vaadin}>

Modern Web Development with Java: A practical Vaadin Flow Intro

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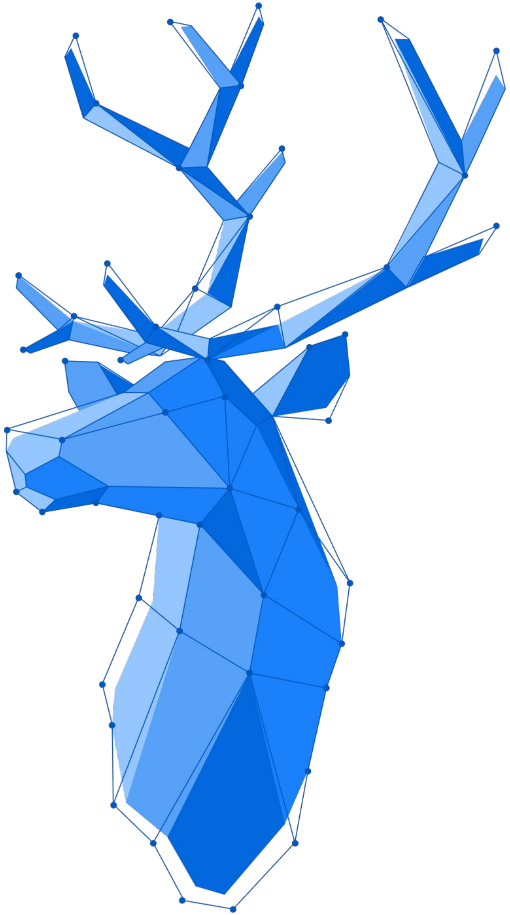
Solution Architect



What is Vaadin?

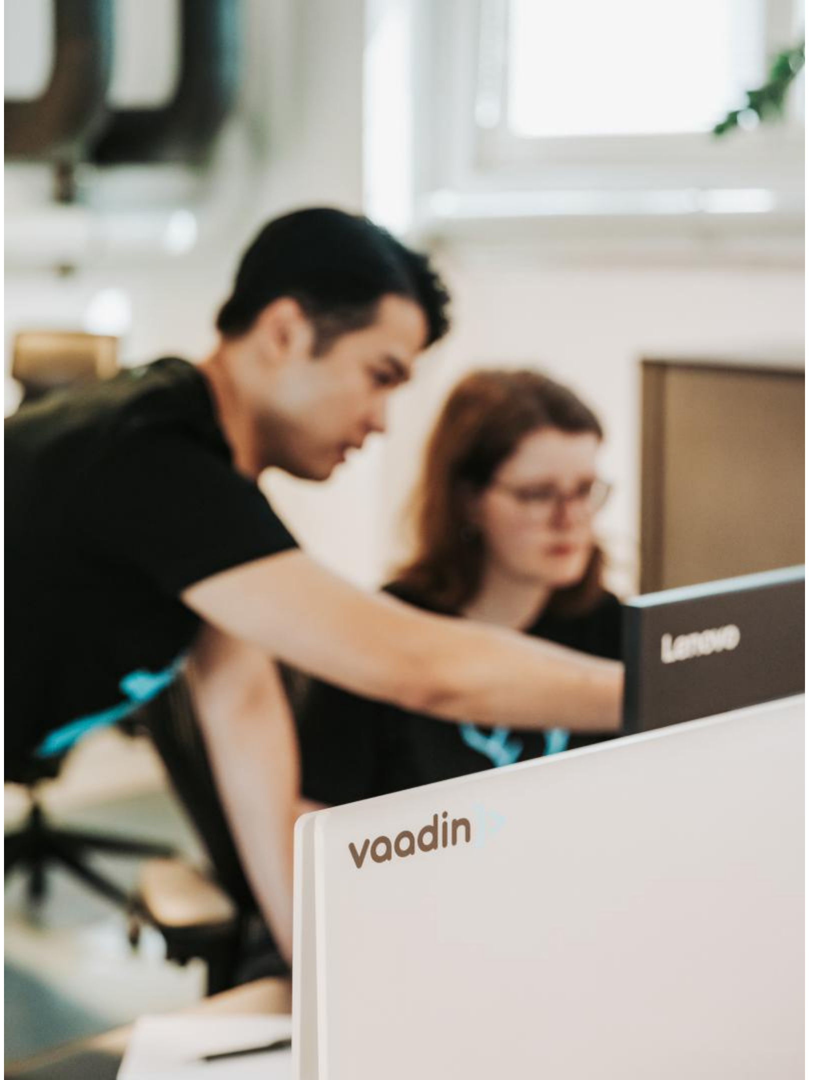
and what is it good for?

Vaadin

Finnish word meaning “female reindeer”

Vaadin

A company creating Open Source web development tools and components



ONE COMPANY

Two Frameworks

Flow

Hilla

Two Frameworks

A development model that fits you

	Flow	Hilla
Components	Vaadin UI Components	
Views	Java	TypeScript
Server-Side		Java

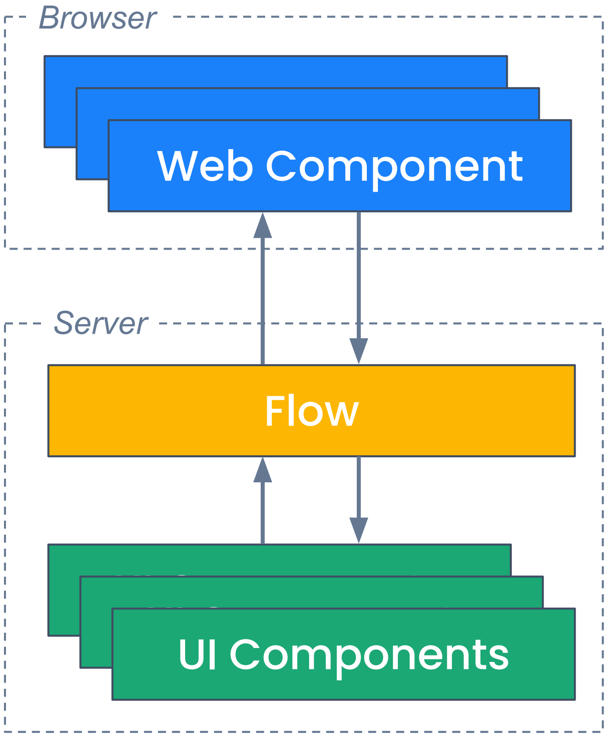
Simple Web Development with Java

What is Flow?

- Framework to build web applications fully in Java
- UI components and various tools
- Type safe data-binding between backend and UI
- Server side architecture
- Automatic state synchronisation between Server and Browser
- Secure communication between browser and client
- Simple integration in the Java Ecosystem
- easy to extend Flow and using third party addons

Vaadin from the bird's eye view

Architecture


Browser
Web Component
Server
Flow
UI Components

JAVA BACKEND & JAVA UI

Flow Framework

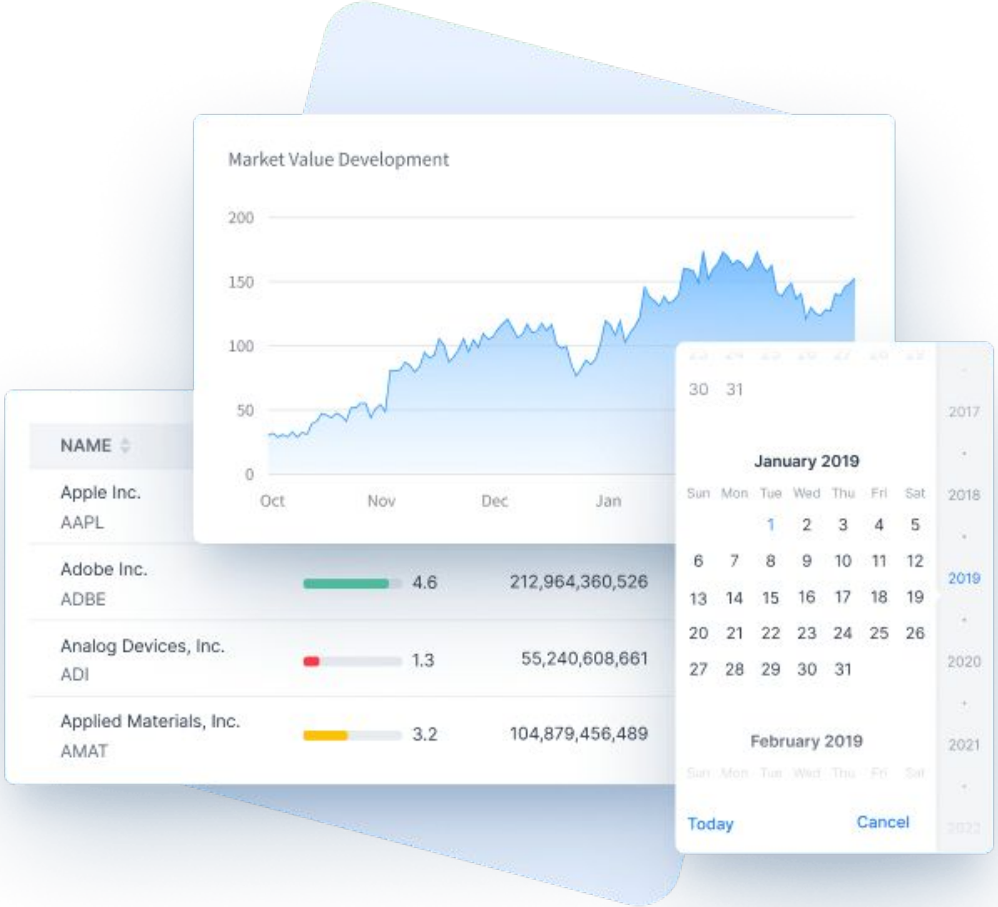
```
@Route(value = "")
public class HelloWorldView extends HorizontalLayout {

   public HelloWorldView() {
       var name = new TextField("Your name");
       var sayHello = new Button("Say hello",
               e -> Notification.show("Hello " + name.getValue()));

       add(name, sayHello);
       setMargin(true);
   }
}
```

Components

- 50+ Built-in components
- Common Architecture
- Web components
- Framework agnostic
- Accessibility



NAME		
Apple Inc. AAPL		
Adobe Inc. ADBE	4.6	212,964,360,526
Analog Devices, Inc. ADI	1.3	55,240,608,661
Applied Materials, Inc. AMAT	3.2	104,879,456,489

Market Value Development
200
150
100
50
0
Oct
Nov
Dec
Jan
30 31
January 2019
Sun Mon Tue Wed Thu Fri Sat
1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31
February 2019
Sun Mon Tue Wed Thu Fri Sat
Today
Cancel
2017
2018
2019
2020
2021

Community

- Focus in good Developer Experience
- Open source community with +200k members
- Support via vaadin.com/forum, GitHub, StackOverflow and Discord
- Meetups and other Events or even more

SUBTITLE

How to start with Flow?

- start.vaadin.com to create your own Vaadin Project
- **Starter** project on github.com/vaadin
    - Spring, CDI, Gradle, Quarkus
- Maven Archetypes

```
mvn -B archetype:generate \
 -DarchetypeGroupId=com.vaadin \
 -DarchetypeArtifactId=vaadin-archetype-application \
 -DarchetypeVersion=LATEST \
 -DgroupId=org.example \
 -DartifactId=my-webapp \
 -Dversion=1.0-SNAPSHOT
```

- vaadin.com/start

Project structure

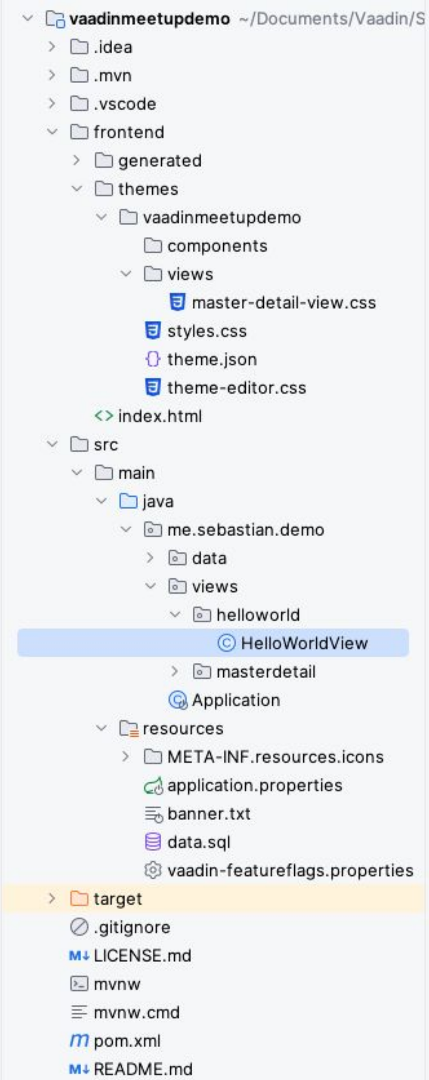
src/main/java for Java sources

pom.xml Maven project configuration

frontend for client side resources, e.g. js, HTML, CSS files

No node _modules, package.json, package-lock.json for npm *(only after installing individual web components)*

No vite.config.ts auto generated file for Vite, frontend build tooling



```
vaadinmeetupdemo ~/Documents/Vaadin/S
  .idea
  .mvn
  .vscode
  frontend
    generated
    themes
      vaadinmeetupdemo
        components
        views
          master-detail-view.css
        styles.css
        theme.json
        theme-editor.css
    index.html
  src
    main
      java
        me.sebastian.demo
          data
          views
            helloworld
              HelloWorldView
            masterdetail
          Application
      resources
        META-INF.resources.icons
        application.properties
        banner.txt
        data.sql
        vaadin-featureflags.properties
  target
  .gitignore
  LICENSE.md
  mvnw
  mvnw.cmd
  pom.xml
  README.md
```

Let’s code

Hello World ...

Let’s code

Hello World ...

16:45
Mittwoch, 20. Februar
G710+

Vaadin 24

Supported Technologies

- Java 17, Maven 3.5, Gradle 7.3
- Node 18
- Spring Boot 3.0
- Evergreen Browsers + Safari 15
- TC 10.1, Jetty 12, Payara 6, WF 27, JBoss 8.0
- Unsupported Karaf & OSGi

Tools

TestBench

Designer

Multiplatform Runtime

Collaboration Kit

Design System Publisher

Observability Kit

Azure Cloud Kit

SSO Kit

Modernization Tool Kit

WE'D LIKE TO TALK

Contact us

Website

https://vaadin.com

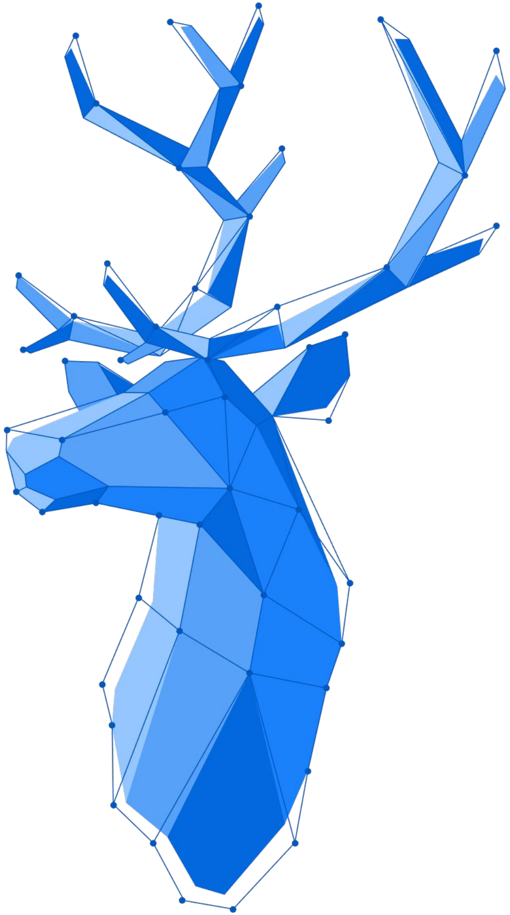
Email

seb@vaadin.com

Twitter/X

@vaadin
@seb_vaadin

Onsite

Vaadin ℅ Scaling Spaces
Kopernikusstr. 35 in Berlin 10245