

## Experiment 07

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**Aim:** To write metadata in a Web App manifest file for an E-commerce Progressive Web App (PWA) to enable the **"Add to Home Screen"** feature. This functionality allows users to install the web app on their devices and use it like a native application.

### Theory:

#### Regular Web App vs Progressive Web App (PWA):

- **Regular Web App:** A regular web app is simply a website that is accessible through a browser on mobile or desktop devices. While it adapts to screen sizes using responsive design, it lacks native app-like functionality.
- **Progressive Web App (PWA):** A PWA is an enhanced version of a regular web app that brings several features like offline functionality, push notifications, faster load times, and the ability to be added to the home screen. PWAs aim to offer a native app experience directly in the browser.

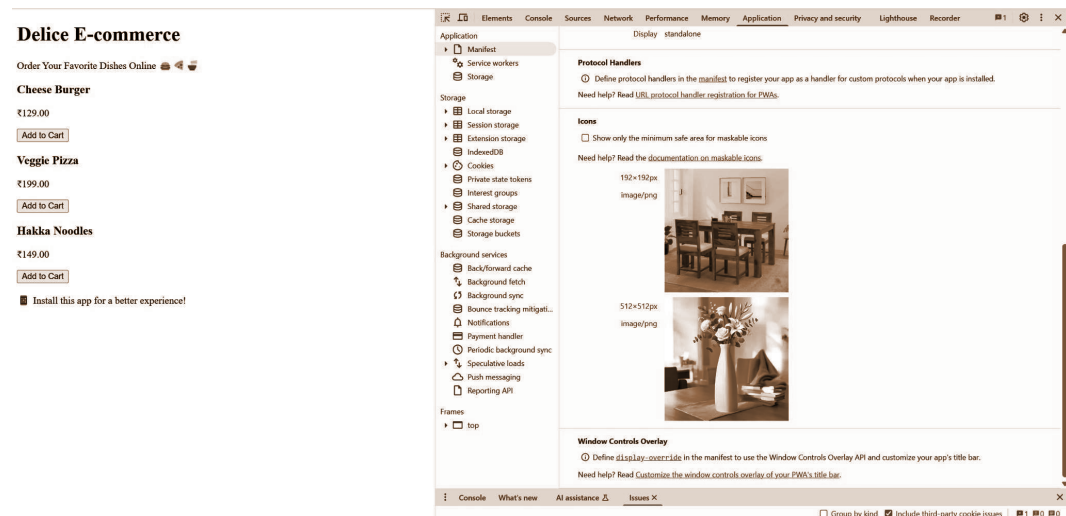
### Implementation:

To enable the **"Add to Home Screen"** feature, the following steps were followed:

1. **Create a Web App Manifest File:** The manifest file contains essential metadata about the app, including the app's name, icons, starting URL, and display preferences. This is the core component that allows the app to be recognized and added to the user's home screen.

2. **Link the Manifest to the HTML File:** After creating the manifest file, it is linked within the HTML file to inform the browser about the app's metadata.
3. **Host the App Over HTTPS:** For security reasons, PWAs must be served over HTTPS. This is crucial for the **"Add to Home Screen"** feature to work, as modern browsers only allow this functionality on secure sites.

### Output:



### Conclusion:

By adding metadata to the manifest file and ensuring the correct setup, the **"Add to Home Screen"** feature was successfully enabled for our E-commerce Progressive Web App. This experiment demonstrated the core principles behind PWAs and their advantages over traditional web applications. With features like offline support, cross-platform compatibility, and push notifications, PWAs offer an effective solution for delivering a seamless app-like experience on the web. The ability to install the app on a device's home screen without the need for an app store significantly enhances the accessibility and usability of web applications.