

```

1  //CODEBLOCKS
2  //SHREYAS SAWANT D7A 55
3  //Implement Bezier Curve
4
5  #include "graphics.h"
6  #include<math.h>
7  #include<conio.h>
8  #include<stdio.h>
9  int main()
10 {
11     int x[4],y[4]; //To store control points
12     double x1,y1,t;
13     int gd=DETECT, gm;
14     printf("\nPlease enter x and y coordinates for Cubic Bezier Curve \n");
15
16     for(int i=0;i<4;i++)
17     {
18         scanf("%d%d",&x[i],&y[i]);
19     }
20
21     initgraph(&gd,&gm," ");
22     outtextxy(250,50,"CUBIC BEZIER CURVE");
23     setcolor(BLUE);
24     for(int i=0;i<3;i++)
25     {
26         line(x[i],y[i],x[i+1],y[i+1]);
27     }
28
29     for(t=0.0;t<=1.0;t+=0.001)
30     {
31         x1 = pow(1-t,3)*x[0] + 3*t*pow(1-t,2)*x[1] + 3*t*t*(1-t)*x[2] + pow(t,3)*x[3];
32         y1 = pow(1-t,3)*y[0] + 3*t*pow(1-t,2)*y[1] + 3*t*t*(1-t)*y[2] + pow(t,3)*y[3];
33         putpixel(x1,y1, WHITE);
34     }
35     getch();
36     closegraph();
37 }
38

```

"C:\Users\user\Desktop\SHREYAS\SEM II\BezierCurve.exe"



Please enter x and y coordinates for Cubic Bezier Curve

100 200

400 300

600 150

300 400

CUBIC BEZIER CURVE

