**PWA – SERVICE WORKERS**

**Progressive Web Application:** is a term describing a Web application pattern/experience that is (Reliable, Fast, and Engaging). The general idea is that a PWA attempts to balance the performance and richness of a native application with the reach and availability of a Web application.

PWA are experiences that combine the best of the web and the best of apps. They are useful to users from the very first visit to a browser tab, no installation is required. As the user progressively builds a relationship with the app over time, it becomes more and more powerful. It loads quickly, even on flaky networks, sends relevant push notifications, has an icon on the home screen, and loads as a top-level, full-screen experience.

* Progressive: progressive enhancement is used throughout
* Discoverable: Easily discovered by search engines
* Linkable: it’s the web, linkable by definition
* Responsive: UI fits the device’s form factor and screen size
* App-like: looks & interacts like a native app.
* Connectivity Independent: Offline-first & cache support via service workers
* Re-engageable: Engage users through push notifications
* Installable: Install to the device’s home screen, run in full screen
* Fresh: Always get the newest data from the server.
* Secure: Always served over HTTPS
* Low Friction: Zero steps barrier, Just Use It!
* Just Web: Uses web technologies, HTML, JavaScript, and CSS
* Fast: Smooth navigations keep the experience silky smooth
* Instant Loading: With service workers at the heart
* Shiny Future: Many PWA features are still in labs, yet to come.

Service Workers are to PWA as XMLHttpRequest was to AJAX.

**Service Workers**

Huge performance impact if you can fetch content from the cache as opposed to a “Lie Fi” network connection. <https://youtu.be/px-J9Ghvcx4>

PRPL Pattern: PUSH-Render-PreCache-LazyLoad. A pattern for PWA design and delivery focused on both delivery, lunch, and execution.