Practical 7

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Class: D15B Roll No.: 44

Aim:

To write meta data of your 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 Netflix clone web application. This file includes details like:

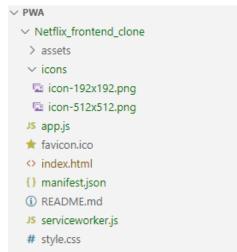
- App name and short name for display
- Start URL, display mode (standalone), background color, and theme color
- A **description** for the app
- A list of **icons** in required formats (PNG, 192x192 and 512x512, with purpose: "any")
- Screenshots of the app to showcase its interface

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:



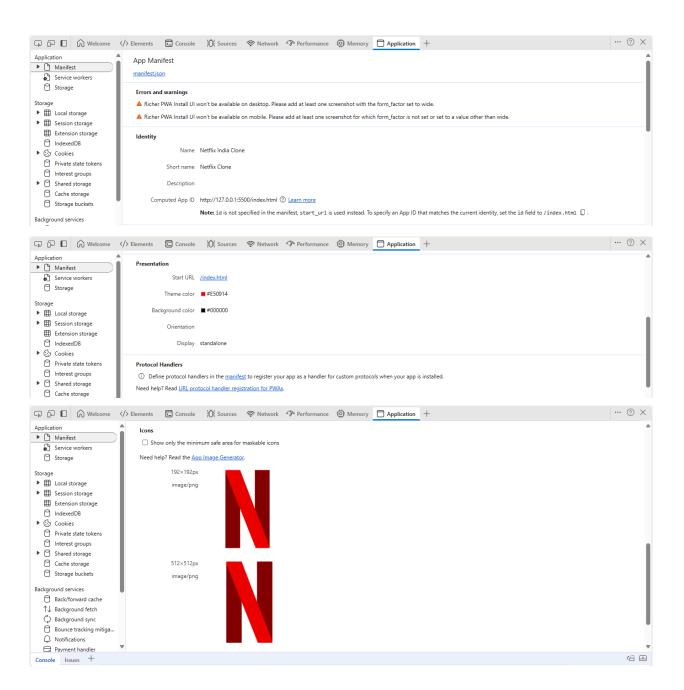
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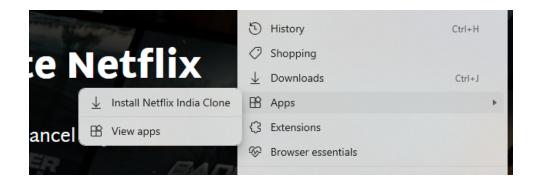
```
Index.html
<!DOCTYPE html>
<html lang="en">
 <head>
  <meta charset="UTF-8" />
  <meta name="viewport" content="width=device-width, initial-scale=1.0" />
  <title>Netflix India - Watch TV Shows Online, Watch Movies Online</title>
  <link rel="stylesheet" href="style.css" />
  <link rel="manifest" href="manifest.json">
 </head>
 <body>
  <div class="main">
   <nav>
    <span
     ><img src="assets/images/logo.svg" alt="logo"
    /></span>
    <div>
     <button class="btn">English</button>
     <button class="btn-red-sm">Sign In</button>
    </div>
   </nav>
   <div class="box"></div>
   <div class="hero">
     <span>Yash Rahate Netflix</span>
     <span>Watch anywhere. Cancel anytime.</span>
     <span
     >Ready to watch? Enter your email to create or restart your
     membership.</span
     <div class="herobtn">
     <input type="text" placeholder="Email address" />
      <button class="btn-red">Get Started &gt;</button>
    </div>
   </div>
Manifest.json
  "name": "Netflix India Clone",
```

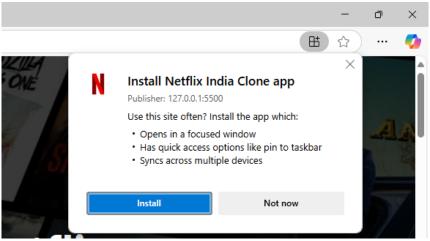
```
"short_name": "Netflix Clone",
 "start_url": "/index.html",
 "display": "standalone",
 "background_color": "#000000",
 "theme_color": "#E50914",
 "icons": [
  {
   "src": "icons/icon-192x192.png",
   "sizes": "192x192",
   "type": "image/png"
  },
   "src": "icons/icon-512x512.png",
   "sizes": "512x512",
   "type": "image/png"
  }
}
```

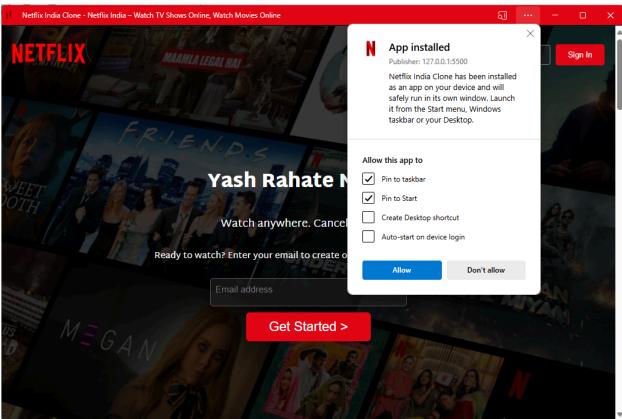
Output:













Conclusion:

By configuring the manifest.json correctly, the Netflix clone 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.