

```

1  <!DOCTYPE html>
2  <html lang="en">
3    <head>
4      <meta charset="UTF-8"/>
5      <meta name="description" content="Data Visualisation"/>
6      <meta name="keywords" content="HTML, CSS, D3"/>
7      <meta name="author" content="Anh Khoa"/>
8
9      <title>Task 3.1 D3 Scaling your Charts</title>
10
11      <script src="https://d3js.org/d3.v7.min.js"></script>
12
13    </head>
14
15    <body>
16      <h1>The D3 Journey starts here...</h1>
17
18      <script>
19        var w = 700;
20        var h = 300;
21        var padding = 30;
22
23        var dataset = [
24          [5,20,8],
25          [500,90,15],
26          [250,50,5],
27          [100,33,12],
28          [330,95,7],
29          [410,12,10],
30          [475,44,20],
31          [25,67,9],
32          [85,21,4],
33          [220,88,14],
34          [1000,150,10],
35          [-100,-50,5]
36        ];
37
38        var xScale = d3.scaleLinear()
39          .domain([d3.min(dataset, d => d[0]), d3.max(dataset, d => d[0])])
40          .range([padding, w - padding]);
41
42        var yScale = d3.scaleLinear()
43          .domain([d3.min(dataset, d => d[1]), d3.max(dataset, d => d[1])])
44          .range([h - padding, padding]);
45
46        var rScale = d3.scaleLinear()
47          .domain([0, d3.max(dataset, d => d[2])])
48          .range([3, 12]);
49
50        var svg = d3.select("body")
51          .append("svg")
52          .attr("width", w)
53          .attr("height", h)
54
55        var barWidth = w / dataset.length - padding;
56
57        svg.selectAll("circle")
58          .data(dataset)
59          .enter()
60          .append("circle")
61          .attr("cx", function(d){
62            return xScale(d[0]);})
63          .attr("cy", function(d){
64            return yScale(d[1]);})
65          .attr("r", function(d){
66            return rScale(d[2]);})
67          .attr("fill", "slategrey");
68
69        /* Create the labels*/
70        svg.selectAll("text")
71          .data(dataset)
72          .enter()
73          .append("text")
74          .text(function(d){
75            return "[" + d[0] + ", " + d[1] + "]";
76          })
77          .attr("x", function(d){
78            return xScale(d[0]);})
79          .attr("y", function(d){
80            return yScale(d[1]) - 10;})
81          .attr("text-anchor", "middle")
82          .attr("font-size", "12px")
83          .attr("fill", "black");
84
85      </script>
86
87      <br>
88      <bf>
89      <footer style="color: grey">COS30045 Data Visualisation<br>
90        Joe Bloggs</footer>
91
92    </body>
93  </html>

```