

D3.js

- description : D3.js
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- lastupdate : 2020-07-13

Chart libraries for javascript

1. [D3](#)
2. [GOOGLE CHART](#)
3. [AMCHARTS](#)
4. [JSCharting](#)
5. [HIGHCHARTS](#)

D3.js ?

Data - Driven Documents , Javascript

가

- [D3](#)
- CDN

```
<script src="https://d3js.org/d3.v5.min.js"></script> //d3.js v.5
```

- d3.select() :
- d3.selectAll() :
- .data() : 가
- .enter() : 가 ,
- .append() : 가

- ()

Chart.js

Chart.js

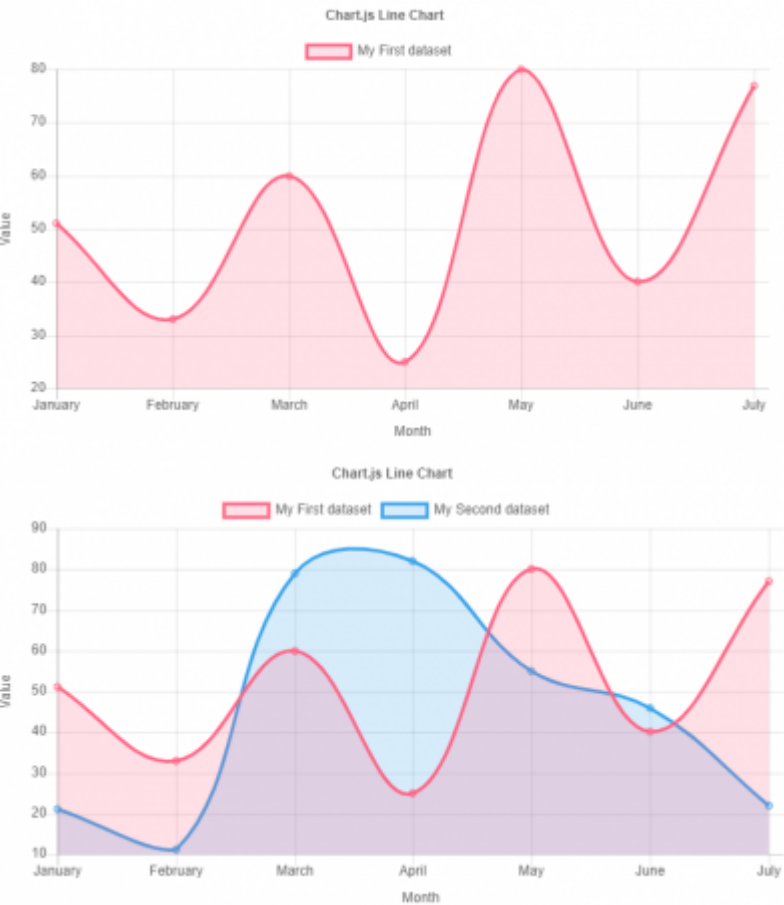
CDN

```
<script src="https://cdn.jsdelivr.net/npm/chart.js@2.8.0"></script>
```

Chart.js

-

Line Chart



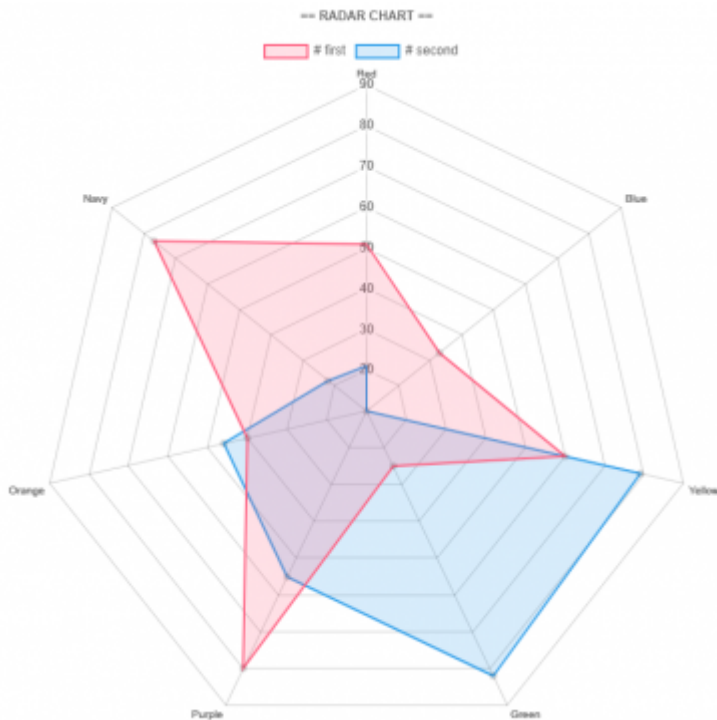
```
<div>  
  <canvas id="myChart" width="700" height="400"></canvas>  //  가  
  canvas  
</div>
```

```

<script>
    var config = new
Chart(document.getElementById("myChart").getContext('2d'),{
    type: 'line',    //
    data: {
        labels: ['January', 'February', 'March', 'April', 'May',
'June', 'July'],
        datasets: [{                                // datasets
            label: 'My First dataset'
            , backgroundColor: 'rgba(255, 99, 132, 0.2)'
            , borderColor: 'rgb(255, 99, 132)'
            , data: [51, 33, 60, 25, 80, 40, 77]
            , fill: true
        }]
    },
    options: {
        responsive: false,    //
        title: {
            display: true,
            text: 'Chart.js Line Chart'
        },
        scales: {
            xAxes: [{
                display: true,                // x
                scaleLabel: {
                    display: true,            //
                    labelString: 'Month'      //
                }
            }],
            yAxes: [{
                display: true,
                scaleLabel: {
                    display: true,
                    labelString: 'Value'
                },
                ticks: {
                    beginAtZero: false,    // true y 0
                    stepSize: 10
                }
            }]
        }
    }
});

```

Radar Chart



```
<div style="width: 700px; height: 700px;">
  <canvas id="myChart"></canvas>
</div>

<script>
  var ctx = document.getElementById("myChart").getContext('2d');
  var radarOptions = {
    maintainAspectRatio: false // false canvas가 div
    가 . default = true.
    , title: {
      display: true,
      text: '== RADAR CHART =='
    }
    , scale: {
      angleLines: {
        display: true //
      }
    }
  }

  var myChart = new Chart(ctx, {
    type: 'radar',
    data: {
      labels: ["Red", "Blue", "Yellow", "Green", "Purple",
"Orange", "Navy"],
      datasets: [{
        label: '# first'
        , data: [51, 33, 60, 25, 80, 40, 77]
```

```

        , fill: true
        , backgroundColor: 'rgba(255, 99, 132, 0.2)'
        , borderColor: 'rgb(255, 99, 132)'
        , borderWidth: 2
      }
    ], {
      label: '# second'
      , data: [21, 10, 79, 82, 55, 46, 22]
      , fill: true
      , backgroundColor: 'rgba(54, 162, 235, 0.2)'
      , borderColor: 'rgb(54, 162, 235)'
      , borderWidth: 2
    }
  ]
},
options: radarOptions
});
</script>

```

JSON

```

<div style="width: 700px; height: 700px;">
  <canvas id="myChart"></canvas>
</div>

<script>
  // JSON
  var jsonData = [{
    "siteId": "P001"
    , "siteNm": " "
    , "stdCount": 340
  }
  , {
    "siteId": "P002"
    , "siteNm": " "
    , "stdCount": 275
  }
  , ...
  ]

  // value key 가 .
  var labels = jsonData.map(function(e) {
    return e.siteNm; // return " " , " "
  });

  var config = new
  Chart(document.getElementById("myChart").getContext('2d'), {
    type: 'line',
    data: {
      labels: labels, // 가 .
    }
  });

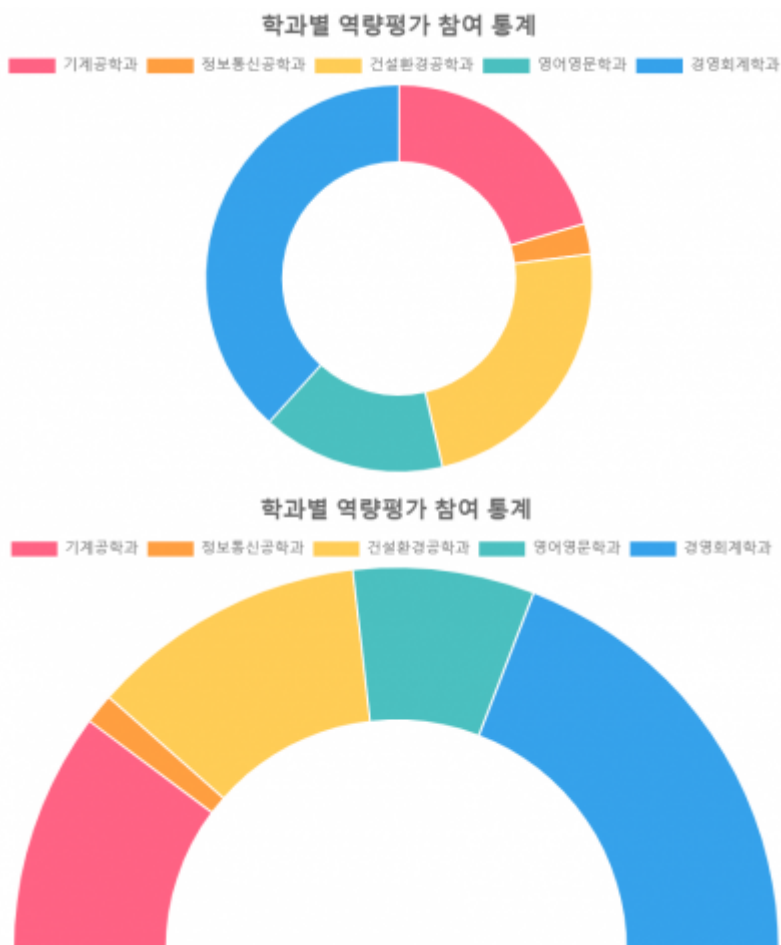
```

```

    datasets: [{
      label: 'My First dataset'
      , backgroundColor: 'rgba(255, 99, 132, 0.2)'
      , borderColor: 'rgb(255, 99, 132)'
      , data: [51, 33, 60, 25, 80, 40, 77]
      , fill: true
    },
  ],
  //

```

Doughnut Chart



```

<div>
  <canvas id="myChart" width="900px" height="500px"></canvas>
</div>

<script>
  var ctx = document.getElementById('myChart').getContext('2d');

  var jsonData = [{
    "departId": "001"
    , "departNm": " "
    , "count": 48
  }

```

```

    },
    {
      "departId": "002"
      , "departNm": " "
      , "count": 6
    }
    , ...
  ]

  var data = jsonData.map(function(e) {
    return e.count;
  });
  var label = jsonData.map(function(e) {
    return e.departNm;
  });

  var config = {
    type: 'doughnut',
    data: {
      datasets: [{
        data: data,
        backgroundColor: ['#ff6384', '#ff9f40', '#ffcd56',
'#4bc0c0', '#36a2eb', ],
      }],
      labels: label
    },
    options: {
      rotation: 1 * Math.PI, // rotation circumference
      circumference: 1 * Math.PI,
      cutoutPercentage: 60, // 가
      responsive: false,
      legend: {
        position: 'top', //
        'top', 'left', 'bottom', 'right',
        labels: {
          fontSize: 16, //
          boxWidth: 50, //
          padding: 15 //
        }
      },
      title: {
        display: true,
        text: '가',
        fontSize: 25 //
      },
      animation: {
        animateScale: true, // true

```

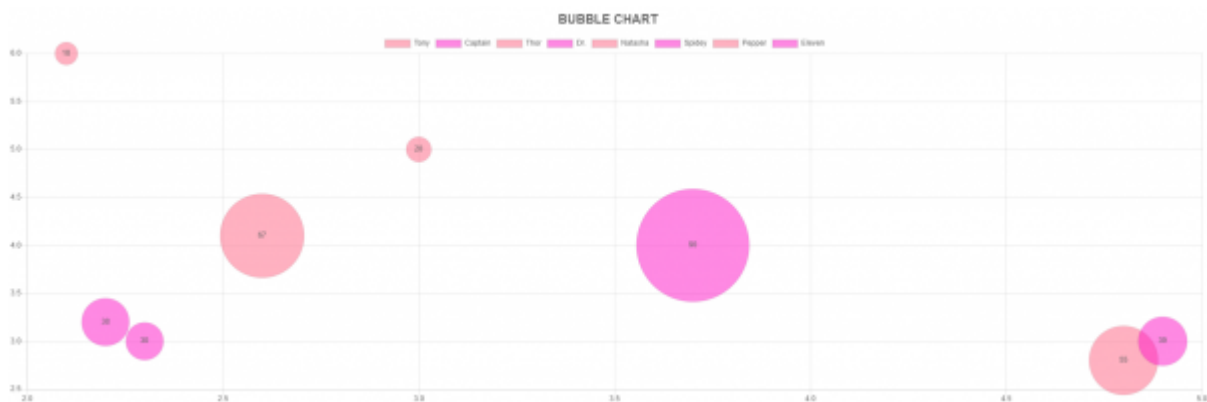
```

        animateRotate: true // true
    }
}
};

var doughnut = new Chart(ctx, config);
</script>

```

Bubble Chart



```

<div>
  <canvas id="myChart"></canvas>
</div>

<script>

var options = {
  maintainAspectRatio: false,
  type: 'bubble',
  options: {
    responsive: true,
    aspectRatio: 3, // 가 : . 1
    title: {
      display: true,
      text: 'BUBBLE CHART',
      fontSize: 20
    },
  },
  data: {
    datasets: [ // dataset 가
      {
        label: 'Tony',
        data: [
          {
            x: 3, // x

```

```

        y: 5, // y
        r: 20 //
    }
  ],
  backgroundColor: "rgba(255, 99, 132, 0.5)",
  hoverBackgroundColor: "rgba(255, 99, 132, 2)" //
},
{
  label: 'Captain',
  data: [
    {
      x: 3.7,
      y: 4,
      r: 90
    }
  ],
  backgroundColor: "rgba(255, 19, 200, 0.5)",
  hoverBackgroundColor: "rgba(255, 19, 200, 2)"
},
{
  label: 'Thor',
  data: [
    {
      x: 2.1,
      y: 6,
      r: 18
    }
  ],
  backgroundColor: "rgba(255, 99, 132, 0.5)",
  hoverBackgroundColor: "rgba(255, 99, 132, 2)"
}, ...
]
}

var ctx = document.getElementById('myChart').getContext('2d');
new Chart(ctx, options);

</script>

```

R&D

Ref

[D3.js](#)

[eleven](#), [, D3.js](#), [d3](#), [chart.js](#),

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Last update: **2022/03/14 18:39**

