SpiralTrain
developer courses

Polymer Web Development

Audience Polymer Web Development

The course **Polymer Web Development** is intended for Web Developers who want to use the newest version of the Polymer JavaScript Framework in developing elements for modern single-page Web Applications.

Prerequisites Course Polymer Web Development

A good knowledge of JavaScript and **JavaScript programming** experience and is required to participate in the Polymer Web Development course.

Realization Training Polymer Web Development

The theory is treated on the basis of presentations. The concepts are illustrated with demos. The theory is interspersed with exercises. The course times are from 9.30 to 16.30.
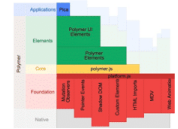
Certification Polymer Web Development

The participants receive an official certificate Polymer Web Development after successful completion of the course.
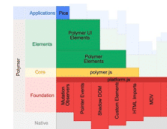
Duration: 3 days   **Price: € 1850**

Open Schedule

Polymer Element Development

Content Course Polymer Web Development

In the course Polymer Web Development participants learn to use the Polymer JavaScript Framework when developing modern single page Web Applications.

Web Components

Polymer is an open source JavaScript library for building web applications based on Web Components. Modern design principles are implemented in a separate Material Design project.

Polymer Fundamentals

Polymer is not a complete framework for building web applications such as Angular, but instead emphasizes reusable Web Components.

Polymer Core Library

While Angular has APIs for things like services, routing and server communication, Polymer offers these things as Web Components in the core library. These Web Components are not bound to Polymer but can be used like lego blocks in other web application frameworks.

Shadow en Shady DOM

The course starts with the installation of Polymer and with an intro about the fundamental concepts that play a role in Web Component specifications such as HTML Templates, HTMLImports, Shadow and Shady DOM.

Custom Elements

Subsequently the development of Custom Elements in Polymer, data binding and the implementation of life cycle callbacks are discussed. The various Material Design custom elements that Polymer makes available as standard are also addressed.

Styling

There is ample attention for reuse and styling with CSS where DOM manipulation, encapsulation of style and shims are discussed.

Event Handling

Finally event handling, Polymer tooling and application building are treated.

Modules Course Polymer Web Development

Module 1 : Polymer Intro	Module 2 : Polymer Elements	Module 3 : Properties and Databinding
What is Polymer?	Custom Elements	Element Properties
Web App Complexity	Creating and Extending	Property Key Value
What are Web Components?	Polymer Custom Elements	Property Types
Web Component Specifications	Importing HTML	Data Binding Objects
HTML Templates	Hello Polymer Revisited	Native Element Binding
Activating Templates	Including Hello Element	Attribute Binding
HTMLImports	Local DOM	Computed Properties
Shadow and Shady DOM	Element Sections	Observers
Downloading Polymer	Class Style Constructor	Observer Array Mutations
Polymer Framework Files	Type Extension Element	Conditional Templates
Installing Polymer	Lifecycle Callbacks	Template Repeater and Array Selector
Polymer Directories	Attaching and Detaching	Autobinding Template
Module 4 : Polymer Element Catalog	**Module 5 : Reuse and Styling**	**Module 6 : Events and Behavior**
Material Design	Local DOM	Polymer Events
Iron Elements	Insertion Points	Event Listeners
Iron-Ajax-Element	Encapsulation and Scope	on-event Annotations
Paper Elements	Shadow and hady DOM	Add and Remove Listeners
Paper Input Element	Light DOM	Listener on Custom Element
Google Web Components	Accessing the DOM	Listen on Child Elements
Gold Elements	Polymer DOM API	Listener on Outside Elements
Gold cc input element	Observe Node Changes	Custom Events
Neon Elements	In and Outside CSS Styling	Gesture Events
Platinum Elements	CSS Variables and Mixins	Gesture Event Types
Platinum Service Worker	Custom Property API	Event Retargeting
App Elements	Shim Limitations	Property Changed Events
Routing with App-Route	Custom and Shared Styles	Behaviors
Module 7 : Polymer Tooling	**Module 8 : Building Applications**	
Tools Overview	App Templates	
Polymer CLI	app-layout Elements	
CLI Commands	Build for Production	
Polyfills	polymer-build	
ES6 Modules	Build Configuration	
Create Element Project	HTTP/2 Push	
Create Application Project	Pre Cache	
Element Documentation	Lazy Load	
Testing Elements	Multiple Builds	
polymer.json Specification	Server Apps	
Node Support	PRPL Pattern	
Using NPM	Service Workers	