

Week 7\Lab 7_2\Lab 7_2_Donut.js

```
1 function init() {
2     // Set SVG width and height
3     var w = 300;
4     var h = 300;
5
6     // Data for the donut chart
7     var dataset = [5, 6, 10, 20, 25, 45];
8
9     // Set the outer and inner radius for the donut chart
10    var outerRadius = w/2;
11    var innerRadius = h/3; // Inner radius > 0 creates a donut shape
12
13    // Create an arc generator with the specified radii
14    var arc = d3.arc()
15        .outerRadius(outerRadius)
16        .innerRadius(innerRadius);
17
18    // Create a pie layout generator
19    var pie = d3.pie();
20
21    // Create the SVG container
22    var svg = d3.select("#chart")
23        .append("svg")
24        .attr("width", w)
25        .attr("height", h);
26
27    // Create a group for each arc and position them in the center
28    var arcs = svg.selectAll("g.arc")
29        .data(pie(dataset))
30        .enter()
31        .append("g")
32        .attr("class", "arc")
33        .attr("transform", "translate(" + outerRadius + "," + outerRadius + ")");
34
35    // Create a color scale for the donut slices
36    var color = d3.scaleOrdinal(d3.schemeCategory10);
37
38    // Draw each donut slice with a different color
39    arcs.append("path")
40        .attr("fill", function(d, i) {
41            return color(i)
42        })
43        .attr("d", function(d, i) {
44            return arc(d, i)
45        });
46
47    // Add text labels to each slice, positioned at the centroid
48    arcs.append("text")
```

```
49     .text(function(d){
50         return d.value
51     })
52     .attr("transform", function(d){
53         return "translate(" + arc.centroid(d) + ")";
54     })
55     .attr("font-size", "20px")
56 }
57
58 window.onload = init;
59
```