



Polymer Best Practices Boot Camp 2017

2-day Public Seminar and Workshop

Agenda

Day 1: The Foundation

8:30am – 9:00am	Welcome/Setup
9:00am – 9:30am	Session 1: Polymer First Steps – the basic building blocks – includes Instructor Demo
9:30am – 10:00am	Session 1 Lab (Exercise): Hello World – integrating a simple Polymer Component Part 1: Setup and configure Polymer project Part 2: Wire in a Polymer Component and test
10:00am – 10:25am	Session 2: Styling a Polymer Component How to use SASS, BEM and Preprocessors with Polymer for clean and maintainable CSS
10:25am – 10:45am	Session 2 Lab (Exercise): Style a Polymer Component Part 1: Setup SASS preprocessor Part 2: Apply styles to Polymer Component across Shadow DOM and test
10:45am – 11:00am	Break
11:00am – 11:15am	Session 3: Using Pug for reuse and clean, and maintainable HTML
11:15am – 11:45am	Session 3 Lab (Exercise): Create a Polymer Component with Pug Part 1: Setup template and fragment preprocessor Part 2: Create a Polymer component with Pug and test
11:45am	Lunch break
12:30pm – 12:50pm	Session 4: Standard Web Components, the foundation for Polymer – APIs and Use – includes Instructor Demo
12:50pm – 1:15pm	Session 4 Lab (Exercise): Creating a Standard Web Component Part 1: Implement a List module Part 2: Convert the List module into a Standard Web Component and test



1:15pm – 1:45pm	Session 5: Anatomy of a Polymer Component (Versions 1 and 2) – includes Instructor Demo
1:45pm – 2:30pm	Session 5 Lab (Exercise): Creating a Dashboard Component in Polymer Part 1: Implement a Dashboard KPI module Part 2: Convert the module to a Polymer Component and test
2:30pm – 2:45pm	Break
2:45pm – 3:15pm	Session 6: AppShell, Turbo and Caching for Performance
3:15pm – 4:00pm	Session 6 Lab (Exercise): Add a Polymer View Module using AppShell Part 1: Create View module and setup routing Part 2: Wire View module and test
4:00pm – 4:30pm	Session 7: Loading and packaging Polymer Components – includes loading/late-loading for performance
4:30pm – 5:00pm	Session 7 Lab (Exercise): Go-live: Deploy to Cloud and use a CDN Part 1: Deploy to Cloud Part 2: Connect to CDN
5:00pm	Day 1 End – for Day 2 see next page



Day 2: The Bricks and Mortar

9:00am – 9:15am	Review/Q&A
9:15am – 9:35am	Session 8: Creating loosely coupled Component Communication Using Streams and Functional Reactive Programming (FRP)
9:35am – 10:15am	Session 8 Lab (Exercise): Applying inter-component communication Part 1: Create an emitter Part 2: Create a consumer and test connection
10:15am – 10:30am	Break
10:30am – 11:00am	Session 9: Polymer Databinding, Part 1 Getting data from an API to a Polymer Component
11:00am – 11:45am	Session 9 Lab (Exercise): UI Reading from an API Part 1: Create a Polymer List Component Part 2: Wire the List Component to an API and test
11:45am	Lunch break
12:30pm – 1:00pm	Session 10: Polymer Databinding, Part 2 Writing data from a Polymer Component to an API
1:00pm – 1:30pm	Session 10 Lab (Exercise): UI Writing to an API Part 1: Create a Form Component to insert data Part 2: Wire the Form Component to a Write API and test
1:30pm – 1:55pm	Session 11: Using Log-in Security and Tokens with Polymer – includes Instructor Demo
1:55pm – 2:30pm	Session 12: SEO and Server-side Rendering (SSR) of Polymer Components – includes serverside Standard Web Components
2:30pm – 3:00pm	Session 12 Lab (Exercise): Creating a SSR Module Part 1: Configure Node.js for SSR Part 2: Create SSR Component and test
3:00pm – 3:15pm	Break



3:15pm – 4:00pm	Session 13: Using Accelerated Mobile Pages (AMP) with Polymer SSR – includes content reuse and Universal/Polymorphic Components
4:00pm – 4:30pm	Session 13 Lab (Exercise): Part 1: Adding an AMP version Part 2: Test
4:30pm – 4:45pm	Session 14: Polymer Mobile Apps with Phonegap/Cordova – includes Instructor Demo
4:45pm – 5:00pm	Summary/Review
5:00pm	Workshop End