

# A simple scatter plot

## Generate SVG

```
1 // A simple scatter plot
2 var width = ;
3 var height = ;
4
5 var margin = {top: ,
6               left: ,
7               right: ,
8               bottom:  };
9
10 var svg = d3.select("body")
11   .append("svg")
12   .attr("width", width)
13   .attr("height", height);
```

## Define data

```
15 // Generate data
16
17 var data = [{x: , y: ,
18             {x: , y: ,
19             {x: , y: ,
20             {x: , y: ,
21             {x: , y: ,
22             {x: , y: ,
23             ];
```

## Define scales

```
25 // Create scales
26 var xScale = d3.scaleLinear()
27   .domain([, ])
28   .range([margin.left, width - margin.right]);
29
30 var yScale = d3.scaleLinear()
31   .domain([, ])
32   .range([height - margin.bottom, margin.top]);
```

## Draw axes

```
34 // Draw axes
35 var xAxis = svg.append("g")
36   .attr("transform", "translate(0, " + (height - margin.bottom) + ")")
37   .call(d3.axisBottom().scale(xScale));
38
39 var yAxis = svg.append("g")
40   .attr("transform", "translate(" + margin.left + ", 0)")
41   .call(d3.axisLeft().scale(yScale));
```

## Bind/draw data

```
43 // Draw circles for scatter plot
44 var circles = svg.selectAll("circle")
45   .data(data)
46   .enter()
47   .append("circle")
48   .attr("cx", function(d) { return xScale(d.x); })
49   .attr("cy", function(d) { return yScale(d.y); })
50   .attr("r", 3);
```

# A simple bar chart

## Generate SVG

```
1 // A simple bar chart
2 var width =  ;
3 var height =  ;
4
5 var margin = {top: ,
6               left: ,
7               right: ,
8               bottom: };
9
10 var svg = d3.select("body")
11   .append("svg")
12   .attr("width", width)
13   .attr("height", height);
```

## Define data

```
15 // Generate data
16
17 var data = [{x: , y: },
18             {x: , y: },
19             {x: , y: },
20             {x: , y: },
21             {x: , y: },
22             {x: , y: }
23 ];
```

## Define scales

```
25 // Create scales
26 var xScale = d3.scaleBand()
27   .domain([, , , , , ])
28   .rangeRound([margin.left, width - margin.right]);
29
30 var yScale = d3.scaleLinear()
31   .domain([, ])
32   .range([height - margin.bottom, margin.top]);
```

## Draw axes

```
34 // Draw axes
35 var xAxis = svg.append("g")
36   .attr("transform", "translate(0," + (height - margin.bottom) + ")")
37   .call(d3.axisBottom().scale(xScale));
38
39 var yAxis = svg.append("g")
40   .attr("transform", "translate(" + margin.left + ",0)")
41   .call(d3.axisLeft().scale(yScale));
```

## Bind/draw data

```
43 // Draw bars for bar chart
44 var barWidth = 20;
45 var bars = svg.selectAll("rect")
46   .data(data)
47   .enter()
48   .append("rect")
49   .attr("x", function(d) {
50     return xScale(d.x) + xScale.bandwidth()/2 - barWidth/2;
51   })
52   .attr("y", function(d) { return yScale(d.y); })
53   .attr("width", barWidth)
54   .attr("height", function(d) {
55     return height - margin.bottom - yScale(d.y);
56   });
```

# A simple line chart

## Generate SVG

```
1 // A simple bar chart
2 var width =  ;
3 var height =  ;
4
5 var margin = {top: ,
6               left: ,
7               right: ,
8               bottom: };
9
10 var svg = d3.select("body")
11   .append("svg")
12   .attr("width", width)
13   .attr("height", height);
```

## Define data

```
15 // Generate data
16
17 var data = [{x: , y: },
18             {x: , y: },
19             {x: , y: },
20             {x: , y: },
21             {x: , y: },
22             {x: , y: }
23 ];
```

## Define scales

```
25 // Create scales
26 var xScale = d3.scalePoint()
27   .domain([, , , , , ])
28   .rangeRound([margin.left, width - margin.right]);
29
30 var yScale = d3.scaleLinear()
31   .domain([, ])
32   .range([height-margin.bottom, margin.top]);
```

## Draw axes

```
34 // Draw axes
35 var xAxis = svg.append("g")
36   .attr("transform", "translate(0," + (height-margin.bottom) + ")")
37   .call(d3.axisBottom().scale(xScale));
38
39 var yAxis = svg.append("g")
40   .attr("transform", "translate(" + margin.left + ",0)")
41   .call(d3.axisLeft().scale(yScale));
```

## Bind/draw data

```
43 // Draw bars for bar chart
44 var line = d3.line()
45   .x(function(d) { return xScale(d.x); })
46   .y(function(d) { return yScale(d.y); });
47
48 var drawLine = svg.append("path")
49   .datum(data)
50   .attr("class", "line")
51   .attr("fill", "none")
52   .attr("stroke", "steelblue")
53   .attr("stroke-width", 2)
54   .attr("d", line);
```