A Developer Diary

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February 19, 2016 By Abhisek Jana — Leave a Comment (Edit)

Create custom progress chart using d3.js – Part2

We will create another custom progress chart in this **Create custom progress chart using d3.js – Part2**. In the previous article we have animated a small circle along with the progress indicator.

Here we will have two small circle instead of one at both the starting and ending point.

Here is the demo.

HTML   CSS   JS   Result   E D I T   O N

Progress Status

43%

Resources   1×   0.5×   0.25×   Rerun
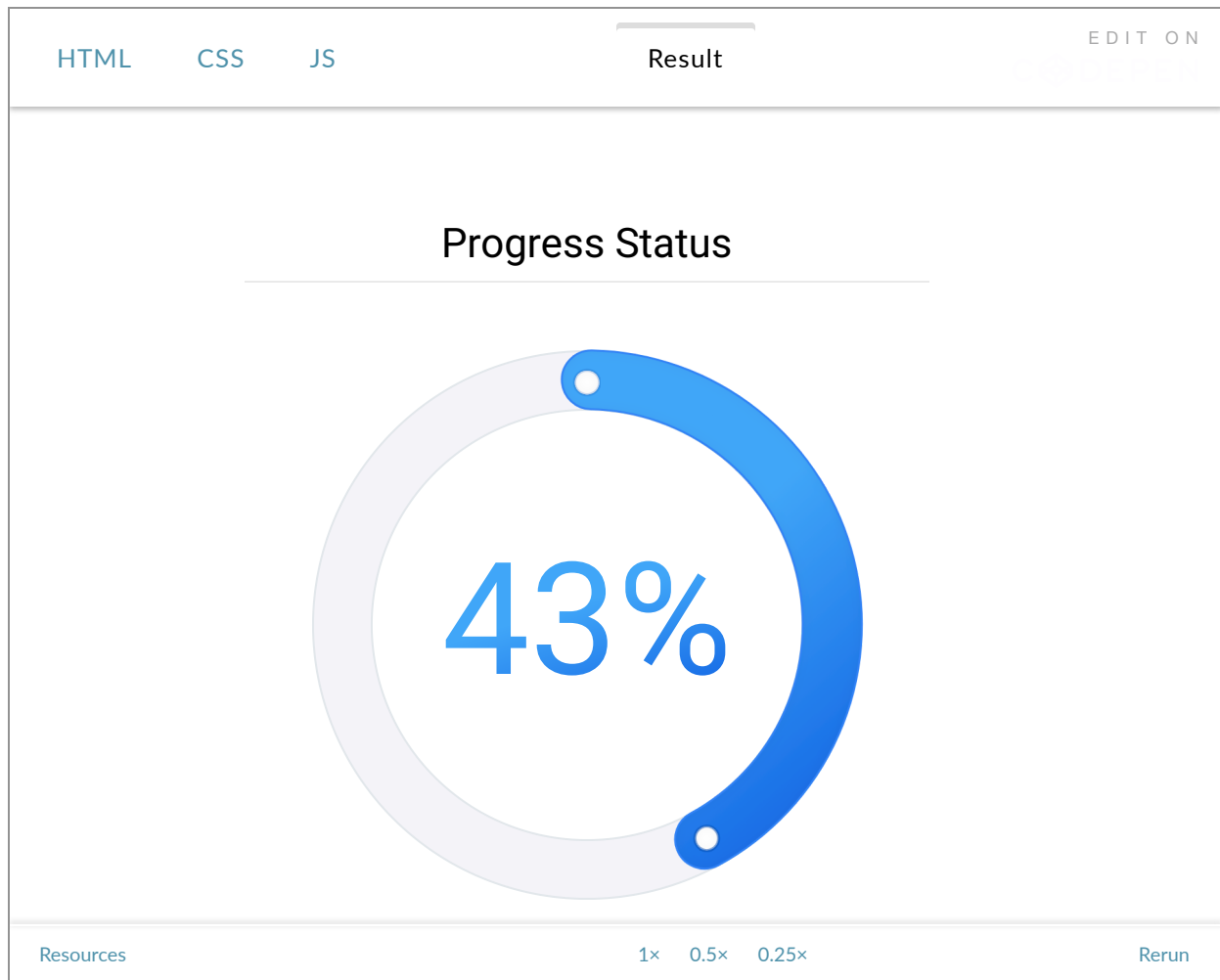
This chart is bit complex than the one we created in part 1. Here the end circle is not exactly at the end of the foreground arc, its little bit inside. In order to capture the correct coordinate we need to animate the dummy arc separately.

I will only go though whats different here from the part 1. You can find the full code in github.

We will be adding some shadow and gradient. I have defined them as separate function. Lets call them after creating the svg element.

```
createShadow(svg);
createGradient(svg,"gradient","#40a6f8","#1a70e7");
```

Create the start circle and place it on top.

```
var startCircle=svg.append('circle')
    .attr({
```

```
        r:6,
        transform:'translate(0,'+ (-outerRadius+16) +')'
    })
    .style({
        stroke:'#0751b7',
        'stroke-width':1.5,
        'stroke-opacity':.2,
        fill:'#fff',
        filter:'url(#inset-shadow)'
    });
```

Create the end circle and place it at the same place as the start circle.

```
var endCircle=svg.append('circle')
    .attr({
        r:6,
        transform:'translate(0,'+ (-outerRadius+16) +')'
    })
    .style({
        stroke:'#0751b7',
        'stroke-width':1.5,
        'stroke-opacity':.5,
        opacity:0,
        fill:'#fff',
        filter:'url(#inset-shadow)'
    });
```

We will create two Arc Tween function. The first one interpolates the foreground and the text in middle.

```
var arcTween=function(transition,percent,oldValue) {
    transition.attrTween("d", function (d) {

        var newAngle=(percent/100)*(2*Math.PI);
```

```
        var interpolateForeground =
d3.interpolate(d.endAngle, newAngle);

        var interpolateText = d3.interpolate(oldValue,
percent);

        return function (t) {
            d.endAngle = interpolateForeground(t);



middleTextCount.text(Math.floor(interpolateText(t))+'%');

            return arcProgress(d);
        };
    });
};
```

In the 2nd Arc Tween function we will use `newAngle -.13` as the newAngle so that the circle could be placed at correct location. We will also change the opacity to 0 when the new angle reaches near 360 degree.

```
var arcTweenDummy=function(transition,percent) {
    transition.attrTween("d", function (d) {

        var newAngle=(percent/100)*(2*Math.PI);

        var interpolateCircle =
d3.interpolate(d.endAngle, newAngle -.13);

        return function (t) {
            d.endAngle= interpolateCircle(t);
```

```
              var pathDummyCircle = arcDummy(d);

              var coordinate = pathDummyCircle.split("L")
[1].split("A")[0];

              if(d.endAngle>.25 && d.endAngle <
(2*Math.PI-.14))
                  endCircle.style('opacity',1);
              else
                  endCircle.style('opacity',0);

              endCircle.attr('transform', 'translate(' +
coordinate+ ')');

              return pathDummyCircle;
          };
      });
};
```
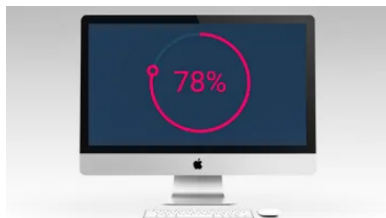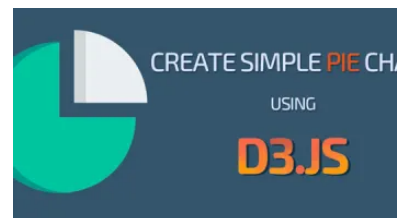
Find the full code in github.

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