ASSIGNMENT NO 3

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C21128

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//
#include<iostream>
#include<graphics.h>
#include<math.h>
using namespace std;
class figure
{
float length,delx,dely;
int d,h,xc,yc;
public:
void drawline(float x1,float y1,float x2,float y2)
{
 float xinc,yinc,dx,dy,steps;

                        dx=x2-x1;
                        dy=y2-y1;
                        if(abs(dx)>abs(dy))
                                steps=abs(dx);
                        else
                                steps=abs(dy);
                                xinc=dx/steps;
                                yinc=dy/steps;
                                for(int i=0;i<steps;i++)
                                {
                                        putpixel(x1,y1,WHITE); // drawpixel(X1,Y1);
                                        x1=x1+xinc;
                                        y1=y1+yinc;
                                }
}
void drawcircle(int r,int xc,int yc)
{
int x,y;
d=3-2*r;
x=0;
y=r;
do
{
putpixel(x+xc,y+yc,WHITE);
putpixel(y+xc,x+yc,WHITE);
putpixel(y+xc,-x+yc,WHITE);
putpixel(x+xc,-y+yc,WHITE);
putpixel(-x+xc,-y+yc,WHITE);
putpixel(-y+xc,-x+yc,WHITE);
putpixel(-y+xc,x+yc,WHITE);
putpixel(-x+xc,y+yc,WHITE);
if(d<0)
{
d=d+4*x+6;
x=x+1;
```

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}
else
{
d=d+4*(x-y)+10;
y=y-1;
x=x+1;
}
}while(x<=y);
}

void fig(float x11,float y11,float length)
{
h=(sqrt(3*length*length))/2;
drawline(x11,y11,x11+length,y11);
drawline(x11+length,y11,x11+(length)/2,y11-h);
drawline(x11,y11,x11+(length)/2,y11-h);
drawcircle(h/3,x11+(length)/2,y11-(h/3));
drawcircle(2*h/3,x11+(length)/2,y11-(h/3));
}

};

int main()

{

figure f1;
float x1,y1,length;
cout<<"enter the coordinates..."<<endl;
cin>>x1>>y1;
cout<<"enter thE length"<<endl;
cin>>length;
int gd=DETECT,gm;
initgraph(&gd,&gm,NULL);
f1.fig(x1,y1,length);
getch();
closegraph();
return 0;
}

//OUTPUT

enter the coordinates...
100
100
enter thE length
100
```

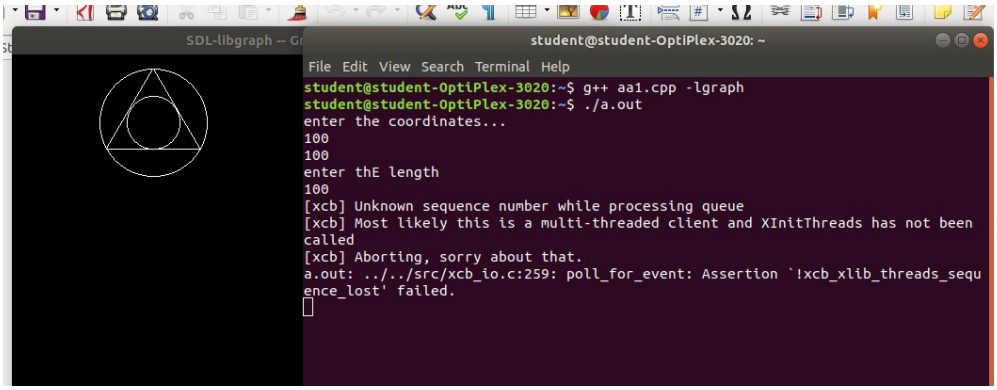
SDL-libgraph -- Gr
student@student-OptiPlex-3020: ~
File Edit View Search Terminal Help
student@student-OptiPlex-3020:~$ g++ aa1.cpp -lgraph
student@student-OptiPlex-3020:~$ ./a.out
enter the coordinates...
100
100
enter thE length
100
[xcb] Unknown sequence number while processing queue
[xcb] Most likely this is a multi-threaded client and XInitThreads has not been called
[xcb] Aborting, sorry about that.
a.out: ../../src/xcb_io.c:259: poll_for_event: Assertion `!xcb_xlib_threads_sequence_lost' failed.