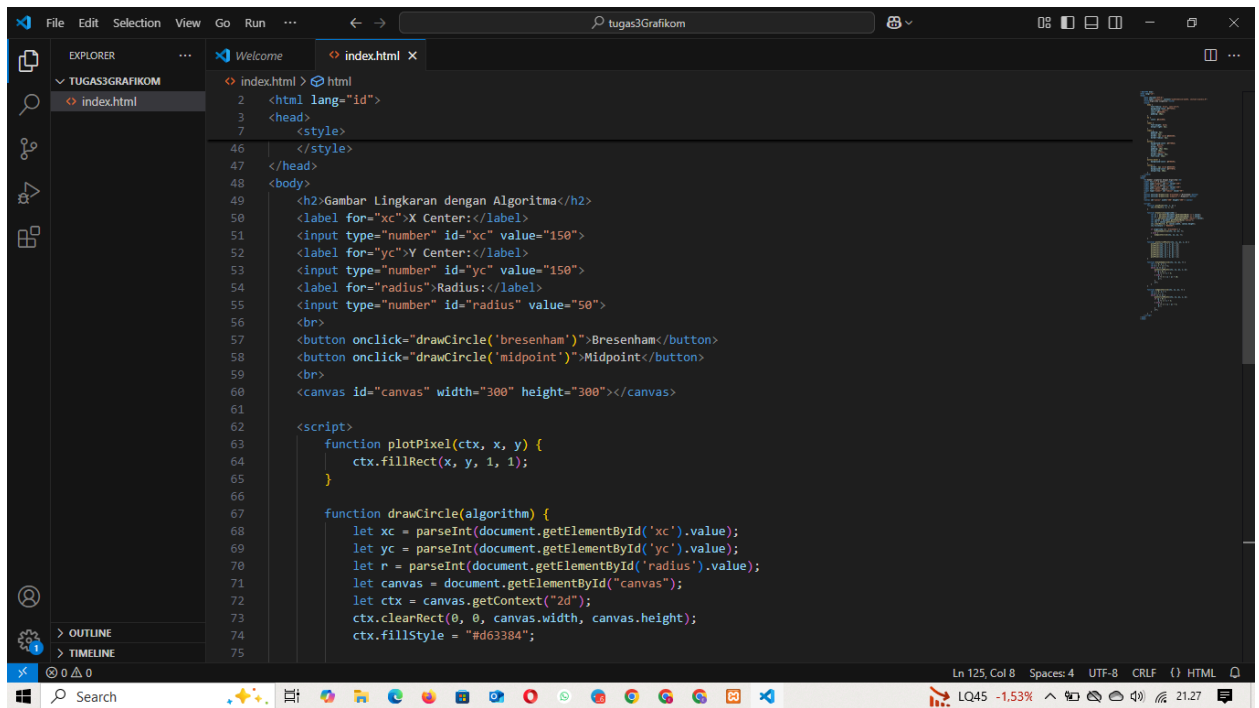


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Kelas : C

Tugas 3 Grafika Komputer Algoritma Pembentukan Lingkaran

1. Algoritma Bresenham

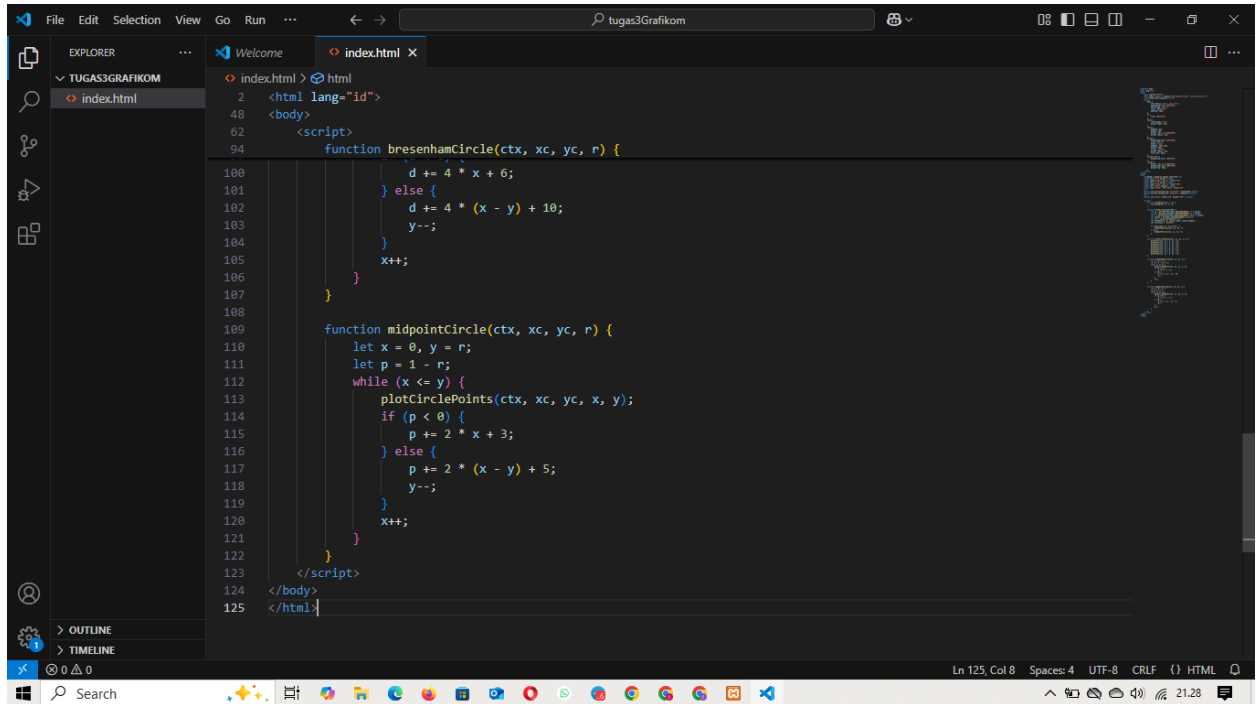
Source code untuk tampilan Pembentukan Lingkaran Algoritma Bresenham



```
1 <html lang="id">
2 <head>
3 <style>
46 </style>
47 </head>
48 <body>
49 <h2>Gambar Lingkaran dengan Algoritma</h2>
50 <label for="xc">X Center:</label>
51 <input type="number" id="xc" value="150">
52 <label for="yc">Y Center:</label>
53 <input type="number" id="yc" value="150">
54 <label for="radius">Radius:</label>
55 <input type="number" id="radius" value="50">
56 <br>
57 <button onclick="drawCircle('bresenham')">Bresenham</button>
58 <button onclick="drawCircle('midpoint')">Midpoint</button>
59 <br>
60 <canvas id="canvas" width="300" height="300"></canvas>
61
62 <script>
63   function plotPixel(ctx, x, y) {
64     ctx.fillRect(x, y, 1, 1);
65   }
66
67   function drawCircle(algorithm) {
68     let xc = parseInt(document.getElementById('xc').value);
69     let yc = parseInt(document.getElementById('yc').value);
70     let r = parseInt(document.getElementById('radius').value);
71     let canvas = document.getElementById("canvas");
72     let ctx = canvas.getContext("2d");
73     ctx.clearRect(0, 0, canvas.width, canvas.height);
74     ctx.fillStyle = "#d63384";
75   }
```


2. Algoritma Midpoint

Source code untuk tampilan Pembentukan Lingkaran Algoritma Midpoint



```
File Edit Selection View Go Run ... tugas3Grafikom
index.html x
index.html > html
2 <html lang="id">
48 <body>
62 <script>
94 function bresenhamCircle(ctx, xc, yc, r) {
100     d += 4 * x + 6;
101 } else {
102     d += 4 * (x - y) + 10;
103     y--;
104 }
105     x++;
106 }
107 }
108
109 function midpointCircle(ctx, xc, yc, r) {
110     let x = 0, y = r;
111     let p = 1 - r;
112     while (x <= y) {
113         plotCirclePoints(ctx, xc, yc, x, y);
114         if (p < 0) {
115             p += 2 * x + 3;
116         } else {
117             p += 2 * (x - y) + 5;
118             y--;
119         }
120         x++;
121     }
122 }
123 </script>
124 </body>
125 </html>
```

Hasil tampilan Pembentukan Lingkaran Algoritma Midpoint

