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EXPERIMENT NO : 08

MAD and PWA Lab

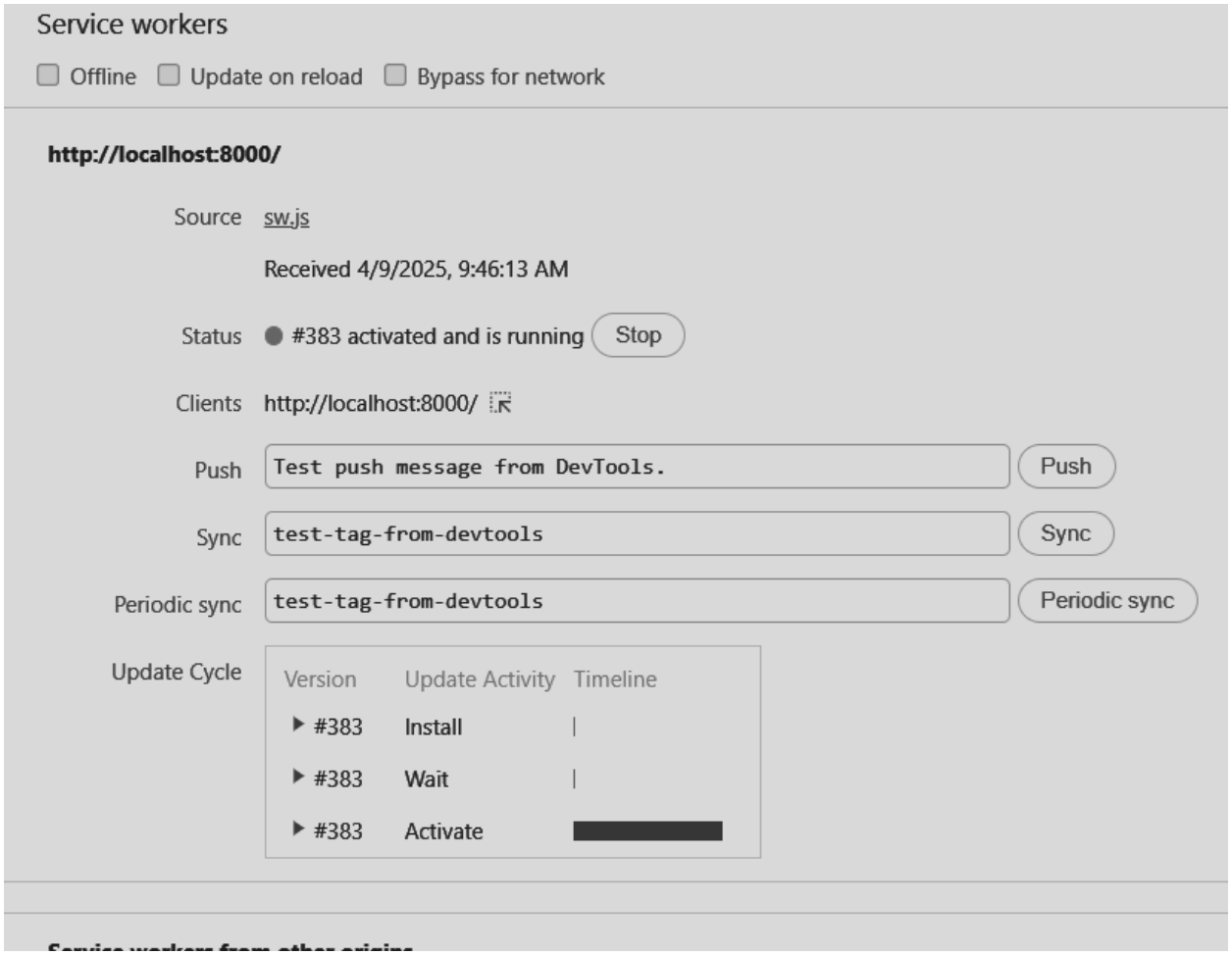
1. Aim:

To code and register a service worker, and complete the install and activation process for a new service worker for the E-commerce PWA.

2. Description:

This experiment focuses on Service Workers, which are essential for enabling advanced PWA features. A Service Worker is a JavaScript script that runs in the background of a web browser, independent of the web page. It acts as a programmable network proxy, allowing control over network requests, caching, and other background tasks.

- Key Concepts:
  - Service Worker: A background script that handles network requests, caching, and push notifications.
  - Registration: The process of telling the browser where the Service Worker script is located.
  - Installation: The event when the browser installs the Service Worker, allowing for caching of assets.
  - Activation: The stage where the Service Worker becomes active and takes control of the pages within its scope.
  - Caching: Storing assets (e.g., HTML, CSS, images) to provide offline access and improve performance.
- Service Worker Lifecycle:
  - Registration: The Service Worker is registered with the browser.
  - Installation: The `install` event is fired, and assets can be cached.
  - Activation: The `activate` event is fired, and the Service Worker takes control.
  - Fetch: Intercepts network requests.



3. Conclusion:

This experiment demonstrates the process of coding, registering, installing, and activating a service worker. Service workers are crucial for PWAs, enabling offline functionality, caching, and enhanced performance.

4. GitHub Link:

https://github.com/atharvnikam38/techkart-pwa