

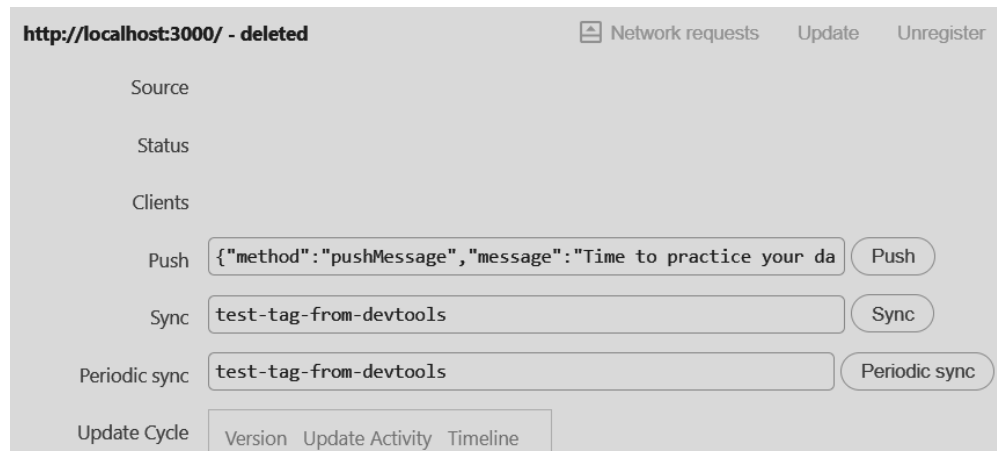
Experiment No. 9

Aim: To implement Service Worker events like fetch, sync, and push for the E-commerce PWA.

Explanation:

In this experiment, we added support for service worker events such as fetch to cache and serve requests, sync to handle background synchronization, and push to display notifications. These events make the PWA more efficient, reliable, and interactive.

ScreenShot:



```
// Background sync registration (simulate saving vocab progress)
if ('serviceWorker' in navigator && 'SyncManager' in window) {
  navigator.serviceWorker.ready.then(registration => {
    return registration.sync.register('sync-vocab-progress');
  }).then(() => {
    console.log("Background Sync Registered ✓");
  }).catch(console.error);
}

// Ask for push notification permission
Notification.requestPermission().then(permission => {
  if (permission === "granted") {
    console.log("🔔 Notification permission granted.");
  }
});
```

Conclusion:

By implementing fetch, sync, and push events in the service worker, we improved the performance, offline support, and user engagement of the E-commerce PWA. These features enable real-time updates, background tasks, and seamless user