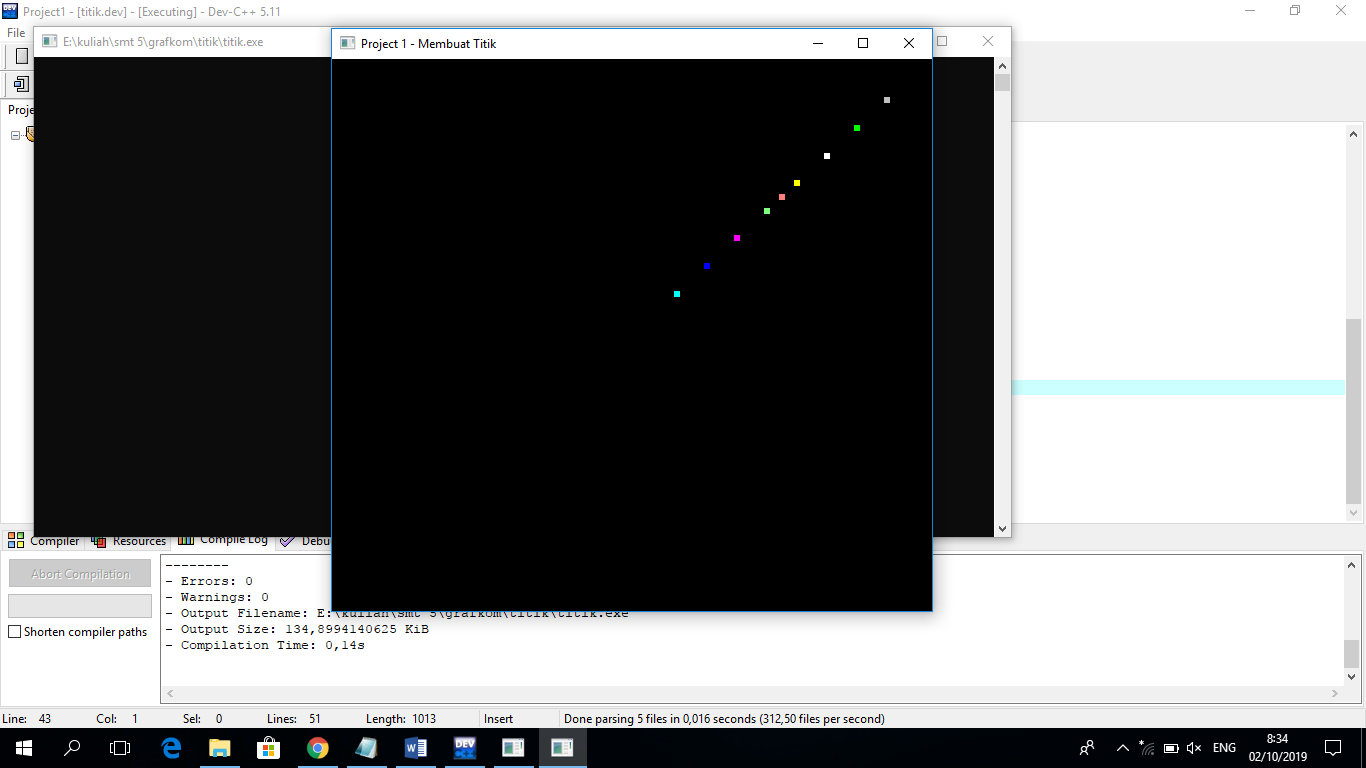
**glVertex2f(0.35,0.35);**

**glColor3f(0.5, 1.0, 0.5);**

**glVertex2f(0.45,0.45);**

**glColor3f(1.0, 1.0, 0.0);**

**glVertex2f(0.55,0.55);**



**glColor3f(1.0, 1.5, 8.0);**

**glVertex2f(0.65,0.65);**

**glColor3f(0.0, 1.0, 0.0);**

**glVertex2f(0.75,0.75);**

**glColor3f(0.75, 0.75, 0.75);**

**glVertex2f(0.85,0.85);**

**glEnd();**

**glFlush();**

**}**

1. **Membuat pixel menjadi garis**

**#include <GL/glut.h>**

**#include <GL/glut.h>**

**void titik ();**

**main(int argc, char\*\* argv)**

**{**

**glutInit(&argc,argv);**

**glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB);**

**glutInitWindowSize(600,800);**

**glutInitWindowPosition(50,50);**

**glutCreateWindow("Project 1 - Membuat Titik menjadi garis");**

**glClearColor(0.0,0.0,0.0,0.0);**

**glMatrixMode(GL\_PROJECTION);**

**glOrtho(1.0,1.0,1.0,1.0,-1.0,1.0);**

**glutDisplayFunc(titik);**

**glutMainLoop();**

**}**

**void titik()**

**{**

**glClear(GL\_COLOR\_BUFFER\_BIT);**

**glPointSize(5.5);**

**glBegin(GL\_POINTS);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.0,0.0);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.025,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.05,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.075,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.1,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

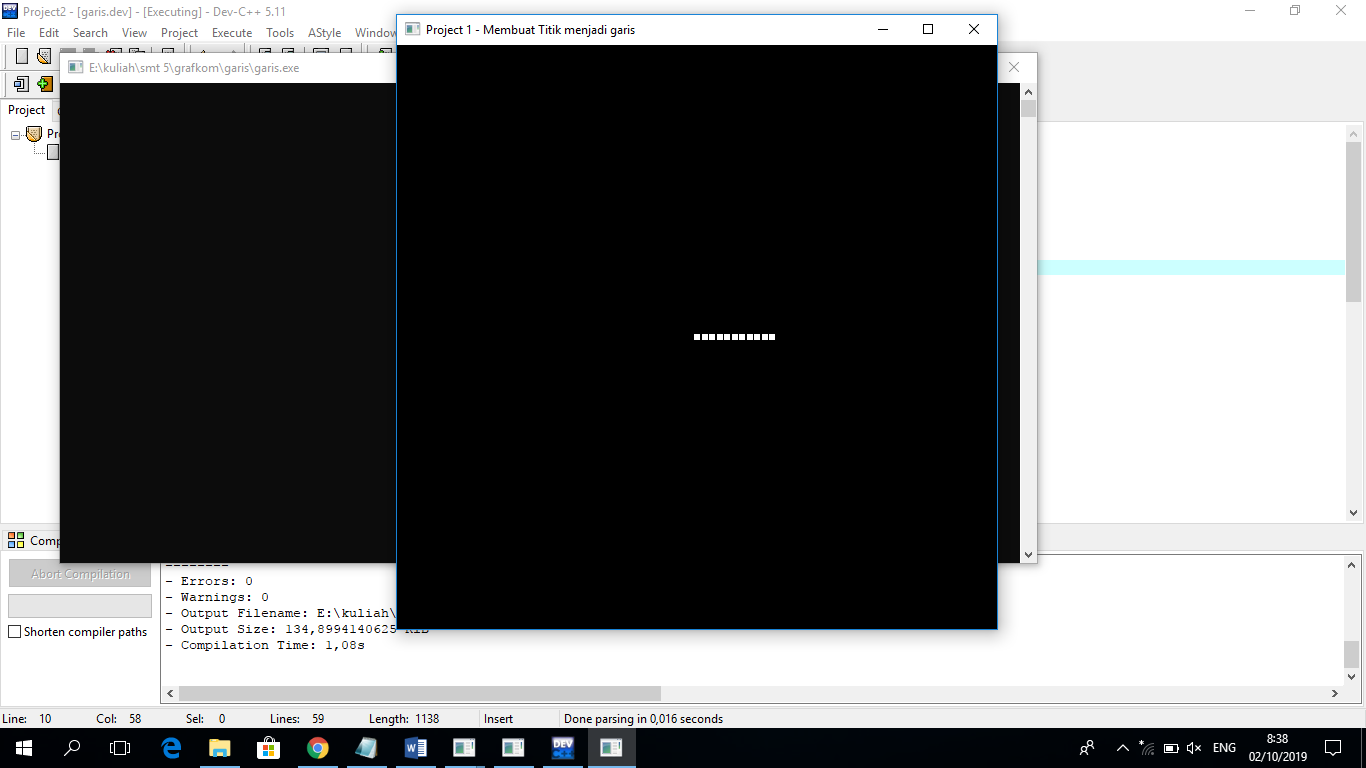
**glVertex2f(0.125,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.150,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.175,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.200,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.225,0.00);**

**glColor3f(1.0, 1.0, 1.0);**

**glVertex2f(0.250,0.00);**

**glEnd();**

**glFlush();**

**}**

1. **Membuat pixel menjadi lingkaran**

**#include <gl/glut.h>**

**#include <windows.h>**

**#include <math.h>**

**const double PI = 3.141592653589793;**

**int i,radius,jumlah\_titik,x\_tengah,y\_tengah;**

**void Draw() {**

**glClear(GL\_COLOR\_BUFFER\_BIT);**

**glColor3f(1.0, 1.0, 1.0);**

**glPointSize(5.5);**

**glBegin(GL\_POINTS);**

**radius=40;**

**jumlah\_titik=60;**

**x\_tengah=50;**

**y\_tengah=50;**

**for (i=0;i<=360;i++){**

**float sudut=i\*(2\*PI/jumlah\_titik);**

**float x=x\_tengah+radius\*cos(sudut);**

**float y=y\_tengah+radius\*sin(sudut);**

**glVertex2f(x/100,y/100);**

**}**

**glEnd();**

**glFlush();**

**}**

**void Initialize() {**

**glClearColor(0.0, 0.0, 0.0, 0.0);**

**glMatrixMode(GL\_PROJECTION);**

**glLoadIdentity();**

**glOrtho(0.0, 1.0, 0.0, 1.0, -1.0, 1.0);**

**}**

**int main(int iArgc, char\*\* cppArgv) {**

**glutInit(&iArgc, cppArgv);**

**glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);**

**glutInitWindowSize(250, 250);**

**glutInitWindowPosition(200, 200);**

**glutCreateWindow("Membuat titik menjadi Lingkaran");**

**Initialize();**

**glutDisplayFunc(Draw);**

**glutMainLoop();**

**return 0;**

**}**

