**Name – Pawar Shrikant Sanjeev**

**SE IT**

**Roll No.47**

**CG Lab**

**Assignment No: 7 (Koch curve)**

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

**#include <math.h>**

**GLfloat oldx=-0.7, oldy=0.5;**

**void drawkoch (GLfloat dir, GLfloat len, GLint iter) {**

**GLdouble dirRad = 0.0174533 \* dir;**

**GLfloat newX = oldx + len\* cos(dirRad);**

**GLfloat newY = oldy + len \* sin(dirRad);**

**if (iter==0)**

**{**

**glVertex2f (oldx, oldy);**

**glVertex2f(newX, newY);**

**oldx = newX;**

**oldy = newY;**

**}**

**else**

**{**

**iter--;**

**//draw the four parts of the side \_/\**

**drawkoch(dir, len, iter);**

**dir += 60.0;**

**drawkoch (dir, len, iter);**

**dir-= 120.0;**

**drawkoch (dir, len, iter);**

**dir += 60.0;**

**drawkoch (dir, len, iter);**

**}**

**}**

**void display(){**

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

**glBegin (GL\_LINES);**

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

**drawkoch (0.0, 0.04,3);**

**drawkoch (-120.0, 0.04, 3);**

**drawkoch (120.0, 0.04,3);**

**glEnd();**

**glFlush();**

**}**

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

**{**

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

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

**glutInitWindowSize (500, 500);**

**glutInitWindowPosition (0,0);**

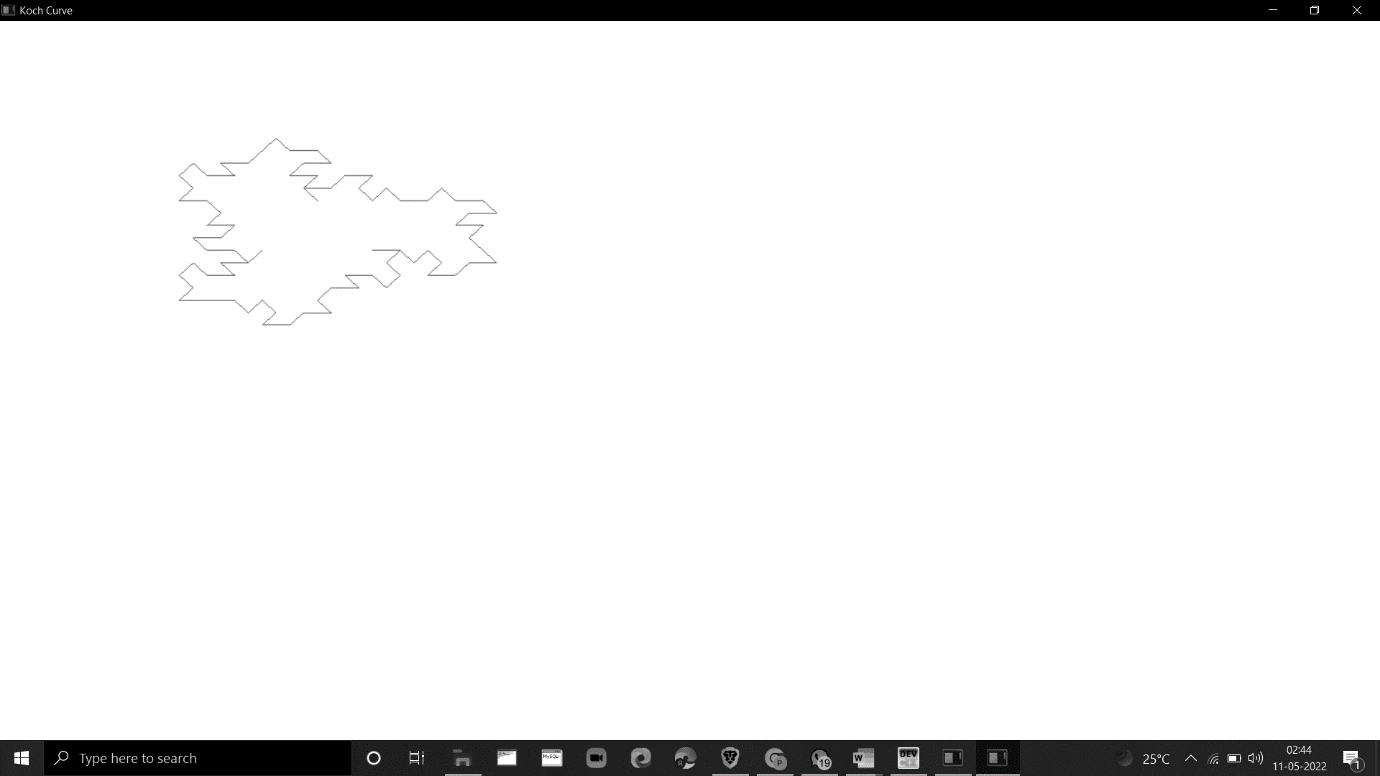
**glutCreateWindow("Koch Curve");**

**glutDisplayFunc(display);**

**glutMainLoop();**

**}**

**Output:**

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