1. **Selections & Transitions** in previous lab **d3lab2.html**

Understanding D3 selections <http://prcweb.co.uk/lab/selection/>

More other d3 tutorial: <https://github.com/mbostock/d3/wiki/Tutorials>

1. **Grouping & Transforming:**

|  |
| --- |
| * 1. Use d3 selector to create 3 circle svg shapes, fill with yellow color and black border.   The three circles cx = [50,100,150]; cy=50; r=20.  //create a canvas  //create circle svgs |
| * 1. Move three circles to new cx = [ 80, 130, 180]   Hint: group all shapes together, and move them all in once, by using *translate()*;    // group svg shapes to the same graphics group <g></g>  // transform() translate(30,0) |
| * 1. Scale up all the shapes 2 times bigger.   canvas.attr("transform","scale(2)"); |
| * 1. Rotate all the shapes.   canvas.transition().attr("transform","rotate(30)"); |
| * 1. Just rotate the third shape. |

<https://github.com/trinary/d3-transform>

1. **Data:**

|  |
| --- |
| var circleData = [  { "cx": 50, "cy": 50, "r": 20, "color" : "yellow" , "stroke":"black"},  { "cx": 100, "cy": 50, "r": 20, "color" : "lightblue" , "stroke":"black"},  { "cx": 150, "cy": 50, "r": 20, "color" : "pink", "stroke":"black" }  ];  var circles = canvas.**selectAll**("circle")  .**data**(circleData)  .**enter**()  .**append**("circle");    var circleAttributes = circles  .attr("cx", **function (d) { return d.cx; }** )  .attr("cy", function (d) { return d.cy; } )  .attr("r", function (d) { return d.r; } )  .style("fill", function (d) { return d.color; } )  .style("stroke", function (d) { return d.stroke; } ); |
| * 1. Create x axis to graphic   var x = **d3.scale.linear().domain**([0,400]).**range**([0,400]);  var xAxis = d3.svg.axis().scale(x).orient("top");  canvas.append("g")  .attr("class", "axis")  .call(xAxis); |
| * 1. Create y axis to graphic   var y = **d3.scale.identity().domain**([0,300]);  var yAxis = d3.svg.axis().scale(y).orient('left');    canvas.append("g")  .attr("class", "axis")  .call(yAxis); |

Good reference: https://www.dashingd3js.com/table-of-contents