

Bar Charts from SQL Data

Bar charts are useful for comparing values between categories.

In this tutorial, the number of security events at each risk level will be displayed as a bar chart.

Step 1 - Create the SQL Query

```
SELECT

    risk_level,

    COUNT(*) AS total

FROM cyber_security_events

GROUP BY risk_level;
```

Example result:

risk_level	total
Low	15
Medium	8
High	3

Step 2 - Retrieve the Data with PHP

```
<?php
```

```
$sql = "

SELECT

    risk_level,

    COUNT(*) AS total

FROM cyber_security_events

GROUP BY risk_level

";

$result = $pdo->query($sql);

$data = [];

while($row = $result->fetch())
{

    $data[] = [

        $row['risk_level'],

        (int)$row['total']

    ];

}

?>
```

Step 3 - Create the Chart Container

```
<div id="chart_div"
      style="width:900px; height:500px;">
</div>
```

Step 4 - Create the Bar Chart

```
<script>

google.charts.load(
    'current',
    {'packages':['corechart']}
);

google.charts.setOnLoadCallback(drawChart);

function drawChart()
{
    var data =

        google.visualization.arrayToDataTable([

            ['Risk Level','Events'],

            ...<?php echo json_encode($data); ?>

        ]);

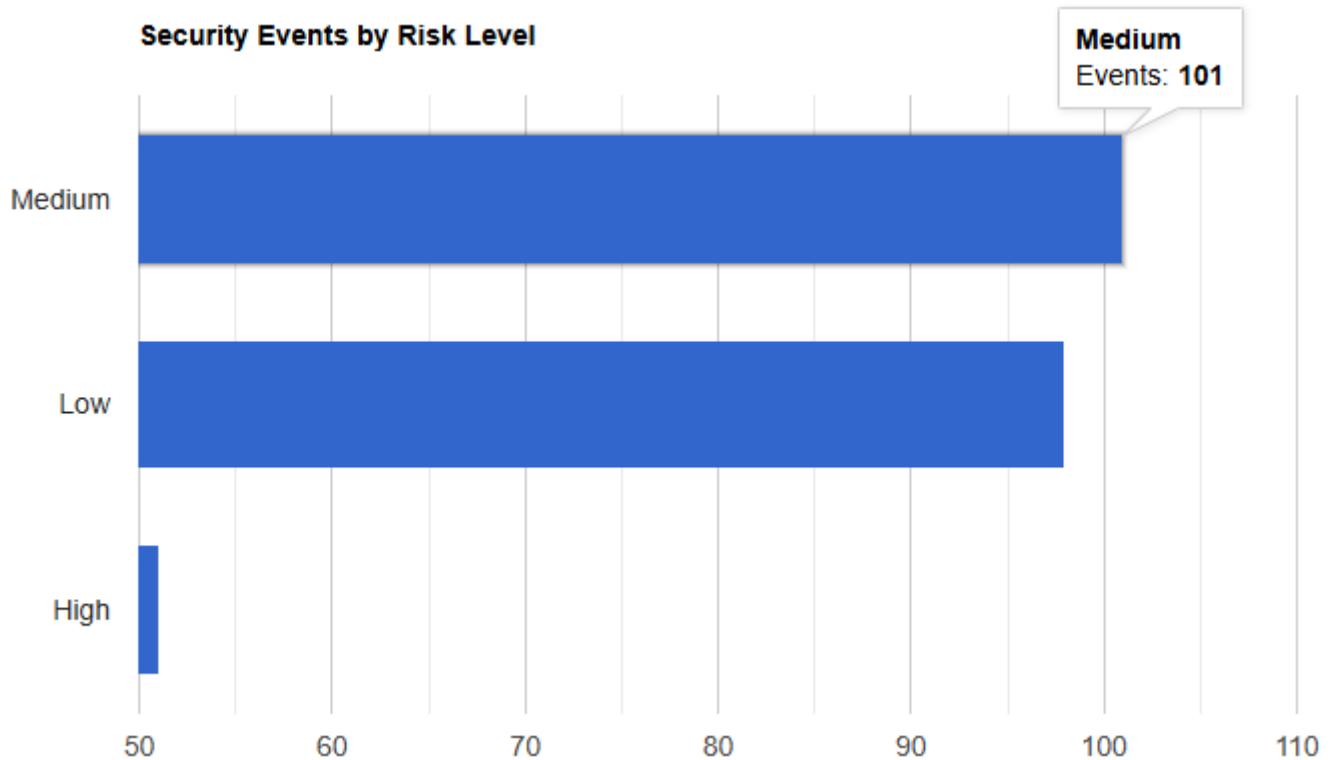
    var options = {

        title:'Security Events by Risk Level',

        legend:{position:'none'}

    };
}
```

```
var chart =  
  
    new google.visualization.BarChart(  
  
        document.getElementById('chart_div')  
  
    );  
  
chart.draw(data, options);  
  
}  
  
</script>
```



Changing the Chart Type

Only one line of code needs to change.

Pie Chart:

```
new google.visualization.PieChart()
```

Bar Chart:

```
new google.visualization.BarChart()
```

Column Chart:

```
new google.visualization.ColumnChart()
```

Line Chart:

```
new google.visualization.LineChart()
```

Complete Example

```
<?php

$sql = "

SELECT

    risk_level,

    COUNT(*) AS total

FROM cyber_security_events

GROUP BY risk_level

";

$result = $pdo->query($sql);

$data = [];

while($row = $result->fetch())
{
```

```
$data[] = [  
  
    $row['risk_level'],  
  
    (int)$row['total']  
  
];  
  
}  
  
?>  
  
<!DOCTYPE html>  
  
<html>  
  
<head>  
  
<script src="https://www.gstatic.com/charts/loader.js"></script>  
  
</head>  
  
<body>  
  
<div id="chart_div"  
    style="width:900px; height:500px;">  
</div>  
  
<script>  
  
google.charts.load(  
    'current',  
    {'packages':['corechart']}  
);  
  
google.charts.setOnLoadCallback(drawChart);  
  
function drawChart()
```

```
{

    var data =

        google.visualization.arrayToDataTable([

            ['Risk Level','Events'],

            ...<?php echo json_encode($data); ?>

        ]);

    var options = {

        title:'Security Events by Risk Level',

        legend:{position:'none'}

    };

    var chart =

        new google.visualization.BarChart(

            document.getElementById('chart_div')

        );

    chart.draw(data, options);

}

</script>

</body>

</html>
```

Next Tutorial

Line Charts from SQL Data

Learn how to display trends and changes over time using a line chart.

Revision #3

Created 2026-06-21 23:39:50 UTC by Mr Napper

Updated 2026-06-21 23:52:37 UTC by Mr Napper