data-vis\tech-diversity-gender.js

```
function TechDiversityGender() {

  // Offset
  x_offset = 100;
  y_offset = 100;
  // Name for the visualisation to appear in the menu bar.
  this.name = 'Gender Tech Diversity';

  // Each visualisation must have a unique ID with no special
  // characters.
  this.id = 'tech-diversity-gender';

  // Layout object to store all common plot layout parameters and
  // methods.
  this.layout = {
    // Locations of margin positions. Left and bottom have double margin
    // size due to axis and tick labels.
    leftMargin: width - x_offset * 9.5,
    rightMargin: width - x_offset * 1,
    topMargin: 100 + y_offset,
    bottomMargin: height,
    pad: 5,

    plotWidth: function() {
      return this.rightMargin - this.leftMargin;
    },

    // Boolean to enable/disable background grid.
    grid: true,

    // Number of axis tick labels to draw so that they are not drawn on
    // top of one another.
    numXTickLabels: 10,
    numYTickLabels: 8,
  };

  // Middle of the plot: for 50% line.
  this.midX = (this.layout.plotWidth() / 2) + this.layout.leftMargin;

  // Default visualisation colours.
  this.femaleColour = color('#C8102E');
  this.maleColour = color('#002147');

  // Property to represent whether data has been loaded.
  this.loaded = false;

  // Preload the data. This function is called automatically by the
  // gallery when a visualisation is added.
  this.preload = function() {
    var self = this;
    this.data = loadTable(
```

```
52        './data/tech-diversity/gender-2018.csv', 'csv', 'header',
53        // Callback function to set the value
54        // this.loaded to true.
55        function(table) {
56          self.loaded = true;
57        });
58
59    };
60
61    this.setup = function() {
62      // Font defaults.
63      textSize(16);
64    };
65
66    this.destroy = function() {
67    };
68
69    this.draw = function() {
70      if (!this.loaded) {
71        console.log('Data not yet loaded');
72        return;
73      }
74
75      // Draw Female/Male labels at the top of the plot.
76      this.drawCategoryLabels();
77
78      var lineHeight = (height*0.90 - this.layout.topMargin) /
79          this.data.getRowCount();
80
81      for (var i = 0; i < this.data.getRowCount(); i++) {
82
83        // Calculate the y position for each company.
84        var lineY = (lineHeight * i) + this.layout.topMargin;
85
86        // Create an object that stores data from the current row.
87        var company = {
88          // Convert strings to numbers.
89          'name': this.data.getString(i, 'company'),
90          'female': this.data.getNum(i, 'female'),
91          'male': this.data.getNum(i, 'male'),
92        };
93
94        // Draw the company name in the left margin.
95        fill(0);
96        noStroke();
97        textAlign('right', 'top');
98        text(company.name,
99             this.layout.leftMargin - this.layout.pad,
100            lineY);
101
102       // Draw female employees rectangle.
103       fill(this.femaleColour);
104       rect(this.layout.leftMargin,
105            lineY,
```

```
106             this.mapPercentToWidth(company.female),
107             lineHeight - this.layout.pad);
108
109       // Draw male employees rectangle.
110       fill(this.maleColour);
111       rect(this.layout.leftMargin + this.mapPercentToWidth(company.female),
112             lineY,
113             this.mapPercentToWidth(company.male),
114             lineHeight - this.layout.pad);
115     }
116
117     // Draw 50% line
118     stroke(150);
119     strokeWeight(1);
120     line(this.midX,
121          this.layout.topMargin,
122          this.midX,
123          this.layout.bottomMargin);
124
125   };
126
127   this.drawCategoryLabels = function() {
128     fill(0);
129     noStroke();
130     textAlign('left', 'top');
131     text('Female',
132          this.layout.leftMargin,
133          this.layout.pad + 170);
134     textAlign('center', 'top');
135     text('50%',
136          this.midX,
137          this.layout.pad + 170);
138     textAlign('right', 'top');
139     text('Male',
140          this.layout.rightMargin,
141          this.layout.pad + 170);
142   };
143
144   this.mapPercentToWidth = function(percent) {
145     return map(percent,
146                0,
147                100,
148                0,
149                this.layout.plotWidth());
150   };
151 }
152
```