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Subject : MPL Exp 07

Aim : To write metadata for an eCommerce Progressive Web App (PWA) in a web app manifest file to enable the "Add to Home Screen" feature.

Theory :
Web App Manifest : The Web App Manifest is a JSON file that provides metadata about a web application (such as an eCommerce site). It allows the app to be installed on a user's device and launched like a native app, especially on mobile devices.

Why It's Important for eCommerce PWAs : For an eCommerce PWA, the manifest file helps create a native-app-like experience.
This includes:
  ● Letting users add your store to their home screen.
  ● Launching the app in fullscreen or standalone mode.
  ● Displaying a custom icon and splash screen.
  ● Maintaining consistent branding and UX.

"Add to Home Screen" : Add to Home Screen is a feature that allows users to install a PWA to their device's home screen. Once installed, it feels similar to a native app. For this to work, the web app manifest must be properly configured, and the app must meet certain criteria:

Add to Home Screen Requirements :
  1. Manifest file must be present with required fields.
  2. HTTPS must be used (secure origin).
  3. A Service Worker must be registered.
  4. The site must be visited at least once.

Key Metadata Fields in manifest.json Example :
```
{
  "name": "ShopMate",
  "short_name": "ShopMate",
  "description": "Your one-stop eCommerce app for shopping everything you need.",
  "start_url": "/?source=a2hs",
  "display": "standalone",
  "background_color": "#ffffff",
  "theme_color": "#ff6f61",
```
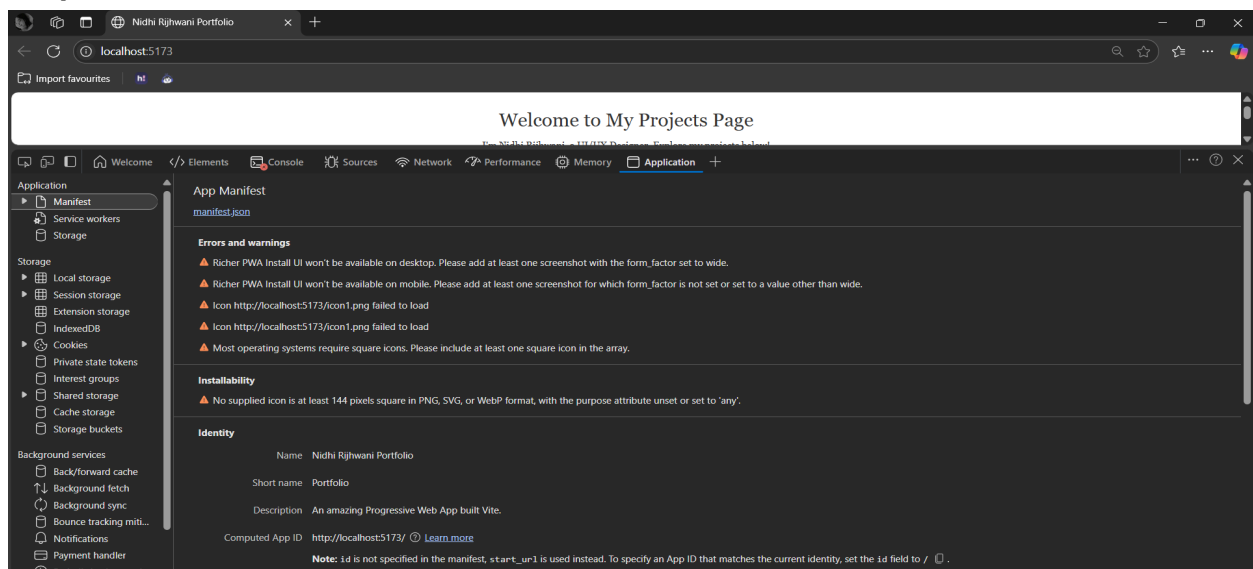
```
    "orientation": "portrait",
  "icons": [
    {
      "src": "/icons/icon-192x192.png",
      "sizes": "192x192",
      "type": "image/png"
    }
  ]
}
```
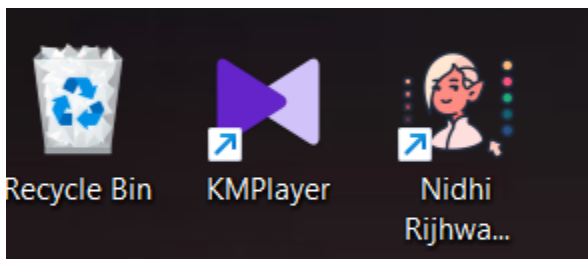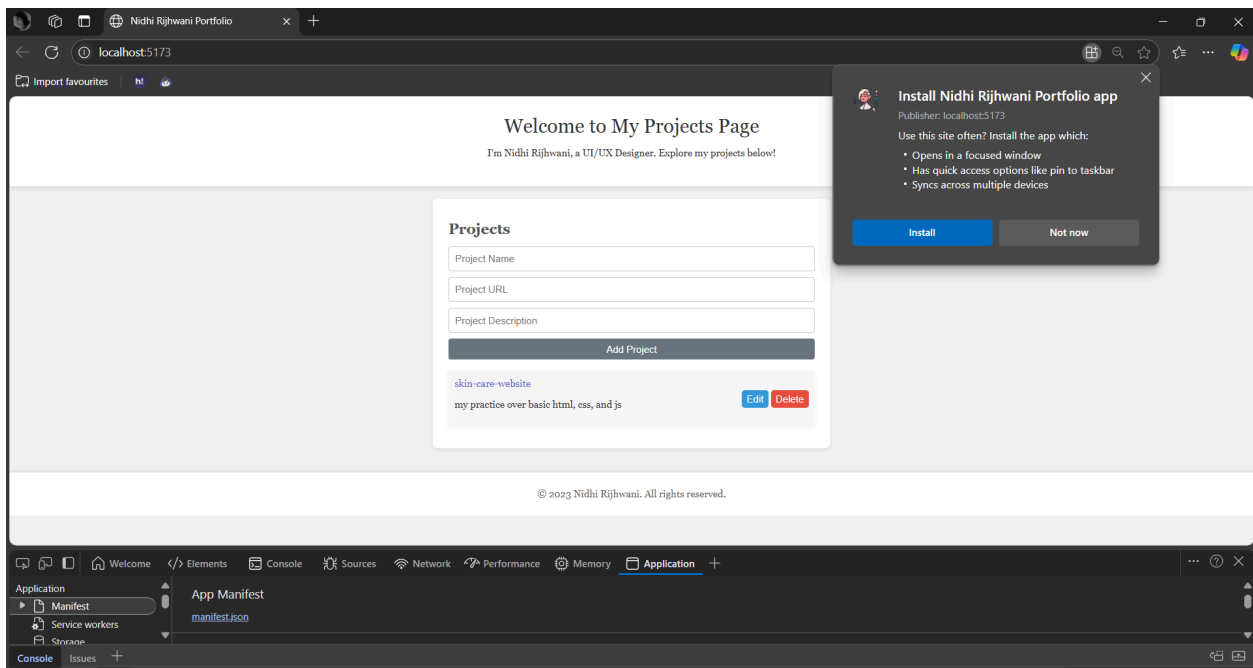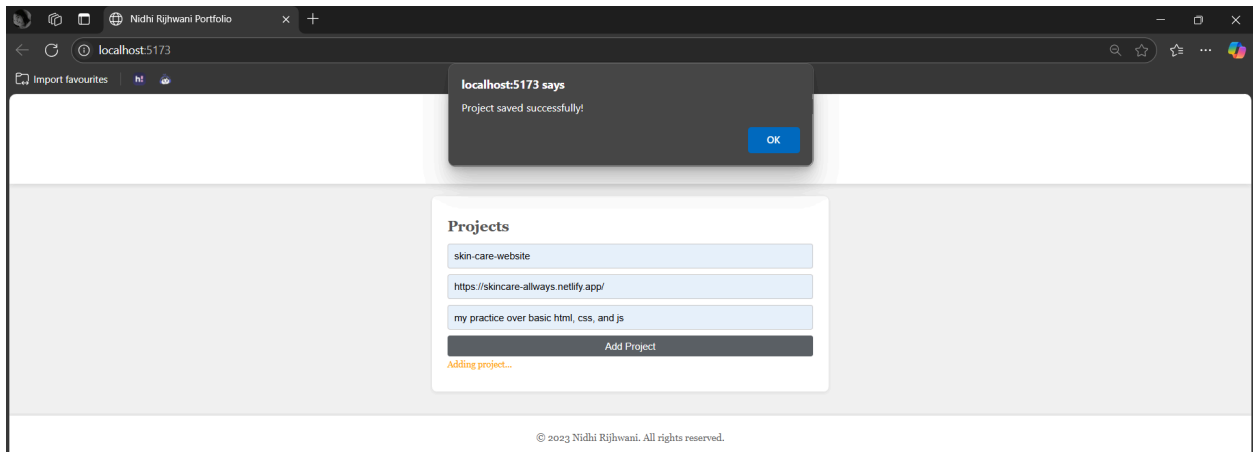
Explanation of Important Fields :

Field	Purpose
name	Full name shown when app is launched or installed.
short_name	Shown on home screen (limited space).
description	Describes what the app does (useful for install prompts).
start_url	The URL the app opens to when launched.
display	Controls the browser UI. "standalone" makes it feel like a native app.
background_color	Background color for the splash screen.
theme_color	Change the color of the browser's UI to match your brand.
icons	App icons used on home screen and splash screen.

Output :

Conclusion :

In conclusion, the Web App Manifest is crucial for enabling the "Add to Home Screen" feature in eCommerce PWAs. It allows the app to behave like a native application by defining important metadata such as the name, icon, theme color, and display mode. This enhances user experience, promotes brand recognition, and encourages repeat visits key elements for growth and retention in the eCommerce environment.