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Prodi : D4 Manajemen Informatika

Algoritma Bresenham

Code :

```
Document1 - Microsoft Word
santika1.py - C:/Users/LENOVO/Downloads/santika1.py (3.10.2)
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from OpenGL.GL import *
from OpenGL.GLUT import *
from OpenGL.GLU import *

def initFun():
    glClearColor(1.0,1.0,1.0,0.0)
    glColor3f(128.0,0.0, 0.0)
    glPointSize(5.0)
    glMatrixMode(GL_PROJECTION)
    glLoadIdentity()
    gluOrtho2D(0.0,640.0,0.0,480.0)

def AlgDDA():
    #tentukan titik awal dan akhir
    x1 = 10
    y1 = 10
    x2 = 500
    y2 = 400
    x = x1
    y = y1

    #hitung dx dan dy
    dx = abs(x2 - x1)
    dy = abs(y2 - y1)

    #hitung p
    p = 2 * dy - dx
    duady = 2 * dy
    duadydx = 2 * (dy - dx)

    #tentukan titik awal dan akhir
    if (x1 > x2):
        x = x2
        y = y2
        xend = x1
    else:
        x = x1
        y = y1
        xend = x2
```

```
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#tentukan titik awal dan akhir
if (x1 > x2):
    x = x2
    y = y2
    xend = x1
else:
    x = x1
    y = y1
    xend = x2

#gambar titik awal
glBegin(GL_POINTS)
glVertex2i(x, y)

#perulangan untuk menggambar titik-titik
while (x < xend):
    x = x+1
    if (p < 0):
        p += duady
    else:
        if (y1 > y2):
            y = y-1
        else:
            y = y+1
        p += duadydx
    glVertex2i(x, y)

glEnd()
glFlush()

if __name__ == '__main__':
    glutInit()
    glutInitWindowSize(640,480)
    glutCreateWindow("Bresenham")
    glutInitDisplayMode(GLUT_DOUBLE | GLUT_RGBA)
    glutDisplayFunc(AlgDDA)
    initFun()
    glutMainLoop()
```

Output :

