



# WEB COMPONENTS IN PRACTICE

[leif@vaadin.com](mailto:leif@vaadin.com)

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# WEB COMPONENTS

STANDARD BUILDING BLOCKS FOR THE WEB

# W3C Standards

## Completed Work

2014-03-18	HTML Templates
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Group Note <i>Nightly Draft</i>
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## Drafts

2017-09-05	Shadow DOM
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Working Draft <i>Nightly Draft</i>
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2016-10-13	Custom Elements
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Working Draft <i>Nightly Draft</i>
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2016-02-25	HTML Imports
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Working Draft <i>Nightly Draft</i>
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Status on Oct 2, 2017

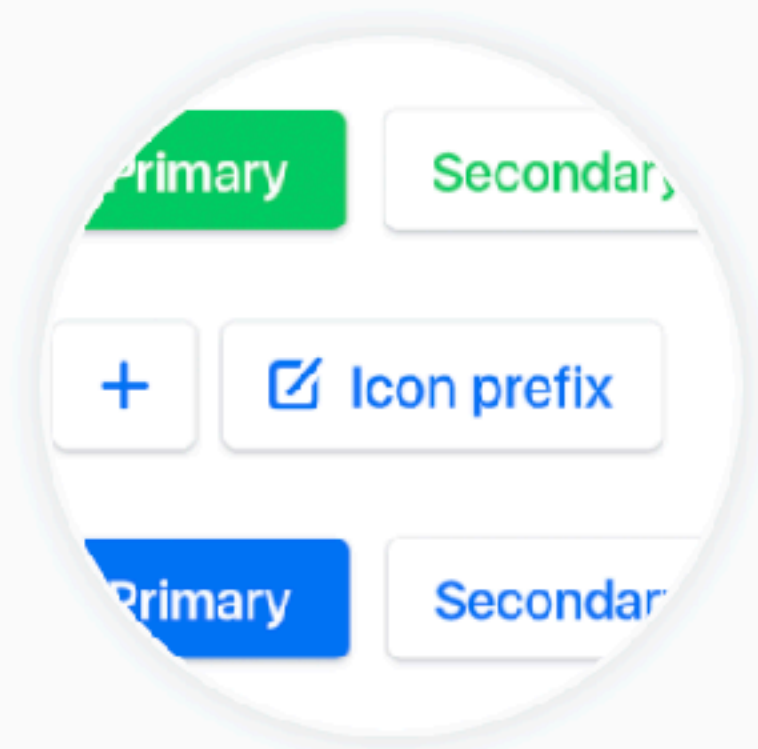
Browser support	 CHROME	 OPERA	 SAFARI	 FIREFOX	 EDGE
 TEMPLATES	 STABLE	 STABLE	 STABLE	 STABLE	 STABLE
 CUSTOM ELEMENTS	 STABLE	 STABLE	 STABLE	 POLYFILL  DEVELOPING	 POLYFILL  CONSIDERING
 SHADOW DOM	 STABLE	 STABLE	 STABLE	 POLYFILL  DEVELOPING	 POLYFILL  CONSIDERING
 <code>&lt;SCRIPT TYPE="MODULE"&gt;</code>	 STABLE	 STABLE	 10.1	 FLAG IN 54	 FLAG IN 15
 HTML IMPORTS	 STABLE	 STABLE	 POLYFILL  ON HOLD	 POLYFILL  ON HOLD	 POLYFILL  CONSIDERING

<https://custom-elements-everywhere.com/>



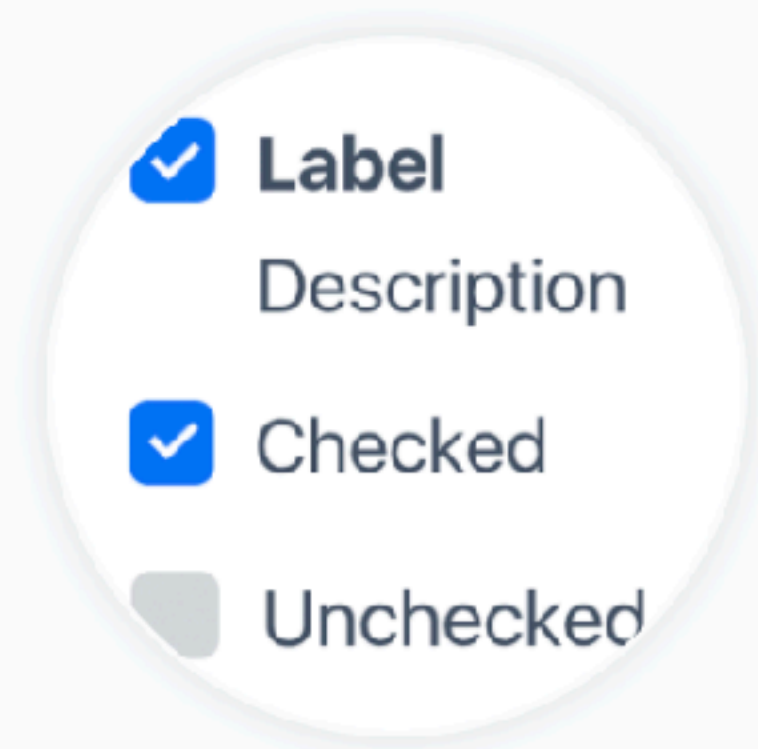
# VAADIN ELEMENTS

UI COMPONENTS FOR BUILDING GREAT WEB APPS



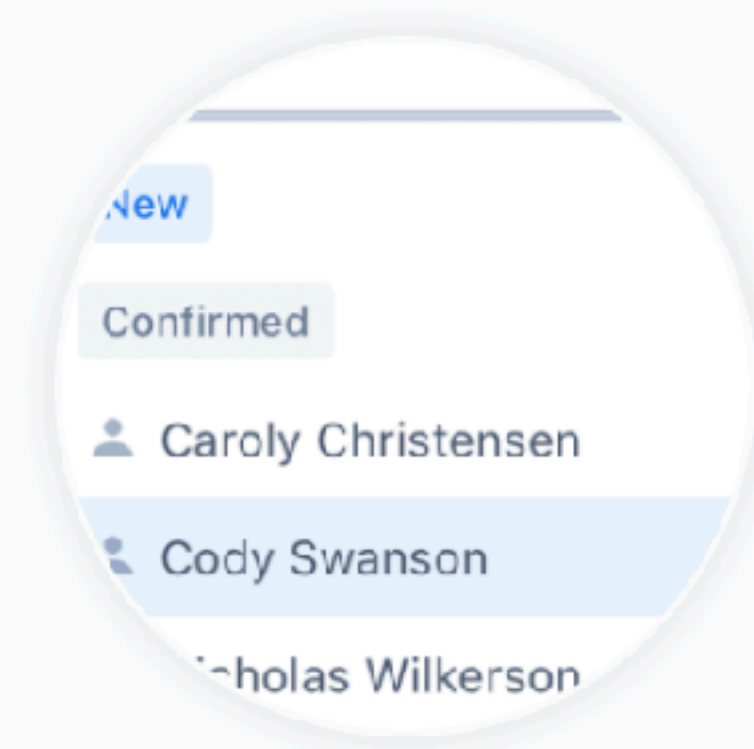
## BUTTON

Sometimes things just click.



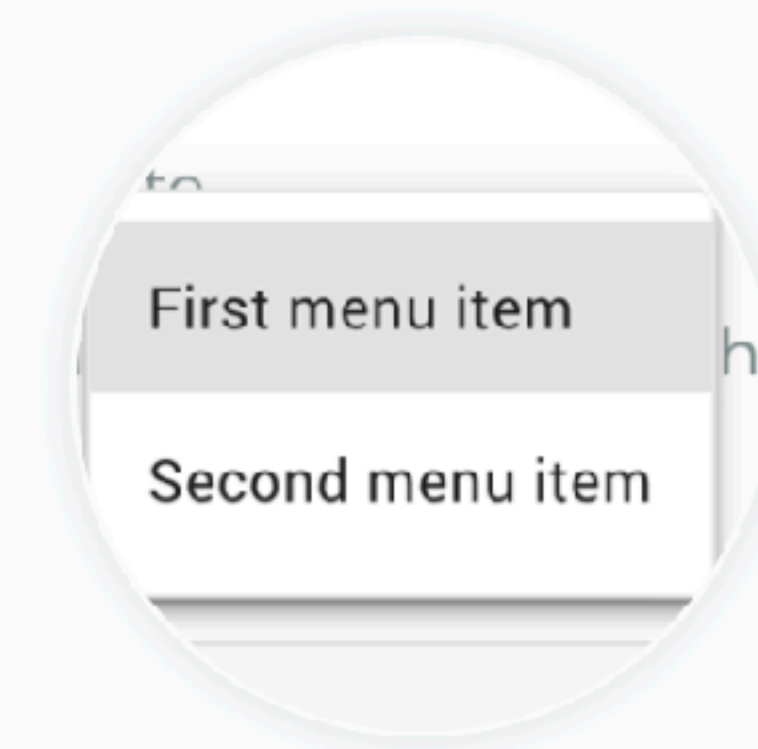
## CHECKBOX

Check this out!



## COMBO BOX

Filterable select element.



## CONTEXT MENU

Context is everything



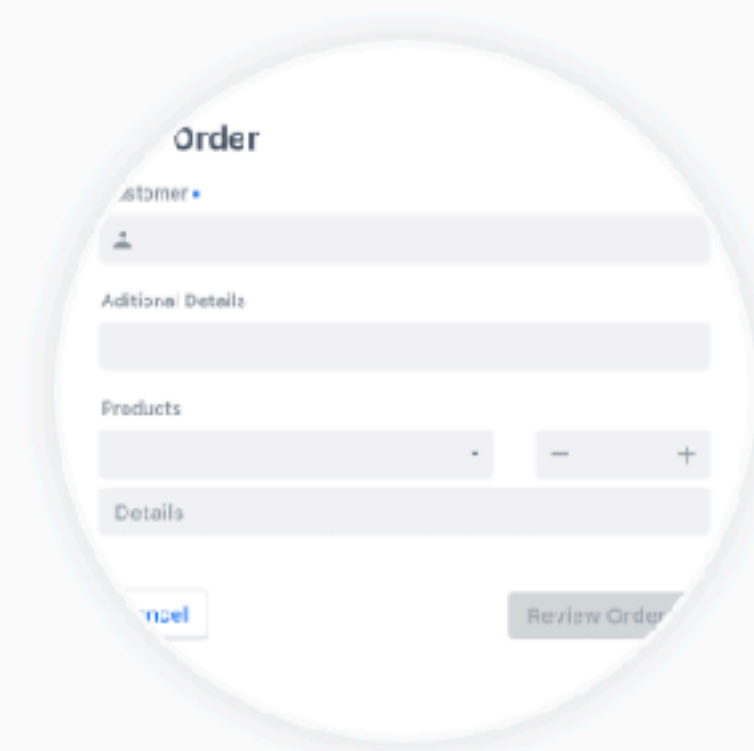
## DATE PICKER

Select a date from a dropdown.



## DIALOG

It's important to have an open dialog.



## FORM LAYOUT

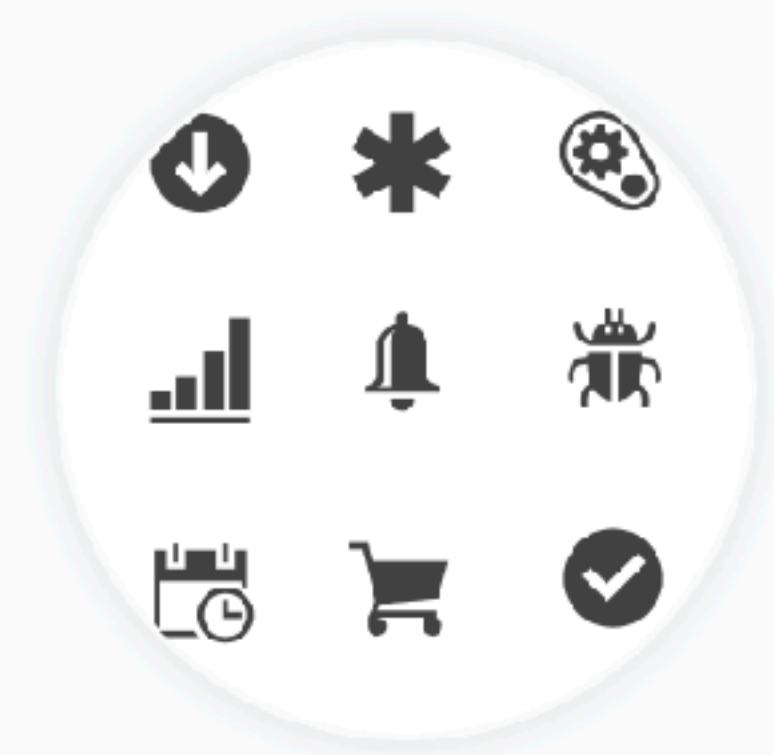
A responsive layout for forms.



## GRID

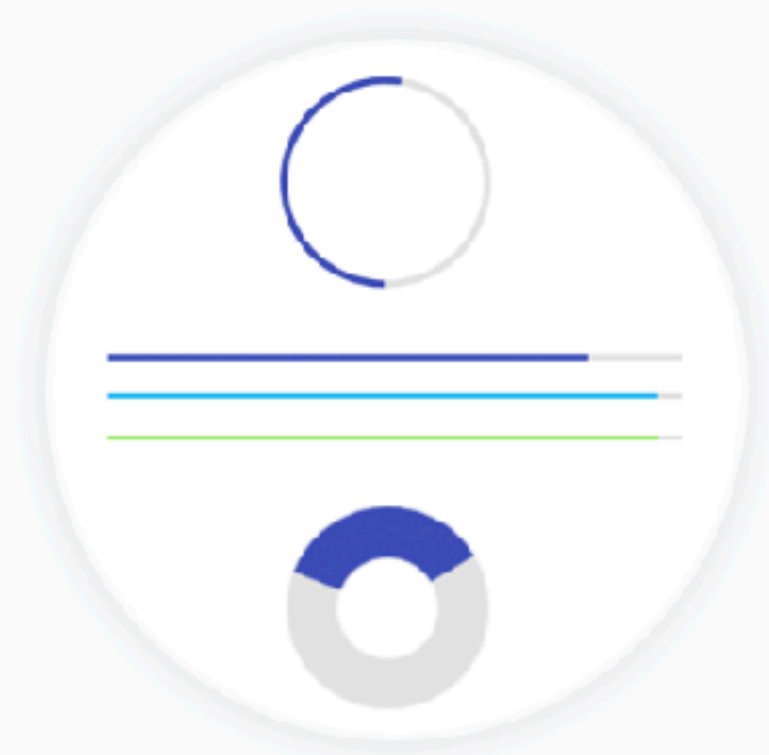
Fully featured data grid for showing tabular data.





### UI ICON SET

530 unique icons designed for web applications.



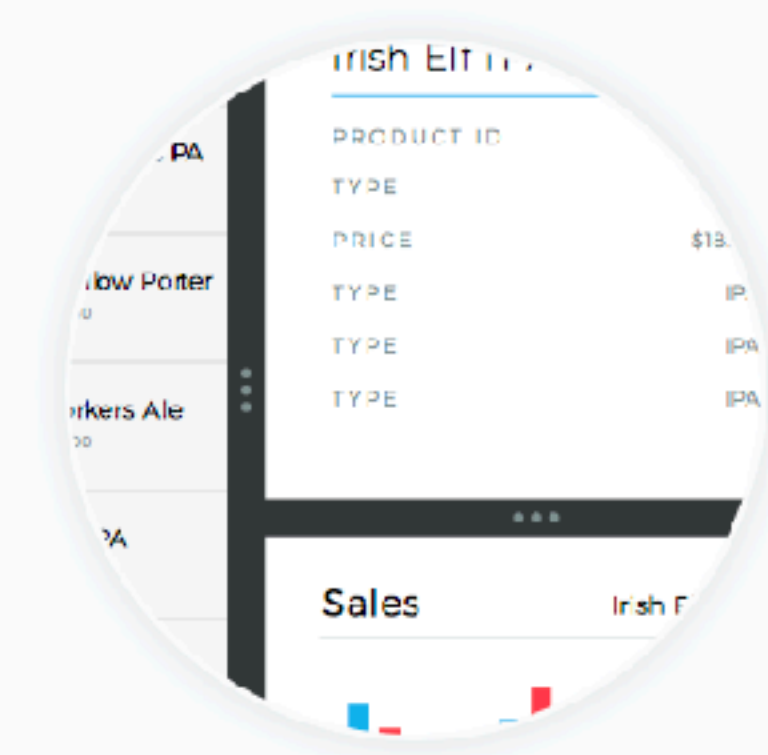
### PROGRESS BAR

Show off your progress!



### RADIO BUTTON

Sometimes you can't have them all.



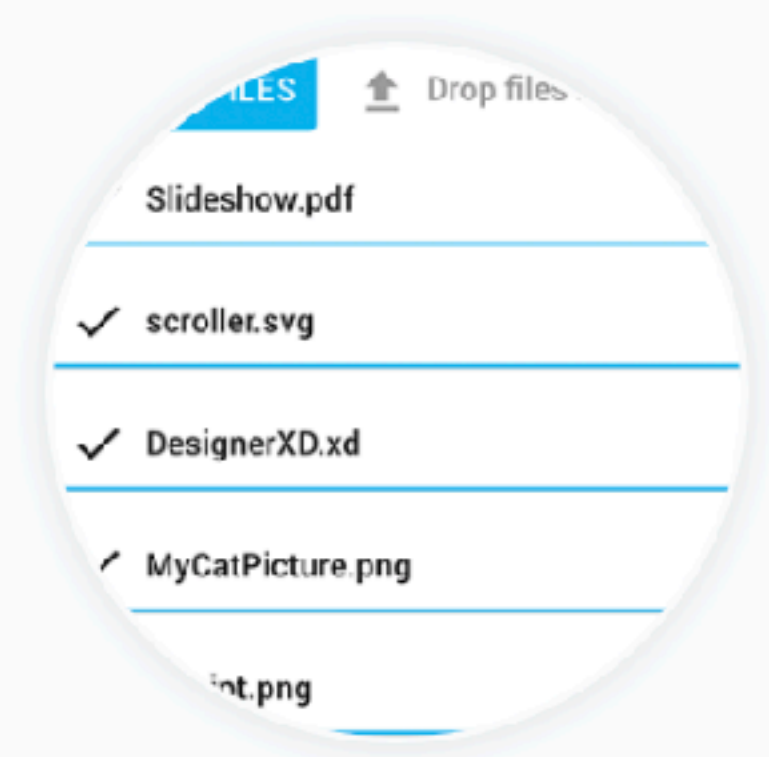
### SPLIT LAYOUT

Partition your layout into resizable areas.



### TEXT FIELD

Customizable text input field.



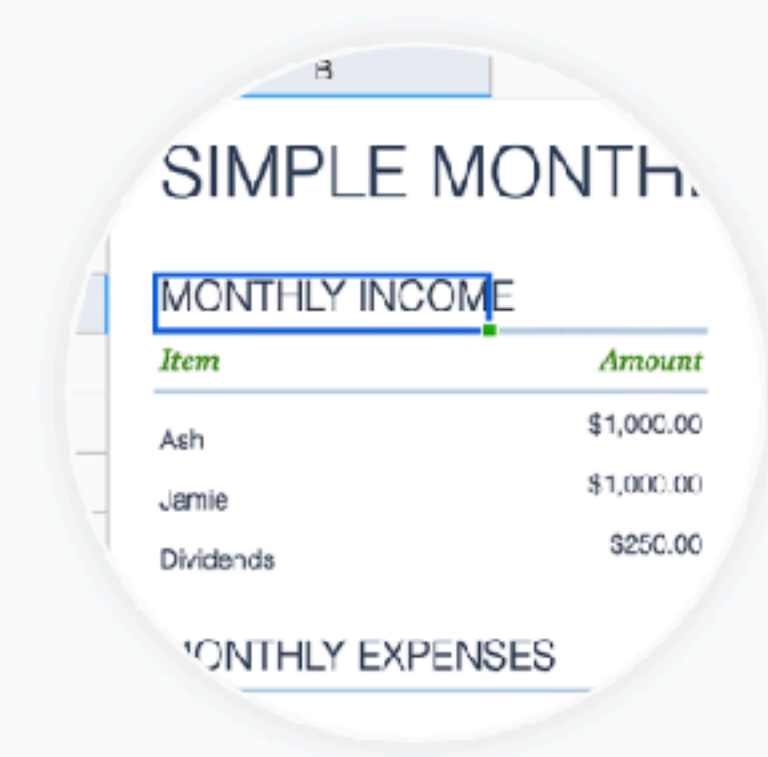
### UPLOAD

Upload multiple files with progress indication.



### BOARD

Polymer element to create flexible responsive layouts and build nice looking dashboards



### SPREADSHEET

One-line Java solution to integrate Microsoft Excel files in your web application





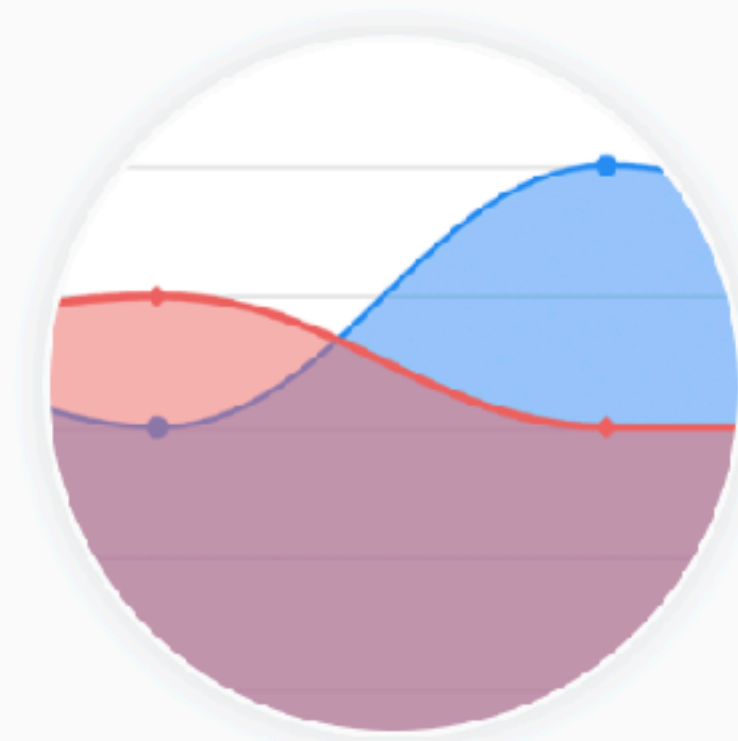
**AREA CHART**

Highlights the area between the axis and a curved line chart.



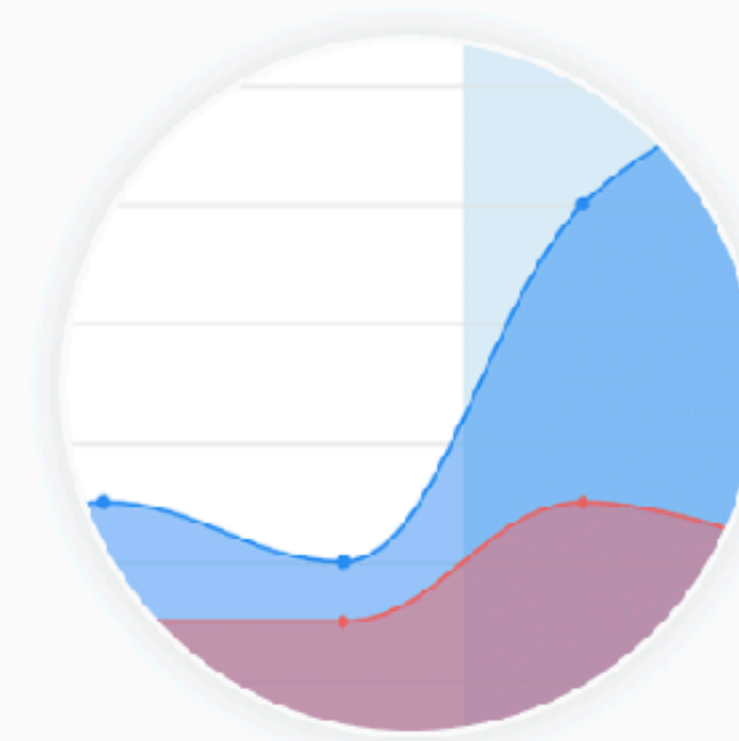
**AREA RANGE CHART**

An area range chart highlights the area between two line charts.



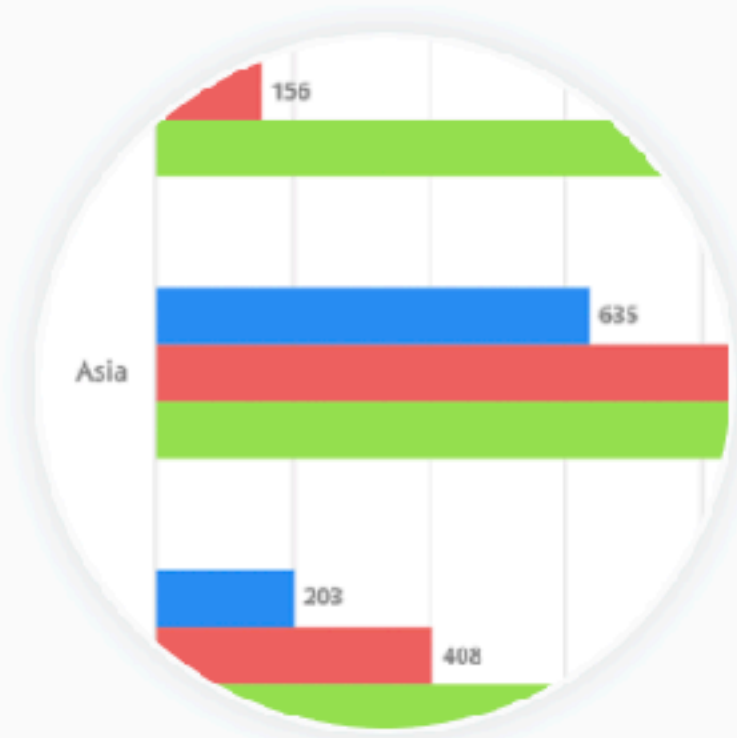
**AREA SPLINE CHART**

An area spline chart highlights the area between the axis and a curved line chart.



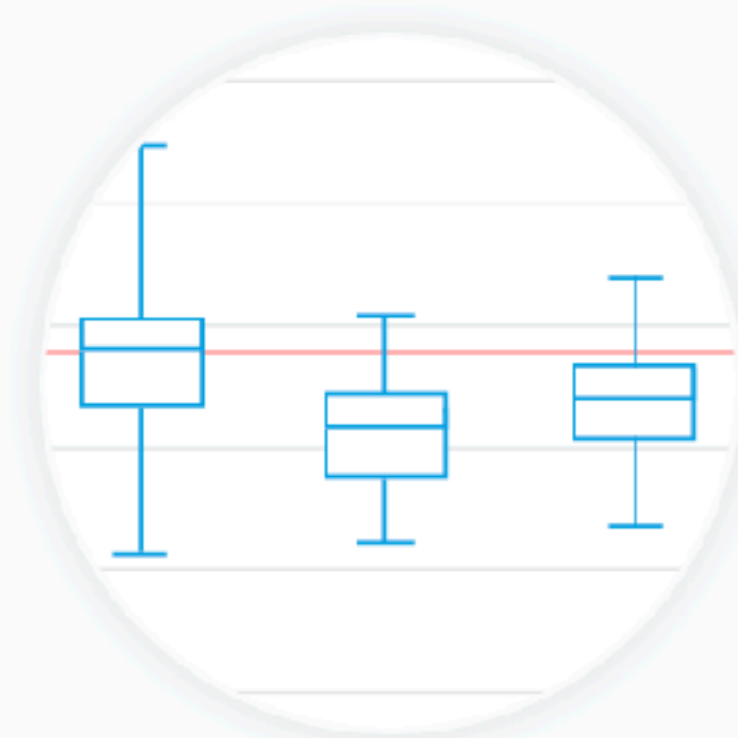
**AREA SPLINE RANGE CHART**

Highlights the area between two spline charts.



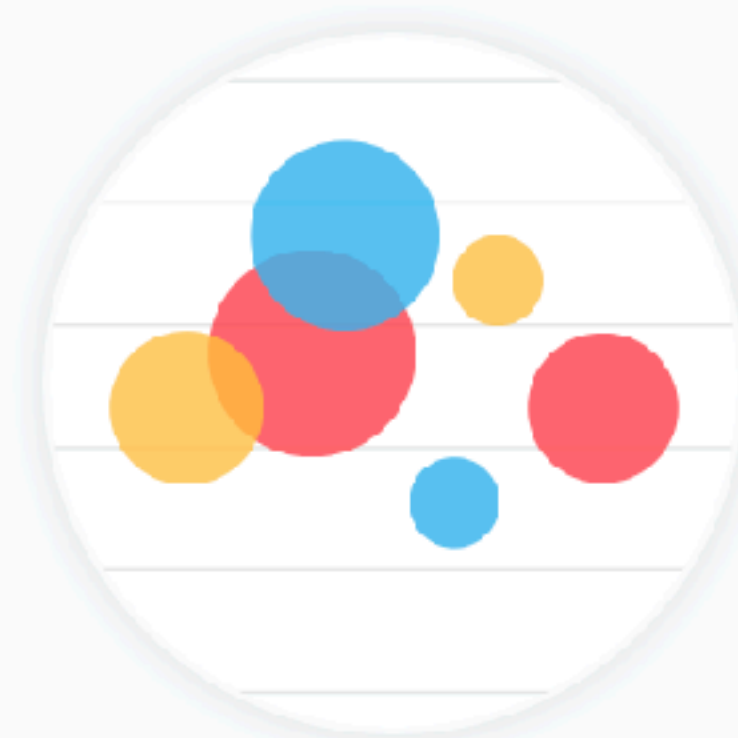
**BAR CHART**

Display data with horizontal bars proportional to values.



**BOX PLOT CHART**

Used to indicate variability outside upper and lower quartiles.



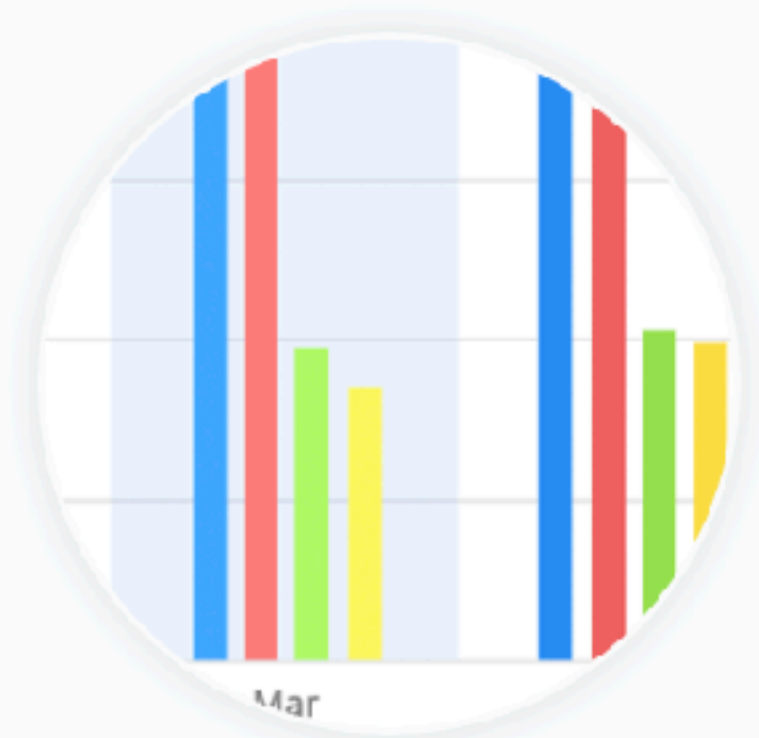
**BUBBLE CHART**

A bubble chart can be used to display three dimensions of data with disks proportional to a value at a given x, y point.



**CANDLESTICK CHART**

A candlestick chart is a financial chart that combines a line chart and a bar chart.



### COLUMN CHART

Display data with vertical bars proportional to values.



### COLUMN RANGE CHART

Displays two values per data point, highlighting the range between them.



### ERROR BAR CHART

Error bars can be used to indicate error or uncertainty in measurements.



### FLAG CHART

A flag chart allows you to flag points on the timeline and axis.



### FUNNEL CHART

Funnel charts are most often used to visualize the different stages in a company's sales process.



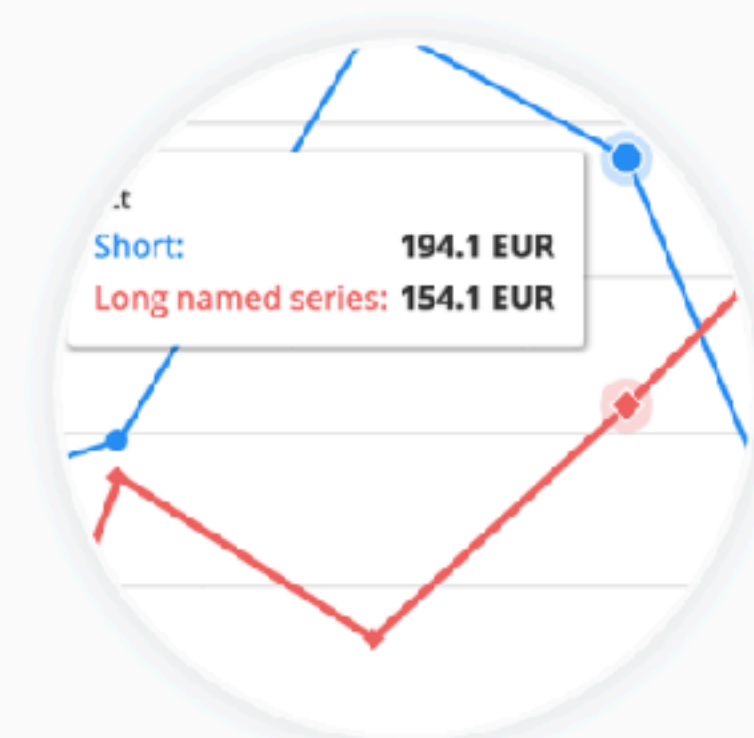
### GAUGE CHART

Displays a gauge where the angle corresponds to the value. Supports multiple axes.



### HEAT MAP CHART

Highlight areas in a matrix with a gradient to easily compare large amounts of data.



### LINE CHART

Displays a series of data connected with straight lines.



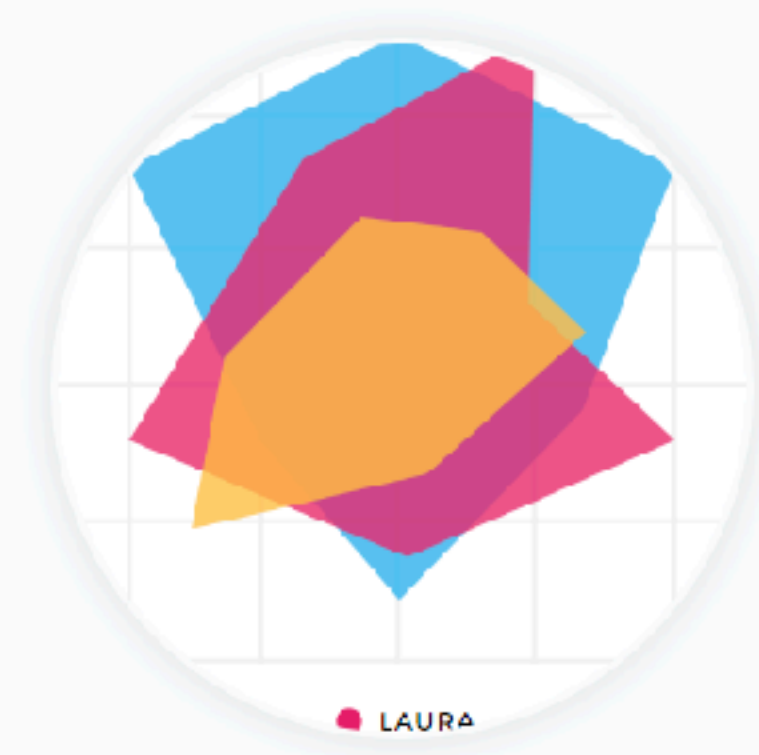
### OHLC CHART

An open-high-low-close (OHLC) chart is a financial chart that shows the open, close, high and low values for a financial instrument for that day.



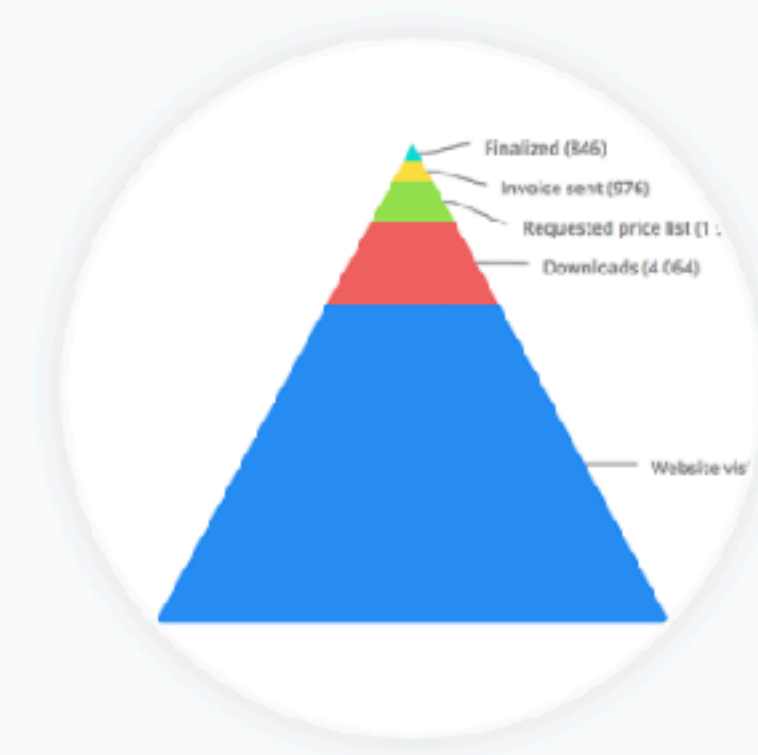
### PIE CHART

Display proportions of values clearly with a pie chart.



### POLYGON CHART

Highlights an area defined by data points making up a polygon.



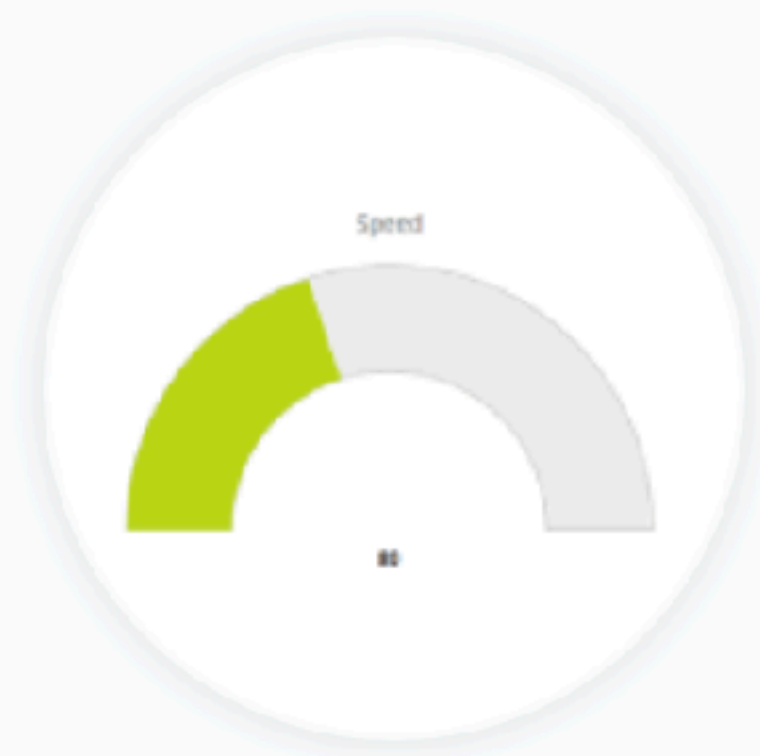
### PYRAMID CHART

Used to show hierarchically structured data in a pyramid shaped chart divided into vertical slices.



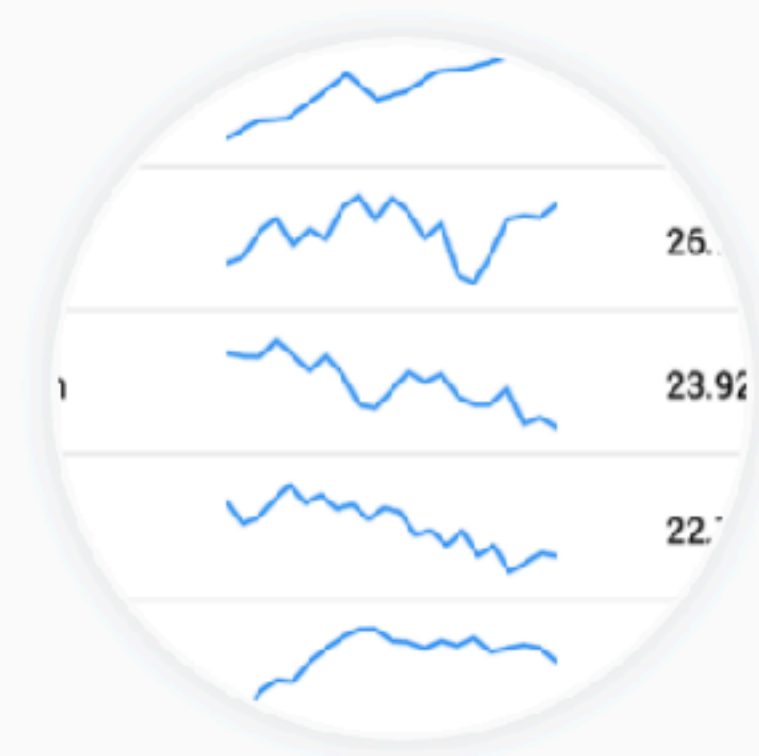
### SCATTER CHART

A scatter chart or scatter plot is a set of points from a two dimensional data set.



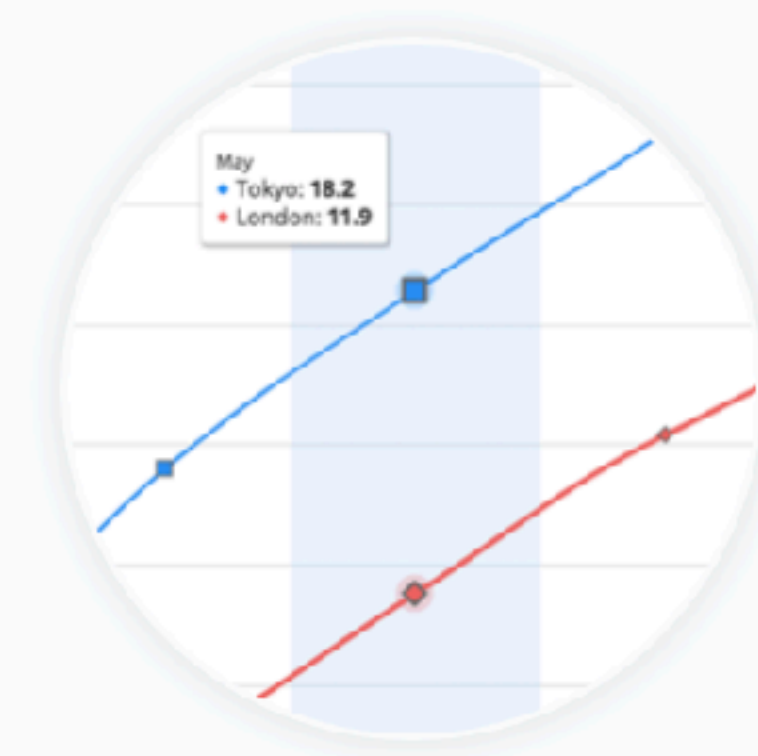
### SOLID GAUGE CHART

A solid gauge chart shows a value as a colored angle of an arc.



### SPARKLINE CHART

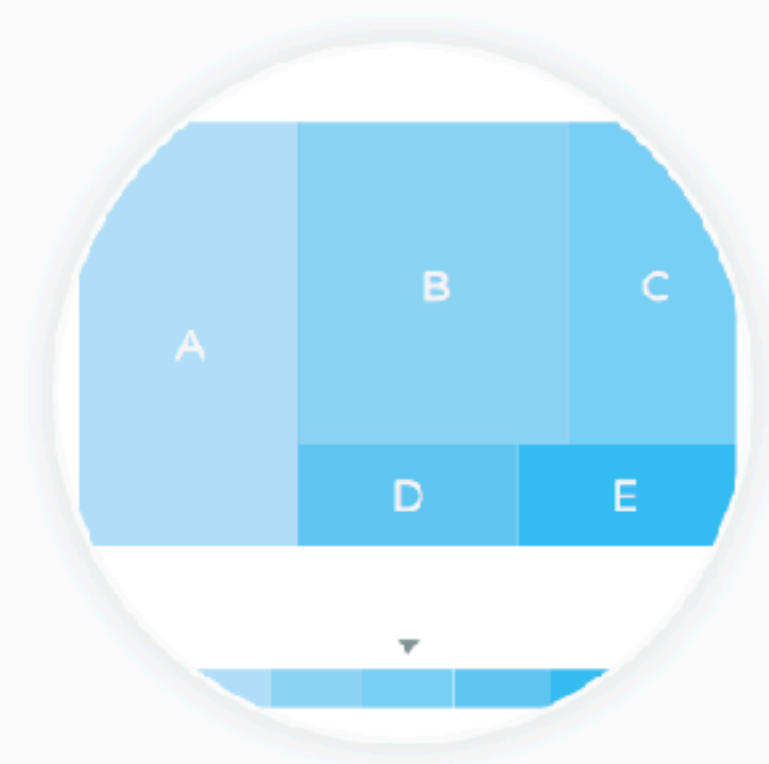
Sparklines are small line charts that are displayed without axes or coordinates and are typically used to show time



### SPLINE CHART

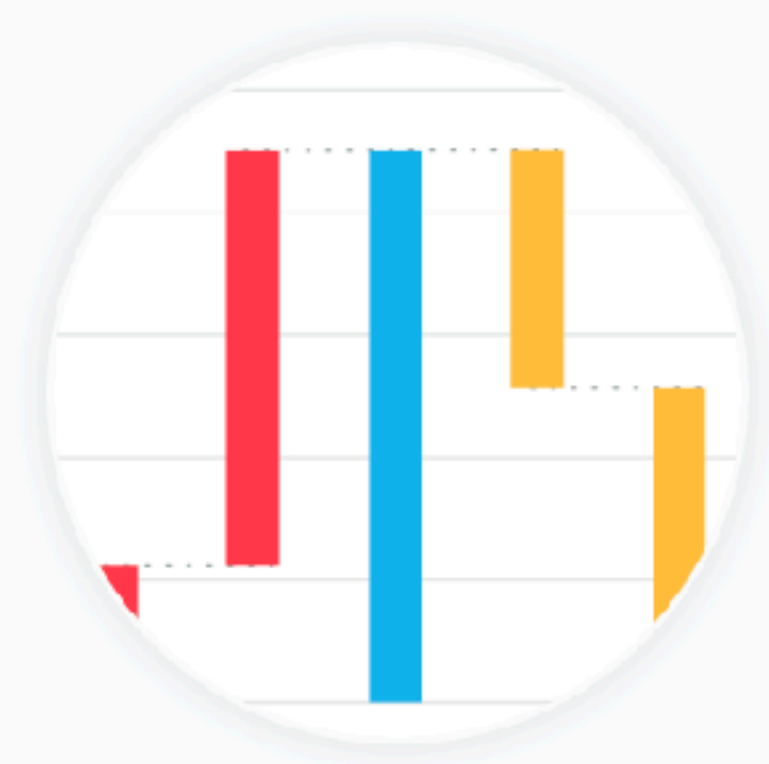
Displays a set of data points connected by a curved line.





**TREE MAP CHART**

Displays a set of hierarchical data in nested rectangles.



**WATERFALL CHART**

A waterfall chart shows the cumulative effects of a step of sequentially applied positive or negative values.

+

Tab & Tabs

Dropdown Menu

Notification

Text Area

Radio Button (Groups)

Progress Bar

[https://github.com/amahdy/  
wc-speaks](https://github.com/amahdy/wc-speaks)

# ONE MORE THING

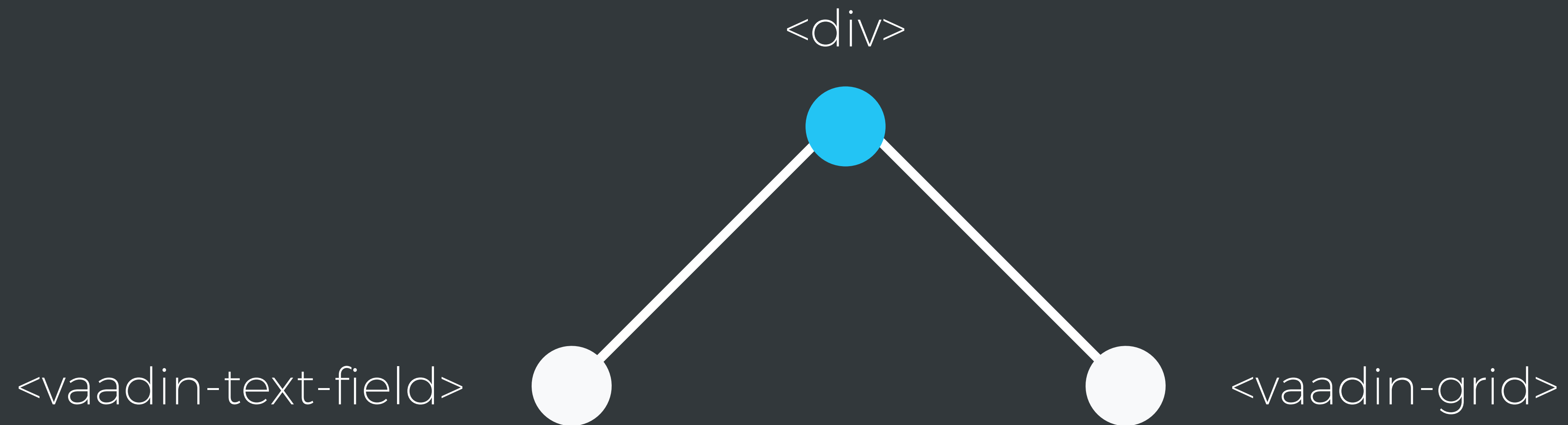
WEB COMPONENTS FROM SERVER-SIDE JAVA





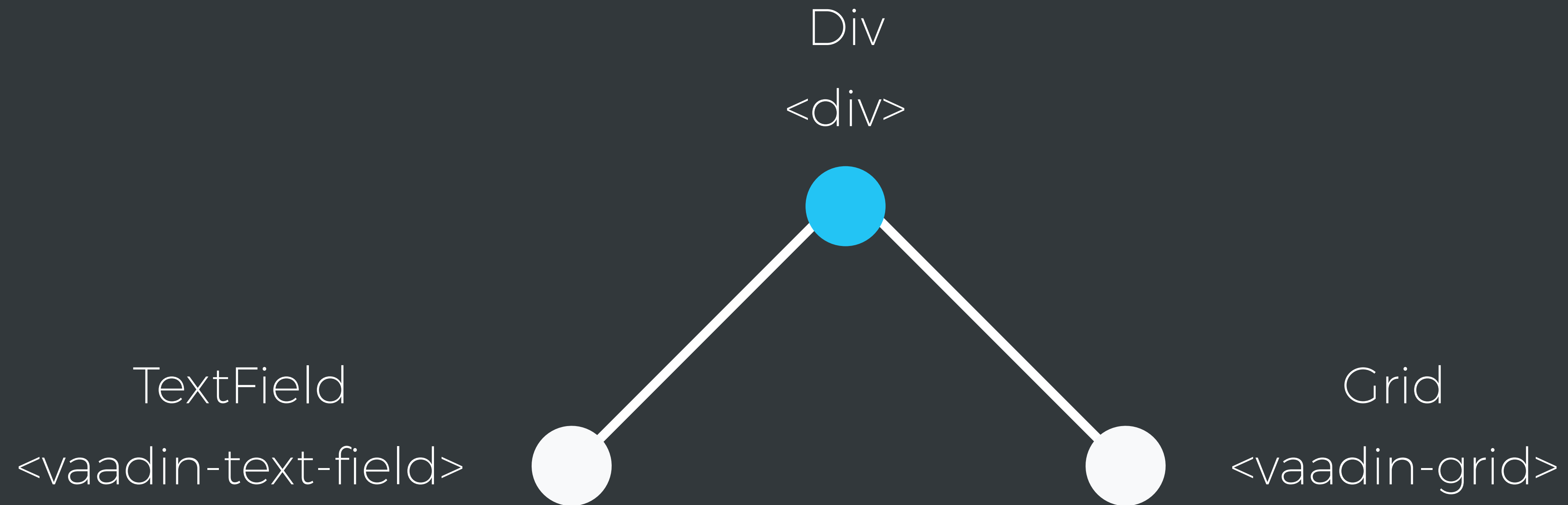
Java } > Web

# Web Components



# Java Components

## Web Components



```
Element button = new Element("button");  
button.setTextContent("Click me");  
button.addEventListener("click", e -> sayHello());
```

```
Element layout = new Element("div");  
layout.appendChild(button);
```

```
Button button = new Button("Click me");  
button.addClickListener(e -> sayHello());
```

```
VerticalLayout layout = new VerticalLayout();  
layout.add(button);
```





QUESTIONS





Thank you!