

# chart.js

```
document.addEventListener('DOMContentLoaded', function()
{
    //Grab stats & metrics
    if (typeof metricsData !== 'undefined')
    {
        // === Severity Pie Chart ===
        const severityCtx = document.getElementById('severityPie');
        if (severityCtx) {
            new Chart(severityCtx, {
                type: 'pie',
                data: {
                    labels: ['Critical', 'High', 'Medium', 'Low'], //severity
                    buckets we care about
                    datasets: [{
                        data: [
                            metricsData.severity.critical,
                            metricsData.severity.high,
                            metricsData.severity.medium,
                            metricsData.severity.low
                        ], //matches labels above, in order
                        backgroundColor: [
                            '#f94144', //critical-red
                            '#f8961e', //high-orange
                            '#43aa8b', //medium-green
                            '#90be6d' //low-light-green
                        ],
                        borderWidth: 1
                    }
                ],
                options: {
                    responsive: true,
                    plugins: {
                        legend: {
                            position: 'right' //keep legend beside pie for
                            quick reading
                        },
                        title: {
                            display: true,
                            text: 'Severity Distribution' //dashboard headline
                        }
                    }
                }
            });
        }
    }
});
```

```

        }
    });
}

// === CWE Bar Chart ===
if (metricsData.cweStats && Object.keys(metricsData.cweStats).length >
0) {
    const cweCtx = document.getElementById('cweBar');
    if (cweCtx) {
        const cweLabels = Object.keys(metricsData.cweStats); // CWE
names/codes
counts

        const cweData = Object.values(metricsData.cweStats); // their

        new Chart(cweCtx, {
            type: 'bar',
            data: {
                labels: cweLabels, //bar labels = CWE types
                datasets: [{
                    label: 'Count', //count of each type
                    data: cweData,
                    backgroundColor: '#4361ee', //unified color for
bars

                    borderWidth: 1
                }]
            },
            options: {
                indexAxis: 'y', //horizontal bars (easier for wide
lists)

                responsive: true,
                plugins: {
                    legend: {
                        display: false //don't show legend (single
dataset)

                    },
                    title: {
                        display: true,
                        text: 'Top Vulnerability Types' //dashboard
headline

                    }
                },
                scales: {
                    x: {
                        beginAtZero: true //bar count always starts at
0

                    }
                }
            }
        });
    }
}

```

```

    }
  }
});
}
}

// === CWE by Severity Stacked Bar Chart ===
if (metricsData.cweSeverity &&
Object.keys(metricsData.cweSeverity).length > 0) {
  const severityTrendCtx =
document.getElementById('severityTrendChart');
  if (!severityTrendCtx) {
    //If the canvas doesn't exist, add it into the DOM
    const trendParent = document.getElementById('trendChart');
    if (trendParent) {
      const newCanvas = document.createElement('canvas');
      newCanvas.id = 'severityTrendChart';
      trendParent.parentNode.appendChild(newCanvas);
    }
  }

  //Now fetch actual canvas we want to chart onto
  const severityCtx = document.getElementById('severityTrendChart');
  if (severityCtx) {
    const cweLabels = Object.keys(metricsData.cweSeverity); //CWE
types/codes

    const severityLevels = ['critical', 'high', 'medium', 'low'];
//order matters for stacks
    const colors = ['#f94144', '#f8961e', '#43aa8b', '#90be6d'];
//matching pie chart colors

    // Build the severity breakdown for each CWE (one dataset per
severity level)
    const datasets = severityLevels.map((sev, i) => ({
      label: sev.charAt(0).toUpperCase() + sev.slice(1),
//"Critical", "High", "Meidum", "Low".
      data: cweLabels.map(cwe => metricsData.cweSeverity[cwe]
[sev] || 0), //value for each cwe
      backgroundColor: colors[i]
    }));

    new Chart(severityCtx, {
      type: 'bar',
      data: {
        labels: cweLabels, //x-axis: CWE types
        datasets: datasets //stacks: severity per type

```

```

        },
        options: {
            responsive: true,
            plugins: {
                title: {
                    display: true,
                    text: 'Vulnerability Types by Severity'
                }
            }
        },
        scales: {
            x: {
                stacked: true //stack severity segments next
            },
            y: {
                stacked: true //enable stacking vertically
            }
        }
    },
    //dashboard headline
    to each CWE
    (standard for bar chart)
});

```