Nama : Abi Ihza Rafi Alfano
NPM : 2217051114
Kelas : A

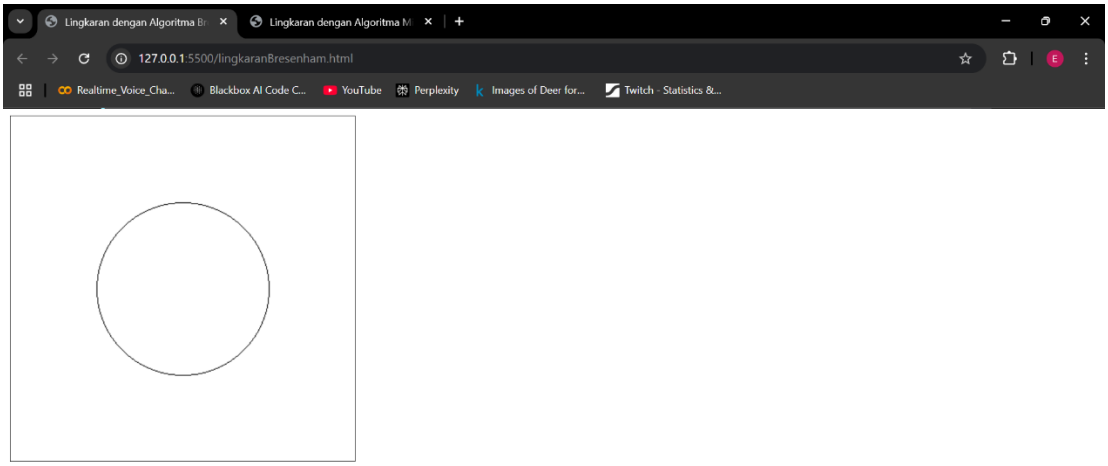
Tugas 3 Algoritma Pembuatan Lingkaran

1. Algoritma Bresenham

```
1. <!DOCTYPE html>
2. <html lang="en">
3. <head>
4.     <meta charset="UTF-8">
5.     <meta name="viewport" content="width=device-width, initial-
   scale=1.0">
6.     <title>Lingkaran dengan Algoritma Bresenham</title>
7.     <style>
8.         canvas {
9.             border: 1px solid black;
10.        }
11.    </style>
12.</head>
13.<body>
14.    <canvas id="canvas" width="400" height="400"></canvas>
15.    <script>
16.        const canvas = document.getElementById('canvas');
17.        const ctx = canvas.getContext('2d');
18.
19.        function drawBresenhamCircle(centerX, centerY, radius) {
20.            let x = 0;
21.            let y = radius;
22.            let d = 3 - 2 * radius;
23.
24.            function plotCirclePoints(xc, yc, x, y) {
25.                ctx.fillRect(xc + x, yc + y, 1, 1);
26.                ctx.fillRect(xc - x, yc + y, 1, 1);
27.                ctx.fillRect(xc + x, yc - y, 1, 1);
28.                ctx.fillRect(xc - x, yc - y, 1, 1);
29.                ctx.fillRect(xc + y, yc + x, 1, 1);
30.                ctx.fillRect(xc - y, yc + x, 1, 1);
31.                ctx.fillRect(xc + y, yc - x, 1, 1);
32.                ctx.fillRect(xc - y, yc - x, 1, 1);
33.            }
34.
35.            while (x <= y) {
36.                plotCirclePoints(centerX, centerY, x, y);
37.                if (d < 0) {
```

```
                    d = d + 4 * x + 6;
                } else {
                    d = d + 4 * (x - y) + 10;
                    y--;
                }
                x++;
            }
        }

        // Menggambar lingkaran
        drawBresenhamCircle(200, 200, 100);
    </script>
</body>
</html>
```



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2. Algoritma Midpoint

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Lingkaran dengan Algoritma Midpoint</title>
    <style>
        canvas {
            border: 1px solid black;
```

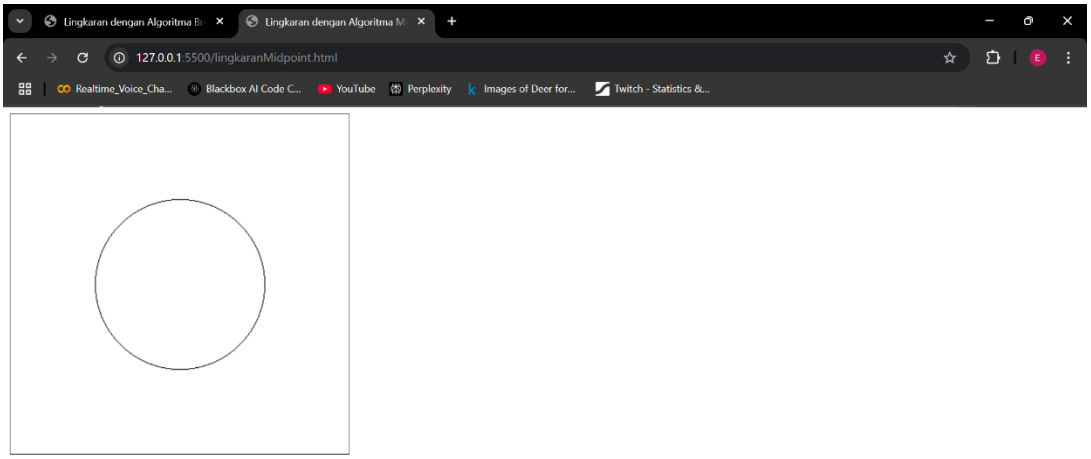
```
        }
    </style>
</head>
<body>
    <canvas id="canvas" width="400" height="400"></canvas>
    <script>
        const canvas = document.getElementById('canvas');
        const ctx = canvas.getContext('2d');

        function drawMidpointCircle(centerX, centerY, radius) {
            let x = radius;
            let y = 0;
            let d = 1 - radius;

            function plotCirclePoints(xc, yc, x, y) {
                ctx.fillRect(xc + x, yc + y, 1, 1);
                ctx.fillRect(xc - x, yc + y, 1, 1);
                ctx.fillRect(xc + x, yc - y, 1, 1);
                ctx.fillRect(xc - x, yc - y, 1, 1);
                ctx.fillRect(xc + y, yc + x, 1, 1);
                ctx.fillRect(xc - y, yc + x, 1, 1);
                ctx.fillRect(xc + y, yc - x, 1, 1);
                ctx.fillRect(xc - y, yc - x, 1, 1);
            }

            while (x >= y) {
                plotCirclePoints(centerX, centerY, x, y);
                y++;
                if (d <= 0) {
                    d = d + 2 * y + 1;
                } else {
                    x--;
                    d = d + 2 * y - 2 * x + 1;
                }
            }
        }

        // Menggambar lingkaran
        drawMidpointCircle(200, 200, 100);
    </script>
</body>
</html>
```


Lingkaran dengan Algoritma Br
Lingkaran dengan Algoritma M
127.0.0.1:5500/lingkaranMidpoint.html
Realtime_Voice_Cha...
Blackbox AI Code C...
YouTube
Perplexity
Images of Deer for...
Twitch - Statistics &...