Name:- Sai Rane Div:- D15C Roll No. :- 43

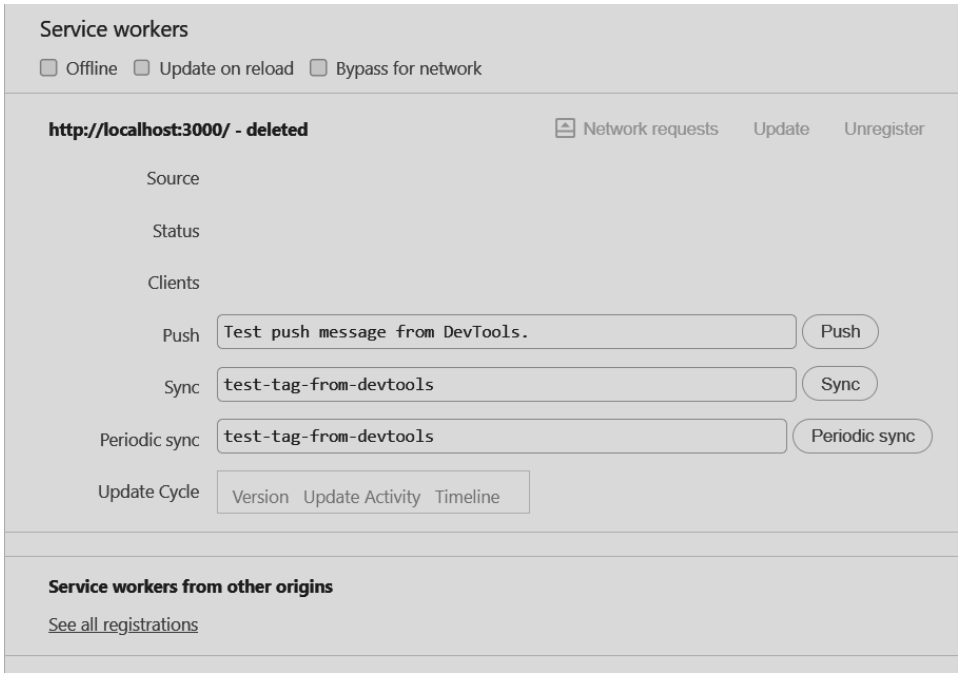
Experiment No. 8

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.

In this experiment, we wrote and registered a service worker for our E-commerce PWA. The service worker handles caching and runs in the background, allowing the app to work offline and load faster by intercepting network requests.

ScreenShot:



Name:- Sai Rane Div:- D15C Roll No. :- 43

```
// Cache name
const CACHE_NAME = "langlearn-cache-v1";

// Files to cache
const urlsToCache = [
  "/",
  "/index.html",
  "/icons/icon-192.png",
  "/icons/icon-512.png"
];

// Install event
self.addEventListener("install", event => {
  console.log("[Service Worker] Install");
  event.waitUntil(
    caches.open(CACHE_NAME).then(cache => {
      console.log("[Service Worker] Caching app shell");
      return cache.addAll(urlsToCache);
    })
  );
});
```

```
// Activate event
self.addEventListener("activate", event => {
  console.log("[Service Worker] Activated");
  event.waitUntil(
    caches.keys().then(keys =>
      Promise.all(
        keys.map(key => {
          if (key !== CACHE_NAME) {
            console.log("[Service Worker] Removing old cache:", key);
            return caches.delete(key);
          }
        })
      )
    )
  );
});

// Fetch event
self.addEventListener("fetch", event => {
  event.respondWith(
    caches.match(event.request).then(response => {
      return response || fetch(event.request);
    })
  );
});
```

Conclusion:

By coding and registering a service worker, we enabled offline support and caching capabilities for the E-commerce PWA. The successful installation and activation of the service worker enhanced the app's reliability and performance, especially in low or no internet connectivity.