

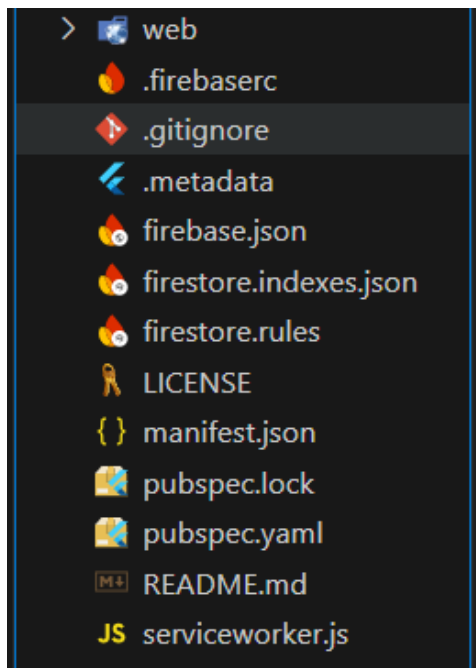
Experiment No. 7

AIM: To write meta data of your Ecommerce PWA in a Web app manifest file to enable "add to homescreen feature".

THEORY:

Regular Web App

A regular web app is a website that is designed to be accessible on all mobile devices such that the content gets fit as per the device screen. It is designed using a web technology stack (HTML, CSS, JavaScript etc.) and operates via a browser. They offer various native-device features and functionalities. However, it entirely depends on the browser the user is using. In other words, it might be possible that you can access a native-device feature on Chrome but not on Safari or Mozilla Firefox because the browsers are incompatible with that feature.



Progressive Web App

Progressive Web App (PWA) is a regular web app, but some extras enable it to deliver an excellent user experience. It is a perfect blend of desktop and mobile application experience to give both platforms to the end-users.

manifest.json

```
{
  "name": "HomeEase Ecommerce",
  "short_name": "HomeEase",
  "description": "Your one-stop solution for all home essentials.",
  "start_url": "/index.html",
  "display": "standalone",
  "background_color": "#ffffff",
  "theme_color": "#4CAF50",
  "icons": [
    {
      "src": "/icons/icon-192x192.png",
      "sizes": "192x192",
      "type": "image/png"
    },
    {
      "src": "/icons/icon-512x512.png",
      "sizes": "512x512",
      "type": "image/png"
    }
  ]
}
```

serviceworker.js

```
const CACHE_NAME = "homeease-cache-v1";
const urlsToCache = [
  "/",
  "/index.html",
  "/manifest.json",
  "/icons/icon-192x192.png",
  "/icons/icon-512x512.png",
  "/styles.css",
  "/script.js"
];

// Install the service worker and cache assets
self.addEventListener("install", (event) => {
  event.waitUntil(
    caches.open(CACHE_NAME).then((cache) => {
      console.log("Opened cache");
      return cache.addAll(urlsToCache);
    })
  );
});

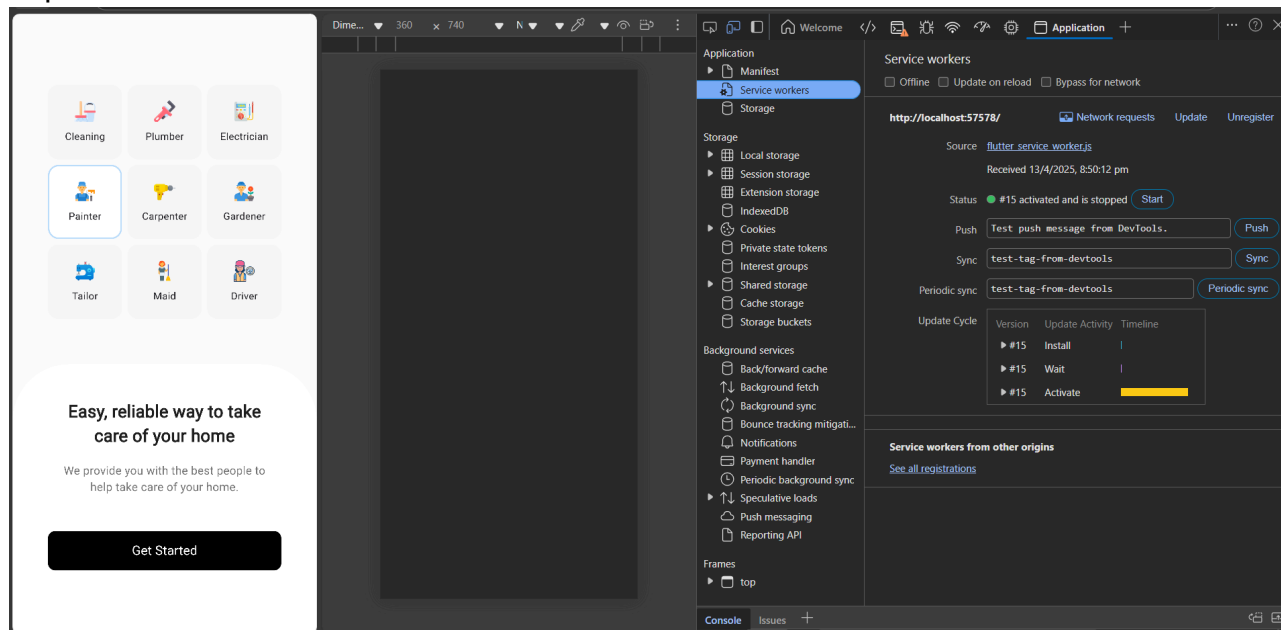
// Fetch assets from the cache or network
self.addEventListener("fetch", (event) => {
  event.respondWith(
    caches.match(event.request).then((response) => {
      return response || fetch(event.request);
    })
  );
});
```

```
});
```

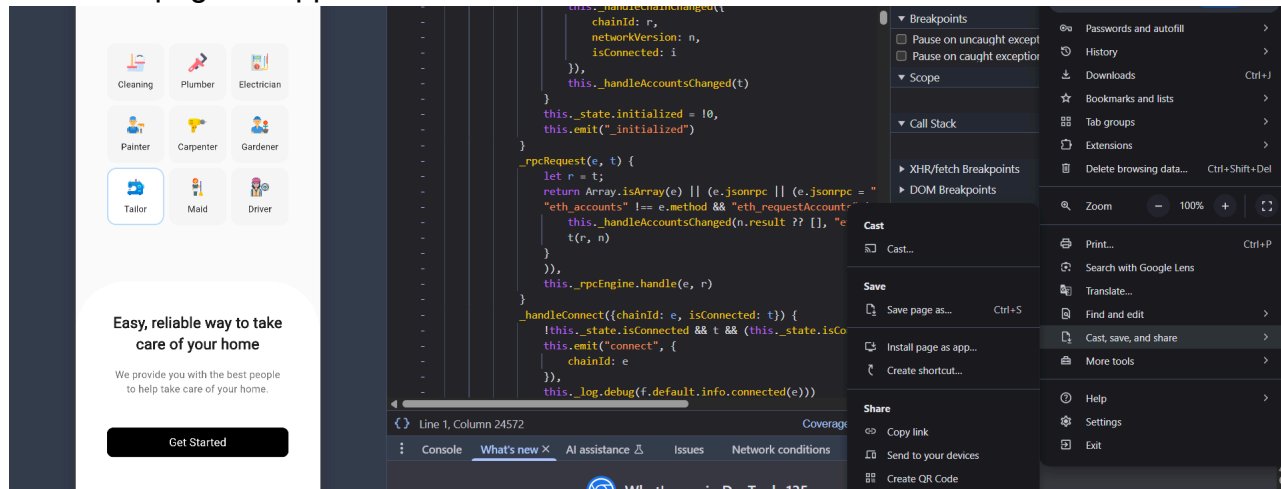
```
// Activate the service worker and clean up old caches
```

```
self.addEventListener("activate", (event) => {  
  const cacheWhitelist = [CACHE_NAME];  
  event.waitUntil(  
    caches.keys().then((cacheNames) => {  
      return Promise.all(  
        cacheNames.map((cacheName) => {  
          if (!cacheWhitelist.includes(cacheName)) {  
            return caches.delete(cacheName);  
          }  
        })  
      );  
    })  
  );  
});
```

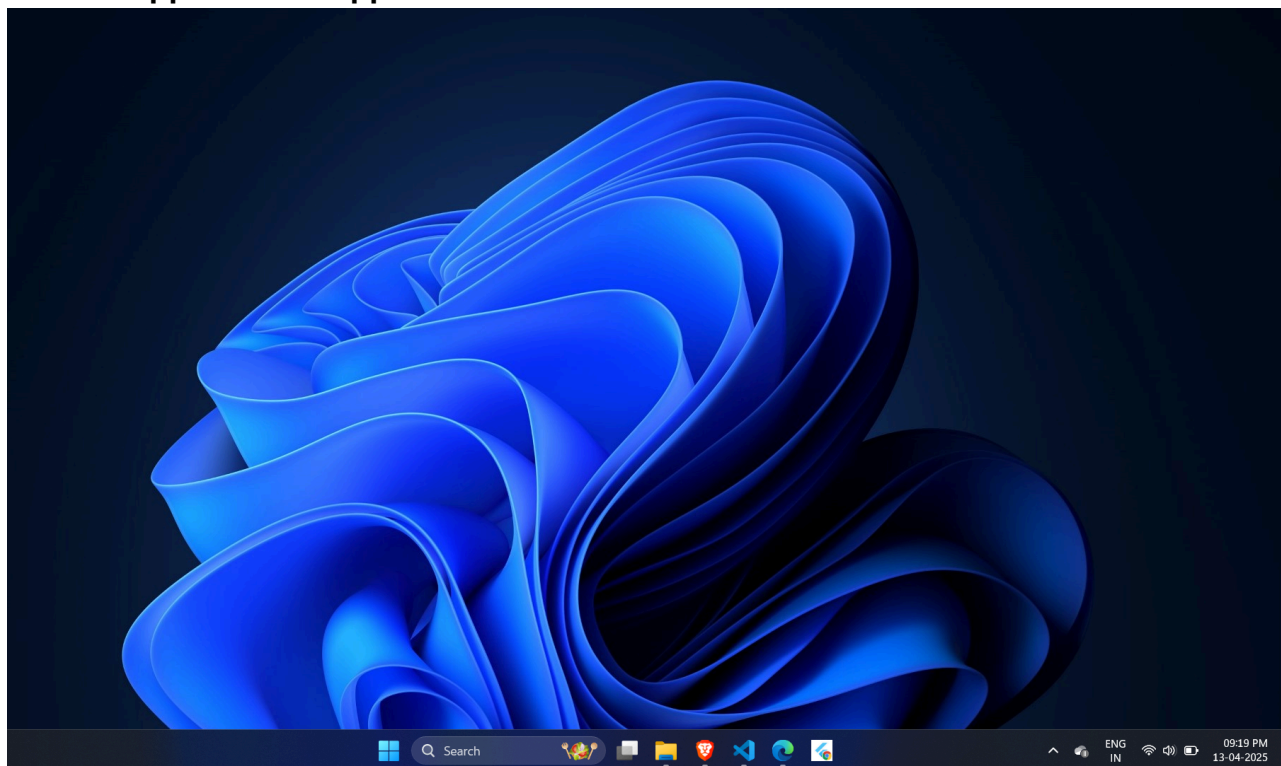
Open localhost:57578 on the browser



Click on 3 dots on the top right corner of the browser → go to **Save and Share** → Click on install page as app



Flutter App Icon will appear at the bottom of home screen:



CONCLUSION:

Hence, we learnt how to write a metadata of our E-commerce website PWA in a Web App Manifest File to enable add to homescreen feature.

