# A sample circular primitive in openGL:

# GRAPH:

# 

# CODE:

#include<windows.h>

#include <GL/glut.h>

#include <math.h>

void init(void)

{

glClearColor(0.0, 0.0, 0.0, 0.1); // Set display window color to white

glMatrixMode(GL\_PROJECTION); // Set projection parameters

gluOrtho2D(0.0, 500.0, 0.0, 500.0);

}

void display()

{

float theta;

int i;

glClear(GL\_COLOR\_BUFFER\_BIT); // Clear display window

glColor3f(.9, 0.9, 0.9);

glBegin(GL\_POLYGON);

glVertex2d(0,0);

glVertex2d(500,0);

glVertex2d(500,500);

glVertex2d(0,500);

glEnd();

glColor3f(1.0, 1.0, 1.0);

glBegin(GL\_POLYGON);

for(i=0;i<360;i++) // white circle

{

theta=i\*3.142/180;

glVertex2f(250+230\*cos(theta),250+230\*sin(theta));

}

glEnd();

glColor3f(1.0,0.0,.0); //Red 1

glBegin(GL\_POLYGON);

for(i=75;i<113;i++){

theta=i\*3.142/60;

glVertex2f(250+210\*cos(theta),250+210\*sin(theta)); //glVertex2f(250+210\*cos(theta),250+210\*sin(theta));

}

glVertex2f(170,165);

glEnd();

glColor3f(1.0,0.0,.0); //Red 2

glBegin(GL\_POLYGON);

glVertex2f(250,250);

glVertex2f(220,280);

glVertex2f(450,280);

glVertex2f(450,220);

glVertex2f(220,220);

glEnd();

glColor3f(1.0,0.0,.0); //Red 3

glBegin(GL\_POLYGON);

for(i=8;i<53;i++){

theta=i\*3.142/60;

glVertex2f(250+210\*cos(theta),250+210\*sin(theta)); //glVertex2f(250+210\*cos(theta),250+210\*sin(theta));

}

glEnd();

glColor3f(0.0,0.0,.9);

glBegin(GL\_POLYGON);

for(i=40;i<80;i++){

theta=i\*3.142/60;

glVertex2f(250+210\*cos(theta),250+210\*sin(theta)); //glVertex2f(250+210\*cos(theta),250+210\*sin(theta));

}

glVertex2f(250,250);

glEnd();

glColor3f(1.0, 1.0, 1.0);//blue

glBegin(GL\_POLYGON);

glVertex2d(135,270);

glVertex2d(140,285);

glVertex2d(145,270);

glVertex2d(170,270);

glVertex2d(150,260);

glVertex2d(160,240);

glVertex2d(140,255);

glVertex2d(120,240);

glVertex2d(140,255);

glVertex2d(110,270);

glEnd();

glFlush();

}

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

{

glutInit(&argc, argv);

glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB);

glutInitWindowPosition(100, 100);

glutInitWindowSize(350, 350);

glutCreateWindow("Iffat Firozy Rimi 163-15-8434");

init();

glutDisplayFunc(display);

glutMainLoop();

return 0;

}

# Output: