Developing Progressive Web Applications

2-Day Instructor-Led Training

[Progressive Web Apps ILT - Codelabs](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/)

[Progressive Web Apps ILT - Concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/)

[PWA lab repository @ github](https://github.com/google-developer-training/pwa-training-labs)

[Parent folder](https://drive.google.com/open?id=0B5Kg0X0yIQ1PNzRsSGJfU3dkZGc) with all slides (including extras)

*Note: Timing and order is subject to change*

# Day 1

* Intro
* Why build Progressive Web Apps?
* New techniques for responsive design
* *Lab: Laying out a responsive app*
* Working with Responsive Images
* *Lab: Responsive images*
* Core technologies (fetch and promises intro)
* Introduction to Service Workers
* *Lab: Scripting the service worker*
* Offline Quickstart
* *Lab: Offline support for an existing content site*
* Auditing an existing site with Lighthouse
* *Lab: Lighthouse*
* Intro to PWA architectures

# Day 2

* Gulp setup
* Workbox
* *Lab: Workbox*
* Working with Promises
* *Lab: Promises*
* Working with the Fetch API
* *Lab: Fetch API practice*
* Caching files with the Service Worker
* *Lab: Caching files with the service worker*
* Working with Indexed DB
* *Lab: Indexed DB*
* Working with live data in the service worker
* Discoverability & Analytics
* Conclusion and Feedback

# Appendix: Links to all content

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 01 | Why Build Progressive Web Apps | [slides](https://drive.google.com/open?id=1Zc_kNaCOvieGG1K0O9cDMx4rKvsO5qTeqvlG-tY70ho) | N/A | N/A |
| 02 | Responsive design | [slides](https://drive.google.com/open?id=1xBJ25tfBeyQPjKZAGJ8Otr7EZeTdgQhC3MAE1my8Zy0) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_responsive_design.html) | N/A |
| 03 | Responsive images | [slides](https://drive.google.com/open?id=1TLE1wOkftpDZA4s9Km0v88soy6uh0VW3tLYmzhVSswQ) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_responsive_images.html) | N/A |
| 04 | Core technologies | [slides](https://drive.google.com/open?id=15s6xizzX3kY0pXjdhC3LayxQIDlkdNKUY1WEy58hdtE) | N/A | N/A |
| 05 | Intro to service workers | [slides](https://drive.google.com/open?id=1NPWqbNfFXKH6-egMtP86xxJRBYleFE8OrVakb_O_GII) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_scripting_the_service_worker.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/introduction_to_service_worker.html) |
| 06 | Offline quick start | [slides](https://drive.google.com/open?id=1e_T4N0EaZc9kpDPqVJwjkjJmd9Rr-66NMn1DHOT1P7o) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_offline_quickstart.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/offline_quickstart.html) |
| [07](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/offline_quickstart.html) | [Using Lighthouse](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/offline_quickstart.html) | [slides](https://drive.google.com/open?id=1_zxPL-EGrFe42JCHuMDaqyUT83Vhi_57wn_hb-FXwwQ) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_auditing_with_lighthouse.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/lighthouse-pwa-analysis-tool.html) |
| 08 | Intro to PWA architectures | [slides](https://drive.google.com/open?id=1EV2AHRfwD62H8Y9B9eo9Ztbfhxs3IUAWeDL2HeTV36g) | N/A | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/introduction-to-progressive-web-app-architectures.html) |
| 09 | Gulp setup | [slides](https://drive.google.com/open?id=1jtjkTOHfgOAf1Yk3KNFqvs7OxonmgyPdGxmfhqgmdKc) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_gulp_setup.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/introduction-to-gulp.html) |
| 10 | ~~sw-precache and sw-toolbox~~ Workbox | [slides](https://docs.google.com/presentation/d/12ZQFmKPua4C3L3Vi1pjQJ6dWZybrtzApmaz03eXMdJ8/edit#slide=id.p) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_workbox.html) | N/A |
| 11 | Promises | [slides](https://drive.google.com/open?id=15y-Z_ClsaAeFCXQH7bx1IJa-lu47BVtYnRGmESvW7Wk) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_promises.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/working_with_promises.html) |
| 12 | Fetch API | [slides](https://drive.google.com/open?id=1FR6Aqjzwiz3_u_soVKiN4UcI58nmxoogpCg4JwArkOc) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_fetch_api.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/working_with_the_fetch_api.html) |
| 13 | Caching files with the service worker | [slides](https://drive.google.com/open?id=18xiWSUJa9xPasGdGr-BGIaFPq3Kb6npWsQPwSMDLtCs) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_caching_files_with_service_worker.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/caching-files-with-service-worker.html) |
| 14 | IndexedDB | [slides](https://drive.google.com/open?id=11lHM9G-e75m2nIf_M6-L3HG71X5xNd9i8oIPdo8gOpI) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-codelabs/content/docs/lab_indexeddb.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/working-with-indexeddb.html) |
| 15 | Live data in the SW | [slides](https://drive.google.com/open?id=1jGSXLixKejRF9rzMST7ydSYLCv1dpUFDmDFDn-QxdW0) | N/A | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/live_data_in_the_service_worker.html) |
| 16 | Analytics | [slides](https://drive.google.com/open?id=1dkxVGAGT-12Cg_t51vKovInLjx9SxD4loaWHkQ-m5-s) | [lab](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/integrating-analytics.html) | [concepts](https://google-developer-training.gitbooks.io/progressive-web-apps-ilt-concepts/content/docs/integrating-analytics.html) |