

Vivekanand Education Society's Institute of Technology  
Department of Information Technology



# PROGRESSIVE WEB APP

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WOODEX – FURNITURE APP

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# Introduction

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Woodex is a Progressive Web App (PWA) designed to provide a seamless e-commerce experience for buying furniture products. With its user-friendly interface and robust features, Woodex aims to revolutionize the way users shop for furniture online.

## **Features:**

- Fast loading times.
  - Offline access to previously viewed products.
  - Add to home screen feature for easy access.
  - Service worker events for improved performance.
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# Problem Statement

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**Problem:** Traditional e-commerce websites often suffer from slow loading times and poor user engagement, especially on mobile devices.

**Challenges:**

- Limited offline functionality.
- Lack of native app-like experience.
- Poor performance on slower networks.

**Solution:** Develop a PWA that offers fast loading times, offline access, and a responsive design for a seamless user experience.

# Objectives

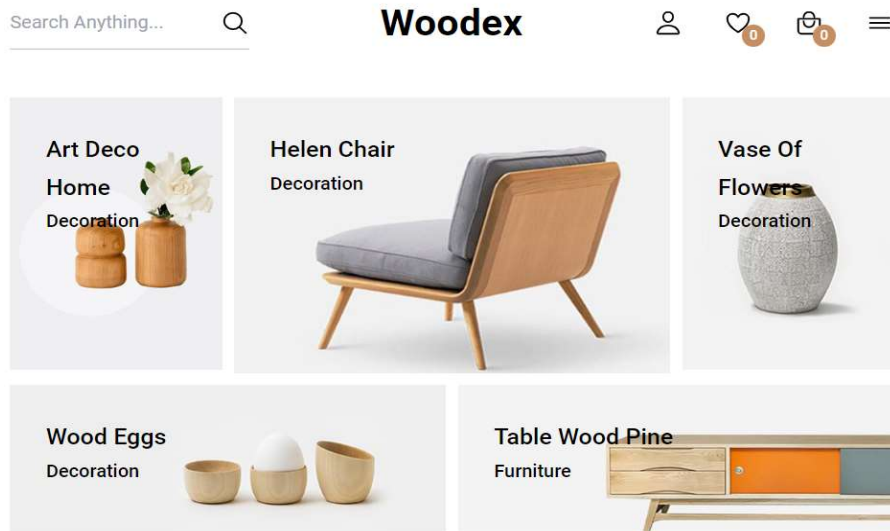
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1. Develop an e-commerce Progressive Web App (PWA) for selling furniture products.
2. Implement PWA features to enhance user experience and performance.
  - A) Write metadata of E-commerce PWA and add to home screen feature.
  - B) Code and register service worker and complete install and activation.
  - C) Implement service worker events like fetch, sync and push for E-commerce.
3. Deploy the PWA on GitHub Pages for easy access and testing.
4. Use Google Lighthouse PWA analysis tool to evaluate and optimize the PWA's performance.

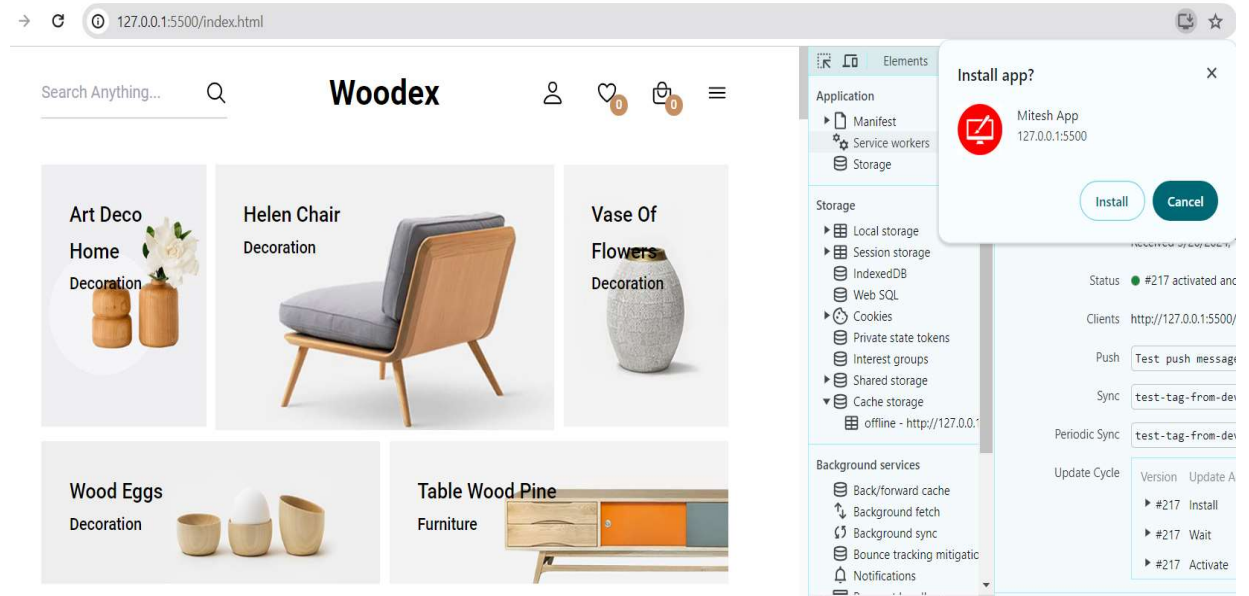
# Implementation

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Before performing PWA tasks:



Add to home  
screen feature



# Registration of Service Worker

The screenshot shows the Chrome DevTools Application tab. The left sidebar is expanded to 'Cache storage', showing an offline cache for the URL 'http://127.0.0.1:5500'. The main panel displays the details of this cache, including its origin, bucket name, persistence, durability, quota, and expiration. Below this, a table lists the cached resources.

Application

- Manifest
- Service workers
- Storage

Storage

- Local storage
- Session storage
- IndexedDB
- Web SQL
- Cookies
- Private state tokens
- Interest groups
- Shared storage
- Cache storage
  - offline - http://127.0.0.1:5500

Background services

- Back/forward cache
- Background fetch
- Background sync
- Bounce tracking mitigation
- Notifications

Filter by Path

http://127.0.0.1:5500

Origin http://127.0.0.1:5500

Bucket name default

Is persistent No

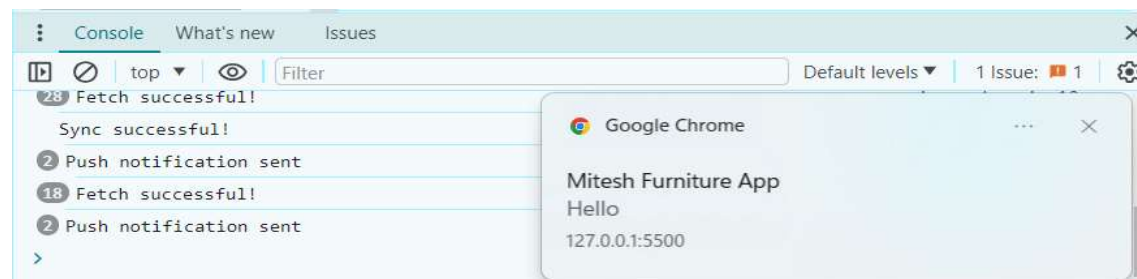
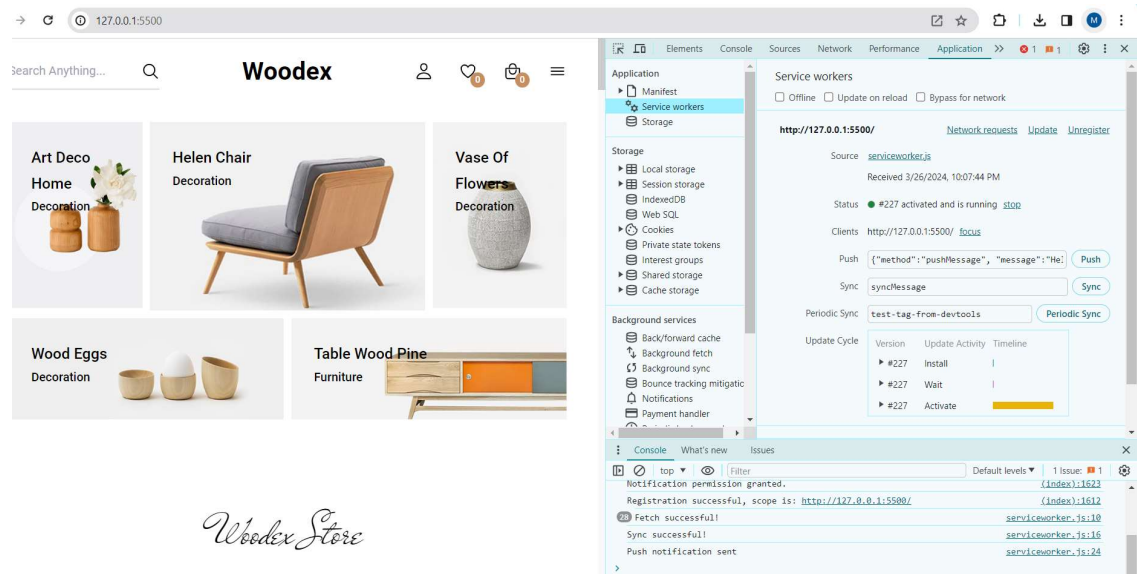
Durability relaxed

Quota 0 B

Expiration None

#	Name	Resp...	Cont...	Con...	Tim...	Vary...
0	/	basic	text/...	53,9...	3/26...	Origin
1	/assets/css/style.css	basic	text/...	17,6...	3/26...	Origin
2	/assets/images/about-banne...	basic	ima...	23,1...	3/26...	Origin
3	/assets/images/hero-produc...	basic	ima...	16,3...	3/26...	Origin
4	/assets/images/hero-produc...	basic	ima...	29,3...	3/26...	Origin
5	/assets/images/hero-produc...	basic	ima...	13,8...	3/26...	Origin
6	/assets/images/hero-produc...	basic	ima...	10,9...	3/26...	Origin
7	/assets/images/hero-produc...	basic	ima...	17,6...	3/26...	Origin

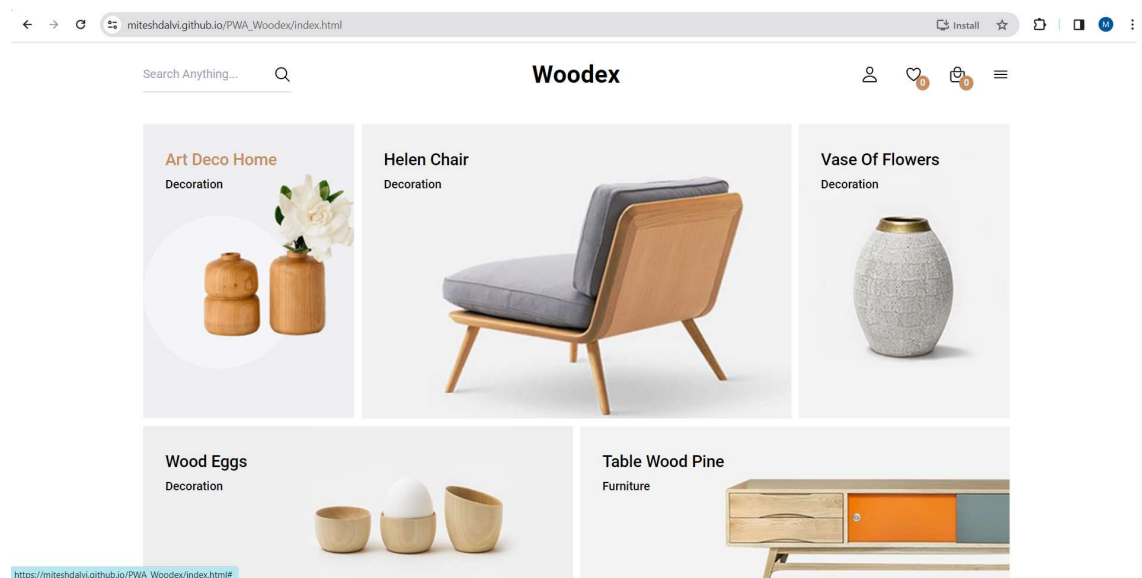
# Fetch, Sync and Push Events



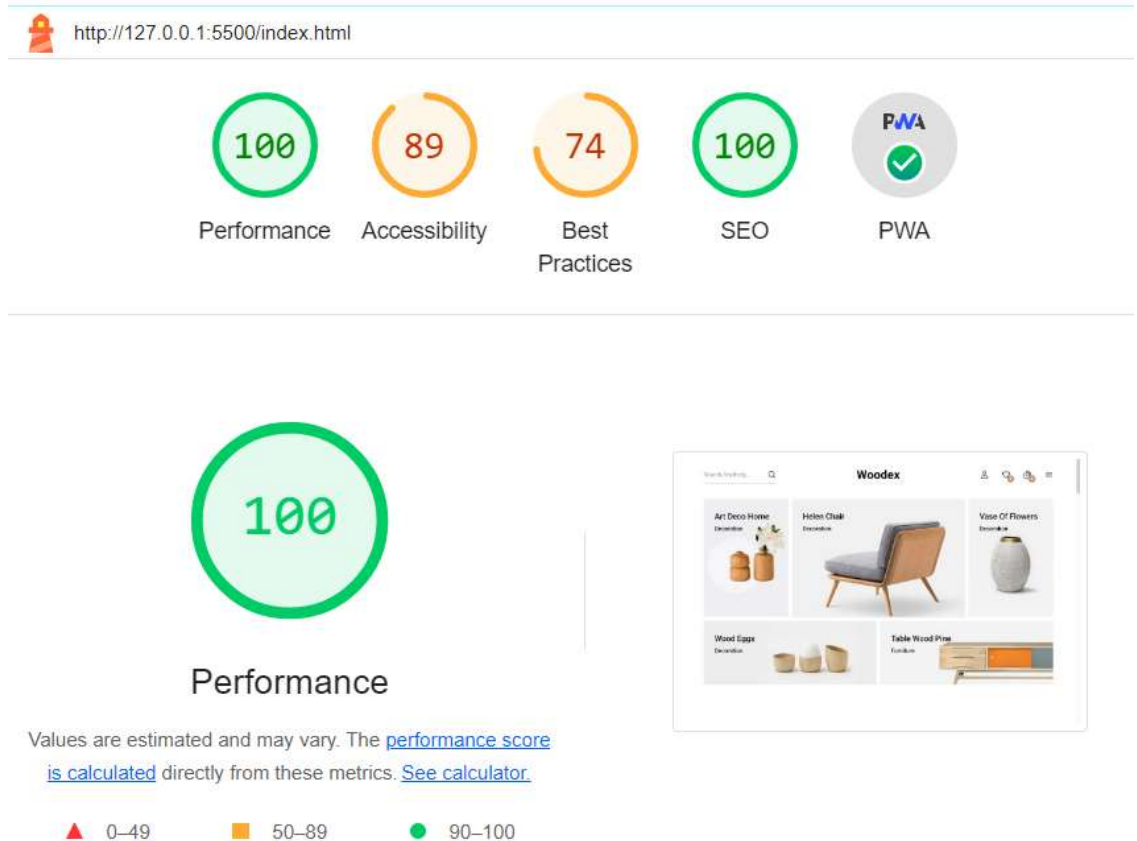


# Deploy to Github Pages

[https://miteshdalvi.github.io/PWA\\_Woodex/index.html](https://miteshdalvi.github.io/PWA_Woodex/index.html)



# Test PWA performance on Google Lighthouse



# Conclusion

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In conclusion, the development of Woodex - A Furniture App as a Progressive Web App (PWA) has been a significant step towards enhancing the e-commerce experience for furniture buyers. By implementing PWA features such as fast loading times, offline access, and a responsive design, Woodex offers users a native app-like experience while maintaining the accessibility of a web app.

