Practical 7

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Aim:

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

Theory:

A **Progressive Web App (PWA)** enhances a regular web application by making it installable and capable of running offline like a native app. One of the key components that make a web app a PWA is the **Web App Manifest** file — a simple JSON file that provides essential metadata about the app.

In this experiment, we created a manifest.json file for an E-commerce web application named **Festival Combo Shop**. This file includes details like:

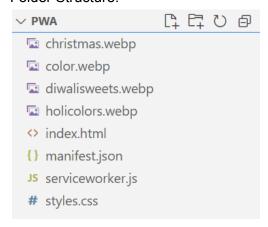
- App name and short name for display
- Start URL, display mode (standalone), background color, and theme color
- A **description** for the app
- A list of **icons** in required formats (PNG, 192x192 and 512x512, with purpose: "any")
- Screenshots of the app to showcase its interface

These details allow modern browsers to recognize the web app as a PWA and prompt users with an "Add to Home Screen" option.

We also fixed common validation issues such as:

- Ensuring icons are of minimum size 144x144
- Using proper image formats like PNG and WEBP
- Setting the required sizes and purpose attributes for icons

Folder Structure:



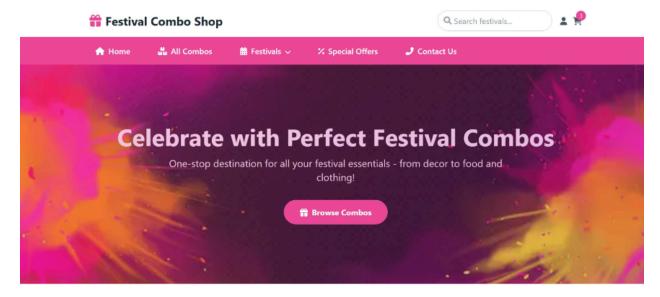
```
Index.html
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Festival Combo Shop</title>
  <link rel="manifest" href="manifest.json">
  k href="https://cdn.jsdelivr.net/npm/tailwindcss@2.2.19/dist/tailwind.min.css" rel="stylesheet">
  k rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.0.0-beta3/css/all.min.css">
  <style>
     .festival-card {
       transition: transform 0.3s ease, box-shadow 0.3s ease;
    }
     .festival-card:hover {
       transform: translateY(-5px);
       box-shadow: 0 10px 25px rgba(0, 0, 0, 0.1);
     }
     .btn-animation {
       transition: all 0.3s ease;
     }
     .btn-animation:hover {
       transform: translateY(-2px);
       box-shadow: 0 5px 15px rgba(0, 0, 0, 0.1);
     }
     .hero-section {
  background-image: linear-gradient(rgba(0, 0, 0, 0.5), rgba(0, 0, 0, 0.5)), url('/images/color.webp');
}
  </style>
</head>
<script>
     if ('serviceWorker' in navigator) {
      window.addEventListener('load', () => {
       navigator.serviceWorker.register('/serviceworker.js')
         .then(reg => {
          console.log('Service Worker registered successfully:', reg.scope);
        })
```

```
.catch(err => {
          console.error('Service Worker registration failed:', err);
        });
      });
    }
   </script>
Manifest.json
  "name": "Festival Combo Shop",
  "short_name": "Festival Combos",
  "start_url": "./index.html",
  "display": "standalone",
  "background_color": "#f9fafb",
  "theme_color": "#ec4899",
  "description": "Celebrate with perfect festival combos for Diwali, Holi, Christmas, and more!",
  "icons": [
     "src": "/images/icon-192.png",
    "sizes": "192x192",
    "type": "image/png"
   },
   {
     "src": "/images/icon-512.png",
    "sizes": "512x512",
     "type": "image/png"
   }
  ],
  "screenshots": [
     "src": "/images/color.webp",
     "type": "image/webp",
    "sizes": "1280x720"
   },
   {
     "src": "/images/diwalisweets.webp",
     "type": "image/webp",
    "sizes": "800x600"
   },
```

```
{
    "src": "/images/holicolors.webp",
    "type": "image/webp",
    "sizes": "800x600"
    },
    {
        "src": "/images/christmas.webp",
        "type": "image/webp",
        "sizes": "800x600"
    }
]
```

Output:



Popular Festival Combos

Discover our carefully curated combo packs for your favorite festivals. Everything you need for a perfect celebration!

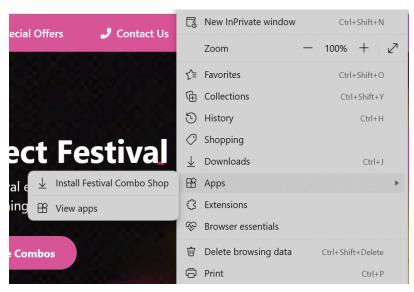


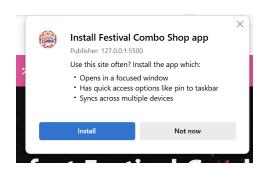
Why Choose Our Festival Combos?

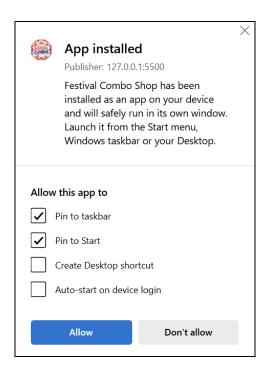
Experience the convenience and joy of our carefully curated festival combinations

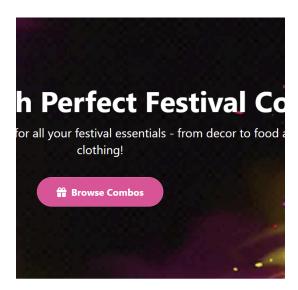














Conclusion:

By configuring the manifest.json correctly, the E-commerce web app becomes installable and behaves more like a native mobile application. This improves user engagement and accessibility, especially for mobile users. I faced errors while configuring the icons but is was easily solved by changing the width and height of the images.