**PROGRAM:**

#14. PRATHMESH BHOSALE

#include<iostream>

#include<graphics.h>

#include<stdlib.h>

#include<stdio.h>

int maxx,maxy;

float xxx [4][2];

void line1(float x2,float y2){

line(xxx[0][0],xxx[0][1],x2,y2);

xxx[0][0]=x2;

xxx[0][1]=y2;

}

void bezier(float xb,float yb,float xc,float yc,float xd,float yd,int n){

float xab,yab,xbc,ybc,xcd,ycd;

float xabc,yabc,xbcd,ybcd;

float xabcd,yabcd;

if(n==0){

line1(xb,yb);

line1(xc,yc);

line1(xd,yd);

}

else{

xab = (xxx[0][0]+xb)/2;

yab = (xxx[0][1]+yb)/2;

xbc = (xb+xc)/2;

ybc = (yb+yc)/2;

xcd = (xc+xd)/2;

ycd = (yc+yd)/2;

xabc = (xab+xbc)/2;

yabc = (yab+ybc)/2;

xbcd = (xbc+xcd)/2;

ybcd = (ybc+ycd)/2;

xabcd = (xabc+xbcd)/2;

yabcd = (yabc+ybcd)/2;

n=n-1;

bezier(xab,yab,xabc,yabc,xabcd,yabcd,n);

bezier(xbcd,ybcd,xcd,ycd,xd,yd,n);

}

}

int main(){

int i;

float temp1,temp2;

int gm,gd=DETECT;

initgraph(&gd,&gm,NULL);

xxx[0][0] = 100;

xxx[0][1] = 200;

bezier(150,50,200,50,250,200,8);

xxx[0][0] = 250;

xxx[0][1] = 200;

bezier(300,350,350,350,400,200,8);

getch();

closegraph();

return 0;

}

**OUTPUT:**

A crescent moon in the sky

Description automatically generated with low confidence