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MPL Practical 07

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

Theory:

In Progressive Web Apps (PWAs), a Web App Manifest is a JSON file that provides important information about the web application. This file allows the browser to understand how the app should behave when installed on a user's device. It plays a key role in enabling the "Add to Homescreen" feature, which makes the website feel like a native mobile app.

The manifest file typically includes:

- The name and short name of the app
- The start URL (i.e., where the app opens from the home screen)
- The display mode (e.g., standalone, fullscreen)
- Theme color and background color
- App icons in various sizes for mobile and desktop compatibility
- A description to tell users what the app does

What We Implemented

In our eCommerce website "Swad Maharashtra Cha", we created a `manifest.json` file to define the essential metadata for our PWA. Here's what we included:

- App Name: "Swad Maharashtra Cha" to represent our brand offering authentic Maharashtrian food.
- Short Name: "SwadMaha" which appears under the app icon when installed.
- Start URL: "index.html" so that the app always starts from the homepage.
- Display Mode: "standalone" to make it look like a native app (no browser UI).
- Theme Color: `#b22222` matching our brand's rich red palette.
- Background Color: `#ffffff` for a clean, neutral background when loading.
- Icons: We added two icons (192x192 and 512x512) so that the app icon looks good on all screen sizes.
- Description: To describe the purpose of our app — delivering traditional Maharashtrian spices, sweets, and snacks.

By linking the manifest in our `index.html` and ensuring proper metadata, our website now supports the "Add to Homescreen" feature on supported browsers. When a user visits our site on mobile, they can install it to their home screen and enjoy an app-like experience.

Folder Structure:



Code:**index.html**

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <!-- PWA Theme Color -->
    <meta name="theme-color" content="#b22222" />

    <!-- SEO Meta Tags -->
    <meta
      name="description"
      content="Authentic Maharashtrian Spices & Food – Buy famous spices, masalas, and traditional items
like Puran Poli, Bhakarwadi, Modaks, and Chitale Bandhu snacks online."
    />
    <meta
      name="keywords"
      content="Maharashtrian food, Goda masala, Bhakarwadi, Modaks, Puran Poli, Chitale Bandhu
snacks, Malvani masala, online spice store"
    />
    <meta name="author" content="Swad Maharashtra Cha" />

    <title>Swad Maharashtra Cha - Authentic Maharashtrian Food</title>

    <!-- Manifest File for PWA -->
    <link rel="manifest" href="manifest.json" />

    <!-- Stylesheet -->
    <link rel="stylesheet" href="style.css" />

    <!-- Google Fonts -->
    <link
      href="https://fonts.googleapis.com/css2?family=Playfair+Display:wght@400;700&family=Poppins:wght
@300;400;500;600&display=swap"
      rel="stylesheet"
    />
  </head>
  <body>

    <script>
      if ("serviceWorker" in navigator) {
        navigator.serviceWorker
          .register("serviceworker.js")
          .then(() => console.log("Service Worker Registered"))
          .catch((error) =>

```

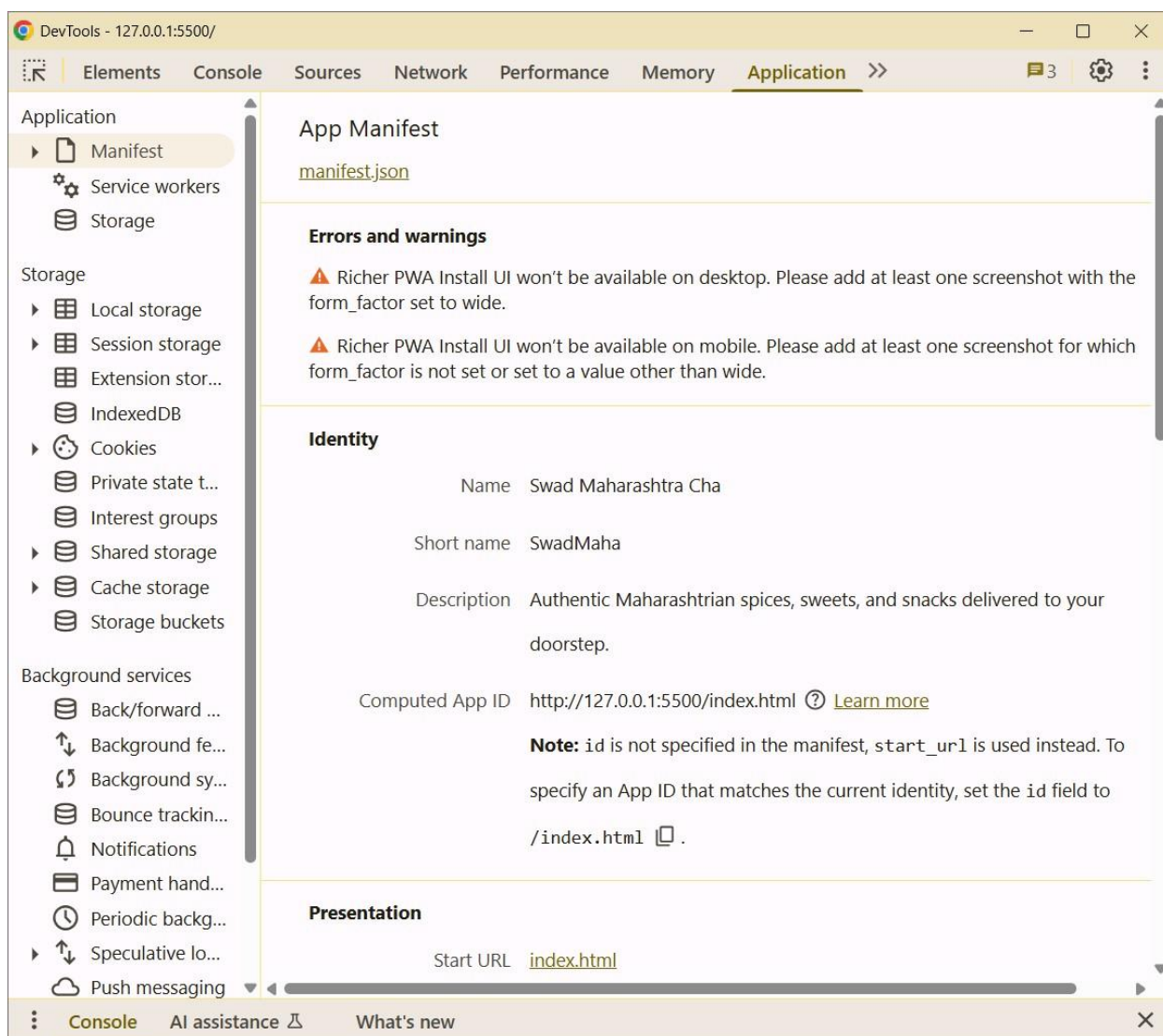
```
    console.log("Service Worker Registration Failed", error)
  );
}
</script>

<script src="script.js"></script>
</body>
</html>
```

manifest.json

```
{
  "name": "Swad Maharashtra Cha",
  "short_name": "SwadMaha",
  "start_url": "index.html",
  "display": "standalone",
  "background_color": "#ffffff",
  "theme_color": "#b22222",
  "description": "Authentic Maharashtrian spices, sweets, and snacks delivered to your doorstep.",
  "icons": [
    {
      "src": "icons/icon-192x192.png",
      "sizes": "192x192",
      "type": "image/png"
    },
    {
      "src": "icons/icon-512x512.png",
      "sizes": "512x512",
      "type": "image/png"
    }
  ]
}
```

Screenshot



DevTools - 127.0.0.1:5500/

Elements Console Sources Network Performance Memory Application >>

Application

- Manifest
- Service workers
- Storage

Storage

- Local storage
- Session storage
- Extension stor...
- IndexedDB
- Cookies
- Private state t...
- Interest groups
- Shared storage
- Cache storage
- Storage buckets

Background services

- Back/forward ...
- Background fe...
- Background sy...
- Bounce trackin...
- Notifications
- Payment hand...
- Periodic backg...
- Speculative lo...
- Push messaging

Theme color ■ #b22222

Background color ☐ #ffffff

Orientation

Display standalone

Protocol Handlers

Define protocol handlers in the [manifest](#) to register your app as a handler for custom protocols when your app is installed.


Need help? Read [URL protocol handler registration for PWAs](#).

Icons

☐ Show only the minimum safe area for maskable icons

Need help? Read the [documentation on maskable icons](#).

192×192px
image/png



**Conclusion:**

In this experiment, we successfully implemented the `manifest.json` file for our Swad Maharashtra Cha PWA, enabling the “Add to Homescreen” feature with proper app metadata and icons. Initially, we faced an error where the app was not installable due to a missing icon path, but we resolved it by correctly placing the icons in the specified folder and updating the manifest.