



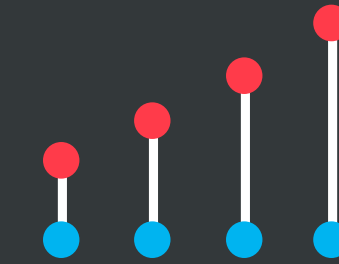
# Custom Training

PRESENTER

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# VAADIN TRAINING

EXPERT LED WORKSHOPS TO HELP  
YOU BUILD BETTER WEB APPS

# What is included?

THE TRAINING IS ARRANGED LIVE  
AT A LOCATION OF YOUR CHOOSING

- Live expert-led training from the developers that built the framework
- All courses contain theory slides, coding exercises and material handouts
- Pick and choose any modules from our course pool



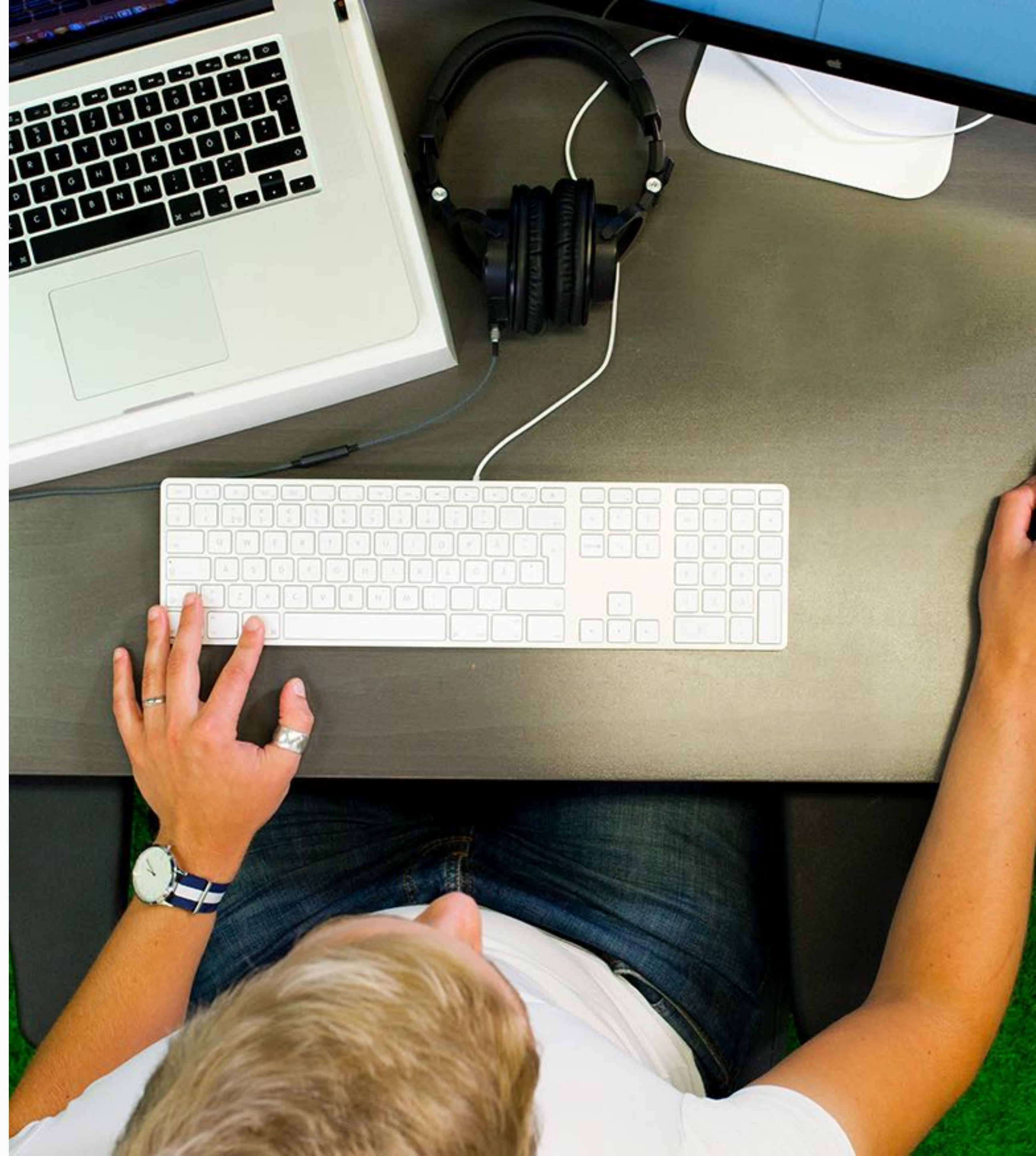
# VALUE OFFER

WHAT DO YOU GET?

## VALUE OFFER

# Developers

- Learn directly from the creators of Vaadin about the latest releases
- Learn to integrate Vaadin with existing technology stacks
- Increased productivity
- Recurring training, flexible participation
- Average participant satisfaction 9.5 / 10





## VALUE OFFER

# Companies

- Higher product quality
- Faster time to market
- Lower risk of failing the project
- Less cost by less things to fix afterwards
- Happier end-users
- Happier employees

# PREREQUISITES

WHAT DO YOU NEED TO KNOW?

# Prerequisites – Frameworks



## VAADIN COURSES

Skills in Java  
development



## POLYMER COURSES

Skills in HTML and  
JavaScript development

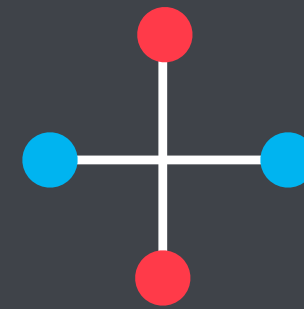


# Prerequisites – Skill level



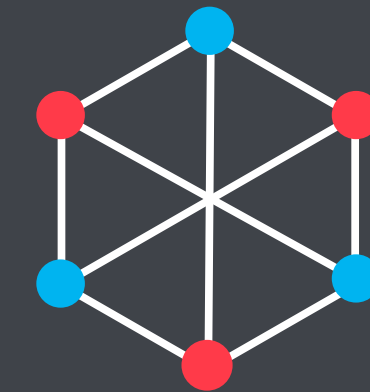
## BEGINNER

Basic knowledge of the framework is a plus but not needed



## INTERMEDIATE

Basic knowledge of the framework is highly recommended



## ADVANCED

Knowledge of the framework is required

# VAADIN COURSES

FOR VAADIN LEARNERS

# VAADIN FUNDAMENTALS

BECOME MORE PRODUCTIVE BY LEARNING THE BASICS OF VAADIN

## VAADIN FUNDAMENTALS

# Hello Vaadin!

Create your very first Vaadin app, and learn about Vaadin Components.

- Basic Vaadin application architecture
- Value terminology
- What Vaadin components are and how to use them
- How to deploy a Vaadin application

BEGINNER ⌚ 4 HOURS

# Data Binding with Containers

How to work with the DataProvider API and related Components like Grid and Combobox, including sorting and filtering. How to migrate your applications from Vaadin 7 to Vaadin 8

- The new and improved data fetch API in Vaadin 8
- How to create listing views with filters
- How to optimally use Grid

BEGINNER ⌚ 4 HOURS

# Data Binding and Validation

How the Vaadin data model works and how to create forms.

- How to create simple and complex forms
- Value conversion and validation
- Vaadin Field component API
- Tips for good UX in forms

BEGINNER  4 HOURS

# Layouting basics

How to structure your application with Vaadin layouts.

- What Layouts Vaadin provides and their differences
- Specific features of each Layout
- How to structure an application

BEGINNER  4 HOURS

# Theming your application with Valo

How to improve the look and feel of your app using the Valo theme with Java and SASS.

- How to theme a Vaadin Application
- Basics of CSS and SASS
- Extending built-in themes
- Building Custom Themes

INTERMEDIATE  4 HOURS



# ADVANCED TOPICS

LEARN HOW TO CODE VAADIN APPLICATIONS THE SMART WAY

## ADVANCED TOPICS

# Application Lifecycle

How does Vaadin manage application creation and cleanup?

- How sessions are created and disposed of
- How user sessions are separated
- How to manage resource cleanup
- How to share resources between sessions

ADVANCED  2 HOURS

## ADVANCED TOPICS

# Drag and Drop

How to use Drag and Drop in your Vaadin applications.

- How to use drag and drop with Vaadin Layouts and Components
- How to enable HTML5 drop in Vaadin

ADVANCED  2 HOURS

## ADVANCED TOPICS

# Embedding Vaadin

How to embed Vaadin into existing applications and how to communicate with other applications.

- Different ways of integrating Vaadin applications with other UI technologies
- How to share data between Vaadin and other UI technologies

ADVANCED  2 HOURS

## ADVANCED TOPICS

# Organizing UI code

How to use Patterns to organize your code, and what Patterns work well with Vaadin.

- Using patterns with UI code
- Main Layout Concept
- How to use the Navigator
- Best practices for code structure in Vaadin applications

INTERMEDIATE

🕒 3 HOURS

## ADVANCED TOPICS

# Responsive Layouting

How to use Responsive layouting techniques with Vaadin and how to build your application to support Responsive Design Using patterns with UI code

- Responsive design basics
- How Vaadin supports Responsive Design
- How to create responsive CSS for Vaadin applications

ADVANCED  2 HOURS

## ADVANCED TOPICS

# UI Optimization

What affects performance in Vaadin Applications and what to do about it?

- What affects performance when using Vaadin
- How to identify performance bottlenecks in your application
- How to fix the most common issues with performance

INTERMEDIATE  2 HOURS

## ADVANCED TOPICS

# Vaadin Push

How Push works in Vaadin, and when to use it.

- What server push is and why it is useful
- When and how to use push with Vaadin
- Avoiding common mistakes

INTERMEDIATE  2 HOURS



# VAADIN 10

GET TO KNOW EVERYTHING ABOUT OUR NEW FRAMEWORK

VAADIN 10

# Introduction

Take your very first steps into building apps using Vaadin with hands on help from our expert instructor. You will learn about components, layouts and how to combine these to build beautiful and highly usable UIs. We also get you up to speed on terminology used throughout the courses. After attending this course you will be able to bend the layouts according to your needs.

- Basic Vaadin application architecture
- Vaadin terminology
- What Vaadin components are and how to add them to layouts
- How to deploy a Vaadin application

BEGINNER  2 HOURS

VAADIN 10

# Layouting

How to structure your application with Vaadin layouts and make effective use out of the powerful layouts that Vaadin provides. Our instructor shows how to combine layouts in ways that allows you to build even complex user interfaces.

- The Layouts that Vaadin provides and their differences
- Specific features of each Layout
- Advanced features such as expand ratio and how to make use of these to achieve desired results
- How to structure an application

BEGINNER  2 HOURS

VAADIN 10

# Router API

Learn how to work with routing and navigation in Vaadin 10. Our instructor will show you the optimal ways of using the built-in Router API to create modular and robust applications.

- What navigation targets are and how to navigate between them
- The different ways of building your application routing
- How to build your application with modularity in mind

BEGINNER  2 HOURS

VAADIN 10

# Forms and Databinding

Learn how to bind data to components in order to be able to build simple and complex create-use-update-delete (CRUD) views. You'll learn how the Vaadin data model works and how to create forms with good user experience, ensuring that your users will love working in your application.

- How to create simple and complex forms
- Value conversion and validation
- Vaadin Field component API
- Tips for good UX in forms

BEGINNER  3 HOURS

VAADIN 10

# Data lists with Grid

Learn how to work with the DataProvider API to fetch data from anywhere, e.g. over REST or from a database. Our expert instructor will show how to display this data in components such as Grid and Combobox, and how to enable sorting and filtering in the UI.

- How to create listing views with filters
- How to optimally use Grid and other Select components
- New API for Grid, Combobox and others

BEGINNER  4 HOURS

VAADIN 10

# Elements API

What are Vaadin components made of? Learn about the all-new elements API and the powerful tools that Vaadin Flow gives you to manipulate the DOM from the server side, giving you full control of what is rendered in the browser.

- How to access the DOM from a robust server-side API
- Binding client side events to server side listeners
- How to build fully custom layouts for your application

INTERMEDIATE  2 HOURS

VAADIN 10

# Using templates

The all-new template engine in Vaadin allows you to create powerful declarative UIs with full support for events and data binding. Our instructor will show you how to best leverage them in your Vaadin applications. After this course you will be able to take ready made, pixel perfect HTML and CSS mockups and make them into dynamic applications.

- Creating HTML templates for your Vaadin application
- How to bind data to your templates, for both read and write operations
- Calling event listeners from JavaScript DOM events
- Using Vaadin components inside your templates

INTERMEDIATE



2 HOURS



VAADIN 10

# Framework architecture

Learn what makes Vaadin tick, under the hood. Our expert instructor will teach you about the lifecycle of Vaadin Framework applications, how they are created and how to clean up after they are closed. We will also look at what a Vaadin session consists of and how you could share resources between different users.

- How sessions are created and disposed of
- How user sessions are separated
- How to share resources between sessions
- How to customize the bootstrapping sequence

ADVANCED  2 HOURS

VAADIN 10

# Best practices with Bakery

The Bakery App Starter is a full stack Vaadin example showing all the best practices. With the guidance of our expert instructor, we go through all aspects of it to show the best practices when developing Vaadin applications, from data layer and services to the UI and integration tests.

- Best practices for developing your UI using Vaadin layouts and templates
- How to bind your UI to data using Spring
- How to create regression tests using Vaadin TestBench
- How to use Spring Security for login and view access control

INTERMEDIATE



4 HOURS

VAADIN 10

# Creating custom elements

Learn how to create custom client side components and how to use them in your Vaadin application. In this course you will create a web component from scratch using Polymer, and bind it to a Vaadin server-side application.

- The basics of Web Components and Polymer
- How to create a simple Web Component
- Using 3rd party Web Components from the Vaadin server-side

ADVANCED



4 HOURS

# VAADIN CLIENT SIDE

CREATE YOUR OWN COMPONENTS WITH DEEP DIVES INTO THE  
VAADIN CLIENT SIDE

# Client side: Communication

How does Vaadin communicate with the client side engine, and how you can customize it for your own components.

- The different ways Vaadin communicates between the server and the client
- How to create dynamic and complex client side

ADVANCED  2 HOURS

VAADIN CLIENT SIDE

# Client side: Widgets and connectors

How to create your own custom client side components with Widgets and Connectors.

- How individual Vaadin components are created on the client side
- How to create a custom Vaadin client side widget
- What Connectors and Widgets are

ADVANCED  3 HOURS

# Component Extensions

How to use the Extension API to modify the behaviour of Components on both the server and client side.

- The difference between Components and Extensions
- How to create your own full-fledged Extension
- How to use and extend the built-in

ADVANCED  2 HOURS

# Introduction to the Vaadin Client Side

How Vaadin manages its client (browser) side; what are GWT and widgetset, and why do you need to know?

- How Vaadin manages server to client communication
- How Vaadin actually renders things in the browser
- What is GWT and why you

INTERMEDIATE  1 HOURS



VAADIN CLIENT SIDE

# Introduction to the Vaadin Client Side

How to use 3rd party JavaScript components in your Vaadin application.

- Using Javascript components in Vaadin
- How to use JavaScript Libraries when creating custom components

ADVANCED  2 HOURS

# VAADIN DEVDAY TOPICS

VARIOUS TOPICS PICKED FROM VAADIN DEV DAYS

# INTEGRATIONS

LEARN HOW VAADIN WORKS WITH OTHER FRAMEWORKS, SUCH AS  
SPRING AND JAVA EE

## INTEGRATIONS

# Java EE: Vaadin & CDI

Learn what CDI (Context and Dependency Injection) is and how to use it With Vaadin. Our expert instructor will help you create your first Vaadin and CDI app and teach you the fundamentals of the Vaadin CDI addon. You will also learn how to organize a bigger application using Injection best practices.

- How to use Vaadin with CDI
- How to use CDI in Vaadin application architecture design
- CDI Scopes and the custom Vaadin scopes

INTERMEDIATE



4 HOURS

## INTEGRATIONS

# Vaadin & Spring 1: Getting started with Vaadin Spring, My first Vaadin Spring app

How to integrate Spring dependency injection with Navigator, using scopes, and autoconfiguring beans. The trainees will build a Vaadin Spring application from the ground up to learn what Spring is and how it is connected to Vaadin development.

- How to use Spring with Vaadin
- Spring basics
- Dependency Injection and Scopes
- Bean Configuration
- Using the Vaadin Spring Navigator

INTERMEDIATE



4 HOURS

## INTEGRATIONS

# Vaadin & Spring 2: Best Practices and Spring Boot

Learn the best practices for building a Spring application with a Vaadin UI. Hands-on exercises teach the trainees how to use autoconfiguration, the event bus, and spring boot to create real Vaadin Spring applications.

- How to use Spring Inversion of Control to design Vaadin Applications
- How to use Spring Boot with Vaadin
- Using the Spring Event Bus

ADVANCED



4 HOURS

# MIGRATION

STEP-BY-STEP GUIDES AND EXERCISES FOR  
MIGRATING VAADIN 7 APPLICATIONS

MIGRATION

# Crash course on Vaadin 7 to 8 migration

Get a jump start on migrating your apps to Vaadin Framework 8

- How to migrate your applications from Vaadin 7 to Vaadin 8
- Whats new in Vaadin 8
- The new Data model
- How to use the legacy packages for migration
- You will migrate example applications to Vaadin 8, step-by-step together with the instructor

ADVANCED



4 HOURS



# WEB COMPONENTS

LEARN ABOUT OUR VAADIN ELEMENTS, HOW TO CREATE  
PROGRESSIVE WEB APPS, AND MORE!

WEB COMPONENTS

# Intro to Polymer

What is Polymer and how to create Web Components.

- What is a Web Component?
- Web Component Tooling
- Browser support and Polyfills

BEGINNER  3 HOURS

## WEB COMPONENTS

# Polymer; my first application

How to create applications with Polymer.

- What you need to get a running Polymer application
- Toolchains for managing eb Component applications

BEGINNER  4 HOURS

## WEB COMPONENTS

# Progressive Web Applications

What are Progressive Web Applications, and how to create them.

- What are Progressive Web Applications (PWAs)
- How to create a PWA
- Polymer Imports
- Polymer Communication model

ADVANCED



4 HOURS

## WEB COMPONENTS

# Polymer; advanced topics

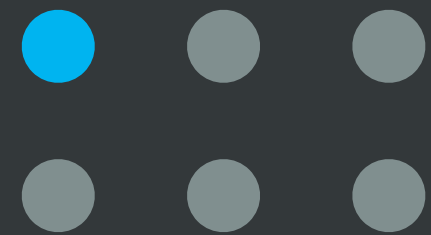
Advanced Polymer topics, such as offline databases, events, testing and more!

- Events
- Testing Polymer components
- PouchDB

ADVANCED  4 HOURS

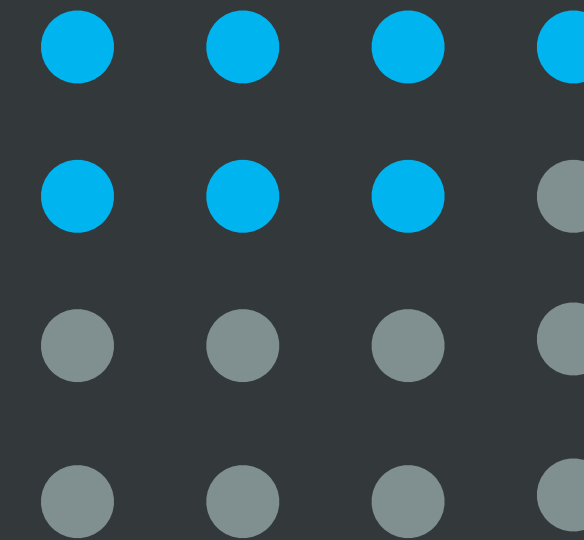
# PRICING

WHAT DOES IT COST?



FOR UP TO 6 PARTICIPANTS

5000 USD per day



800 USD PER DAY  
PER PARTICIPANT

For extra participants

THE CUSTOM TRAINING IS PRICED PER DAY. PRICES INCLUDE TRAVEL TO  
THE CUSTOMER SITE, LODGING AND SIMILAR EXPENSES.  
PRICES DO NOT INCLUDE TAX WHERE APPLICABLE.



Thank you!