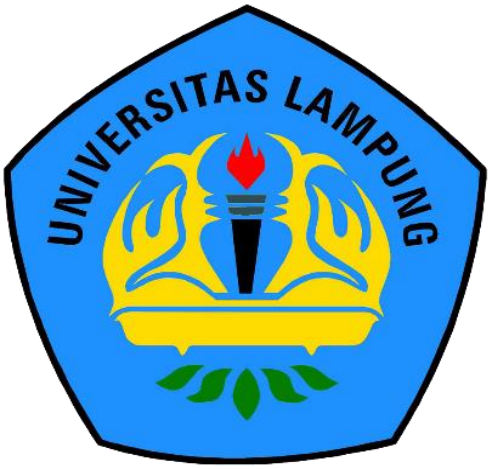
TUGAS PEMBUATAN KURVA BEZIER

"Laporan ini diajukan guna memenuhi tugas Mata Kuliah Grafika Komputer"



Dosen Pengampu:

1) Febi Eka Febriansyah, M.T.
2) Wartariyus, S.Kom., M.T.I.
3) Putut Aji Nalendro, S.Pd., M.Pd.

Disusun Oleh:

Nama :Anindiya Putri

NPM :2413025002

Kelas :PTI24B

PROGRAM STUDI PENDIDIKAN TEKNOLOGI INFORMASI

JURUSAN PENDIDIKAN MATEMATIKA DAN ILMU PENGETAHUAN ALAM

FAKULTAS KEGURUAN DAN ILMU PENDIDIKAN

UNIVERSITAS LAMPUNG

2025

Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Kurva Bezier Cubic - Dua Awan dan Pohon</title>
  <style>
    canvas {
      border: 2px solid #87CEEB;
    }
    h1 {
      text-align: center;
    }
  </style>
</head>
<body>
  <h1>MEMBUAT POHON DAN AWAN</h1>
  <canvas id="canvas" width="800" height="800"></canvas>
  <a href="index.html">Kembali ke home</a>

  <script>
    const canvas = document.getElementById("canvas");

    const ctx = canvas.getContext("2d");

    // Fungsi menggambar kurva Bezier
    function drawBezierCurve(ctx, points, color) {
      ctx.beginPath();
      ctx.moveTo(points[0].x, points[0].y);
      ctx.strokeStyle = color;
      ctx.fillStyle = color;
      for (let i = 1; i < points.length - 2; i += 3) {
```

```
    ctx.bezierCurveTo(
      points[i].x, points[i].y,
      points[i + 1].x, points[i + 1].y,
      points[i + 2].x, points[i + 2].y
    );
  }
  ctx.fill();
  ctx.closePath();
  ctx.stroke();
}

// Daun 1
const Daun1_points = [
  {x: 280, y: 320},
  {x: 190, y: 340},
  {x: 200, y: 225},
  {x: 240, y: 200},
  {x: 280, y: 190},
  {x: 280, y: 220},
  {x: 280, y: 205},
  {x: 270, y: 200},
  {x: 360, y: 120},
  {x: 380, y: 220},
  {x: 510, y: 210},
  {x: 410, y: 410},
  {x: 295, y: 310},
  {x: 250, y: 145},
  {x: 370, y: 110},
  {x: 400, y: 180},
  {x: 430, y: 180},
  {x: 460, y: 250},
  {x: 380, y: 300},
  {x: 340, y: 310},
  {x: 290, y: 300},
```

```
  {x: 250, y: 320},
  {x: 280, y: 190},
  {x: 200, y: 150},
  {x: 370, y: 160},
  {x: 240, y: 90}
];
drawBezierCurve(ctx, Daun1_points, "yellow");

// Daun 2
const Daun2_points = Daun1_points.map(point => ({
  x: point.x - 200,
  y: point.y - 120
}));
drawBezierCurve(ctx, Daun2_points, "orange");

// Semak 1
const Semak1_points = [
  {x: 150, y: 410},
  {x: 190, y: 320},
  {x: 200, y: 430},
  {x: 210, y: 370},
  {x: 240, y: 390},
  {x: 255, y: 400},
  {x: 250, y: 375},
  {x: 370, y: 440},
  {x: 150, y: 400},
  {x: 150, y: 410}
];
drawBezierCurve(ctx, Semak1_points, "forestgreen");

// Semak 2
const Semak2_points = Semak1_points.map(point => ({
  x: point.x + 190,
  y: point.y - 10
```

```
}));
drawBezierCurve(ctx, Semak2_points, "forestgreen");

// Semak 3
const Semak3_points = Semak1_points.map(point => ({
  x: point.x - 150,
  y: point.y - 80
}));
drawBezierCurve(ctx, Semak3_points, "forestgreen");

// Pohon 1
const branchPoints1 = [
  {x: 310, y: 480},
  {x: 310, y: 320},
  {x: 310, y: 310},
  {x: 300, y: 290},
  {x: 180, y: 185},
  {x: 330, y: 345},
  {x: 325, y: 245},
  {x: 330, y: 360},
  {x: 460, y: 190},
  {x: 350, y: 310},
  {x: 350, y: 470},
  {x: 350, y: 370},
  {x: 350, y: 480}
];
drawBezierCurve(ctx, branchPoints1, "tan");

// Pohon 2
const branchPoints2 = branchPoints1.map(point => ({
  x: point.x - 200,
  y: point.y - 120
}));
drawBezierCurve(ctx, branchPoints2, "tan");
```

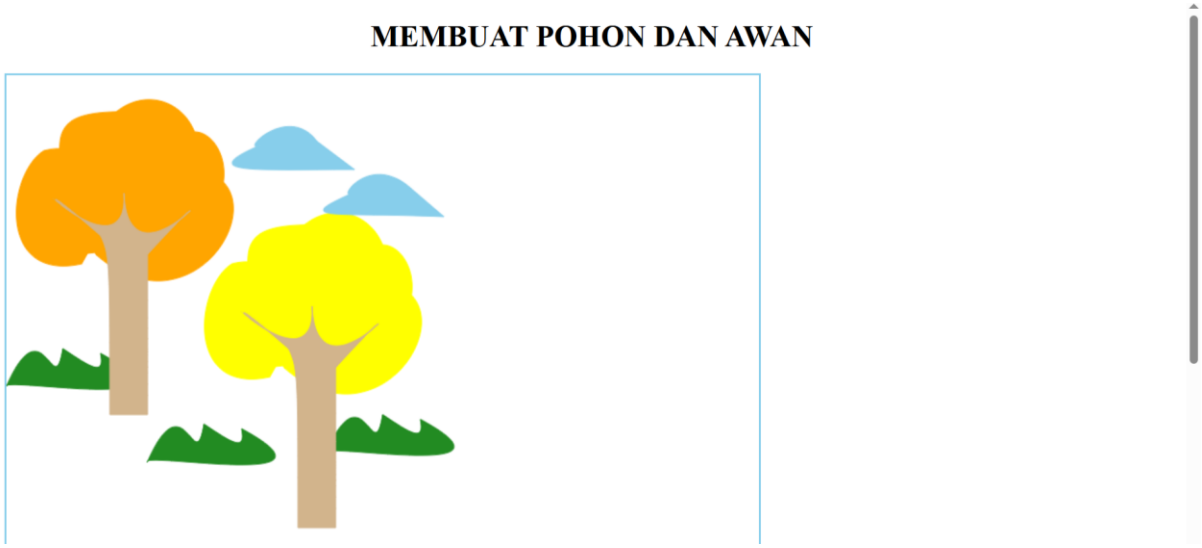
```
// Awan 1
const cloud1_points = [
  {x: 370, y: 100},
  {x: 265, y: 100},
  {x: 200, y: 105},
  {x: 268, y: 75},
  {x: 250, y: 80},
  {x: 300, y: 30},
  {x: 330, y: 70},
  {x: 370, y: 70},
  {x: 370, y: 100}
];
drawBezierCurve(ctx, cloud1_points, "skyblue");

// Awan 2
const cloud2_points = [
  {x: 465, y: 150},
  {x: 350, y: 145},
  {x: 300, y: 155},
  {x: 368, y: 125},
  {x: 350, y: 135},
  {x: 385, y: 80},
  {x: 430, y: 120},
  {x: 400, y: 120},
  {x: 450, y: 150}
];
drawBezierCurve(ctx, cloud2_points, "skyblue");

// Resize canvas (optional)
window.addEventListener("resize", () => {
  canvas.width = window.innerWidth;
  canvas.height = window.innerHeight;
  // (Redraw bisa ditambahkan di sini kalau mau responsif)
```

```
  });
 </script>
</body>
</html>
```

Hasil:



Link Video: https://drive.google.com/file/d/1Wf0SRzF0sZGThe8F0AHDq0rG-tTvh8Hn/view?usp=drivesdk