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// Roll Number – 207019

#include<iostream>

#include<GL/glut.h>

#include<math.h>

#define w 500

#define h 500

using namespace std;

float a[30][2];

int k=0;

void myMouse(GLint button,GLint state,GLint x,GLint y)

{

if(state==GLUT\_DOWN)

{

if(button==GLUT\_LEFT\_BUTTON)

{

a[k][0]=(float)(x-250);

a[k][1]=(float)(250-y);

glBegin(GL\_POINTS);

glVertex2f(a[k][0],a[k][1]);

glEnd();

k++;

glFlush();

}

if(button==GLUT\_RIGHT\_BUTTON)

{

glBegin(GL\_LINE\_LOOP);

for(int i=0;i<k;i++)

{

glVertex2f(a[i][0],a[i][1]);

}

glEnd();

k=0;

glFlush();

}

}

}

void menu(GLint item)

{

if(item==1)

{

glColor3f(1.0,0.0,0.0);

glutMouseFunc(myMouse);

}

if(item==2)

{

glColor3f(0.0,1.0,0.0);

glutMouseFunc(myMouse);

}

if(item==3)

{

glColor3f(0.0,0.0,1.0);

glutMouseFunc(myMouse);

}

if(item==4)

{

glColor3f(0.0,1.0,1.0);

glutMouseFunc(myMouse);

}

}

void myInit()

{

glClearColor(1.0,1.0,1.0,0.0);

glColor3f(0.0f,0.0f,0.0f);

glMatrixMode(GL\_PROJECTION);

glPointSize(5);

glLoadIdentity();

gluOrtho2D(-w/2,w/2,-h/2,h/2);

glClear(GL\_COLOR\_BUFFER\_BIT);

}

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

{

glutInit(&argc,argv);

glutInitDisplayMode(GLUT\_SINGLE|GLUT\_RGB);

glutInitWindowSize(500,500);

glutCreateWindow("POLYGON(First Middle Click->Then LEft Clicks->Then Right Clicks)");

myInit();

glutCreateMenu(menu);

glutAddMenuEntry("RED",1);

glutAddMenuEntry("GREEN",2);

glutAddMenuEntry("BLUE",3);

glutAddMenuEntry("CYAN",4);

glutAttachMenu(GLUT\_MIDDLE\_BUTTON);

glutMainLoop();

}

OUTPUT

satyam@ubuntu:~$ g++ two.cpp -lglut -lGL -lGLEW -lGLU -o two

satyam@ubuntu:~$ ./two

