

MPL Lab 7
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24

Aim: To create and configure a Web App Manifest file that enables Progressive Web App (PWA) features such as “Add to Home Screen” and native-like appearance.

Theory: The Web App Manifest is a simple JSON file that provides essential information about a web application (such as name, icons, theme color, and start URL). It allows a browser to install the web application to a device's home screen and launch it in a standalone window without the browser UI, offering a native app-like experience.

The manifest must be linked in the HTML <head> for the browser to recognize and apply it.

Steps to Perform:

Create manifest.json: Place this file in the root or public/ directory of your project.

```
json
{
  "name": "My E-Commerce App",
  "short_name": "ShopApp",
  "start_url": "/index.html",
  "display": "standalone",
  "background_color": "#ffffff",
  "theme_color": "#6200ea",
  "orientation": "portrait",
  "icons": [
    {
      "src": "icons/icon-192x192.png",
      "type": "image/png",
      "sizes": "192x192"
    },
    {
      "src": "icons/icon-512x512.png",
      "type": "image/png",
      "sizes": "512x512"
    }
  ]
}
```

1.

Link Manifest in HTML: In your index.html:

```
html
<link rel="manifest" href="manifest.json">
<meta name="theme-color" content="#6200ea">
```

Add Icons:

Include icons in the specified sizes inside the /icons folder. These are used for the app shortcut on mobile.

Test in Browser:

- Run your app.
- Open Developer Tools → Application tab → Manifest.
- Check for successful registration and “Install” prompt.

Key Features:

- **App-Like Feel:** Runs in full-screen mode.
- **Custom Branding:** Shows app name and icon on the home screen.
- **Offline Availability:** Combined with service workers, enhances offline UX.
- **Multi-Device Support:** Works on mobile, tablet, desktop.

```
frontend > build > {} manifest.json > ...
1  {
2    "short_name": "MyApp",
3    "name": "My MERN PWA App",
4    "id": "/",
5    "start_url": ".",
6
7    "display": "standalone",
8    "background_color": "#ffffff",
9    "theme_color": "#6200ee",
10   "icons": [
11     {
12       "src": "icons/icon-192x192.png",
13       "sizes": "192x192",
14       "type": "image/png",
15       "purpose": "any"
16     },
17     {
18       "src": "icons/icon-512x512.png",
19       "sizes": "512x512",
20       "type": "image/png",
21       "purpose": "any"
22     }
23   ]
24 }
```

```
PS D:\Downloads\millets-main\millets-main\frontend> serve -s build
```

Serving!

- Local: http://localhost:3000

Application

Manifest

Service workers

Storage

Storage

Local storage

Session storage

Extension storage

IndexedDB

Cookies

Private state tokens

Interest groups

Shared storage

Cache storage

Storage buckets

Background services

Back/forward cache

Background fetch

Background sync

Bounce tracking mitigations

Manifest

App Manifest

manifest.json

Identity

Name

My MERN PWA App

Short name

MyApp

Description

Computed App ID

http://localhost:3000/ [Learn more](#)

Presentation

Start URL

Theme color

#6200ee

Background color

#ffffff

Orientation

Display

standalone