

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

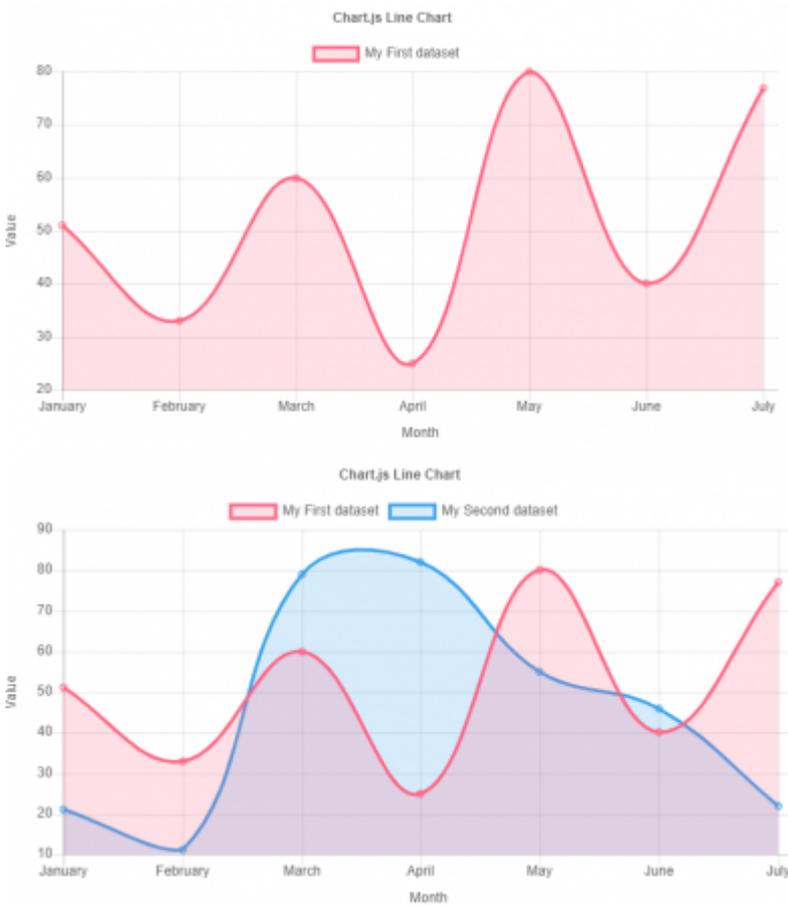
CDN

```
<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>
```

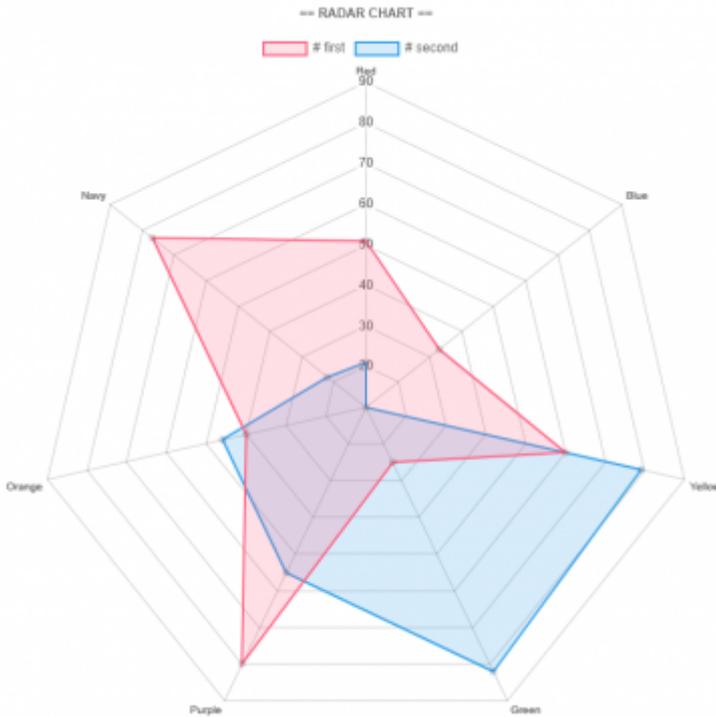
```

<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, // . false
    , canvas // . default = true =

    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
          // y
          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: {

```

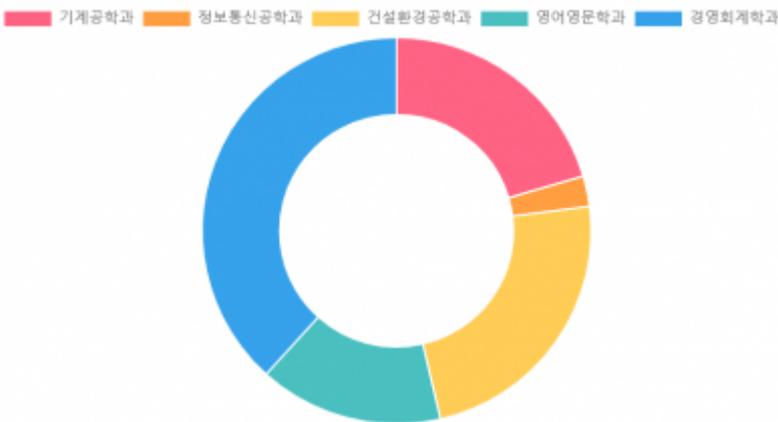
```

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
}]
},
//

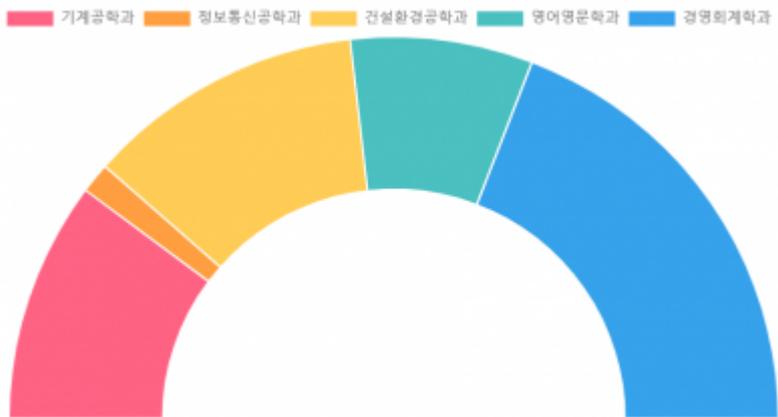
```

Doughnut Chart

학과별 역량평가 참여 통계



학과별 역량평가 참여 통계



```

<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
    1 * Math.PI                       가
    circumference: 1 * Math.PI,
    cutoutPercentage: 60,           // 가
    .0
    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

```

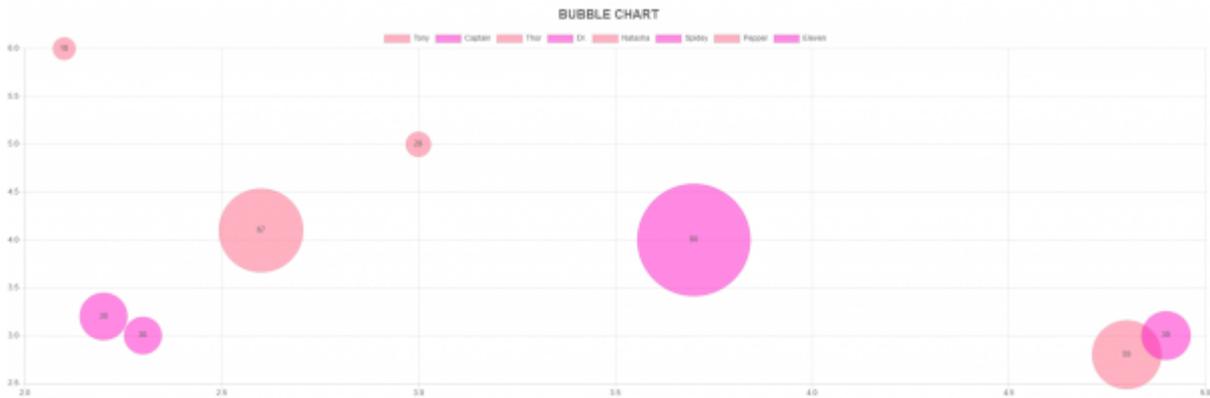
```

    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
    // canvas css 가
    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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