

Experiment No. 7

Aim:- To write meta data of your News-App PWA

Theory:-

Progressive Web App:-

Progressive Web App (PWA) is a type of web application that combines the best features of both web and mobile apps to deliver a fast, reliable, and engaging user experience. PWAs use modern web technologies like service workers, manifests, and caching to enable offline access, background sync, and push notifications. They are responsive, work across all devices, and can be installed on the user's home screen without needing an app store. PWAs load quickly, even on slow networks, and offer app-like performance and navigation. Overall, PWAs enhance user engagement while reducing development and maintenance effort.

Manifest.json:-

manifest.json is a configuration file used in Progressive Web Apps (PWAs) that provides essential metadata about the web application. It defines how the app should appear and behave when installed on a user's device. Key properties in the file include the app's name, short name, icons, start URL, display mode (like standalone or fullscreen), background color, and theme color. This file helps the browser create an app-like experience by controlling the appearance and launch behavior of the PWA. The manifest.json is a crucial part of making a web app installable and giving it a native-like feel on mobile and desktop devices.

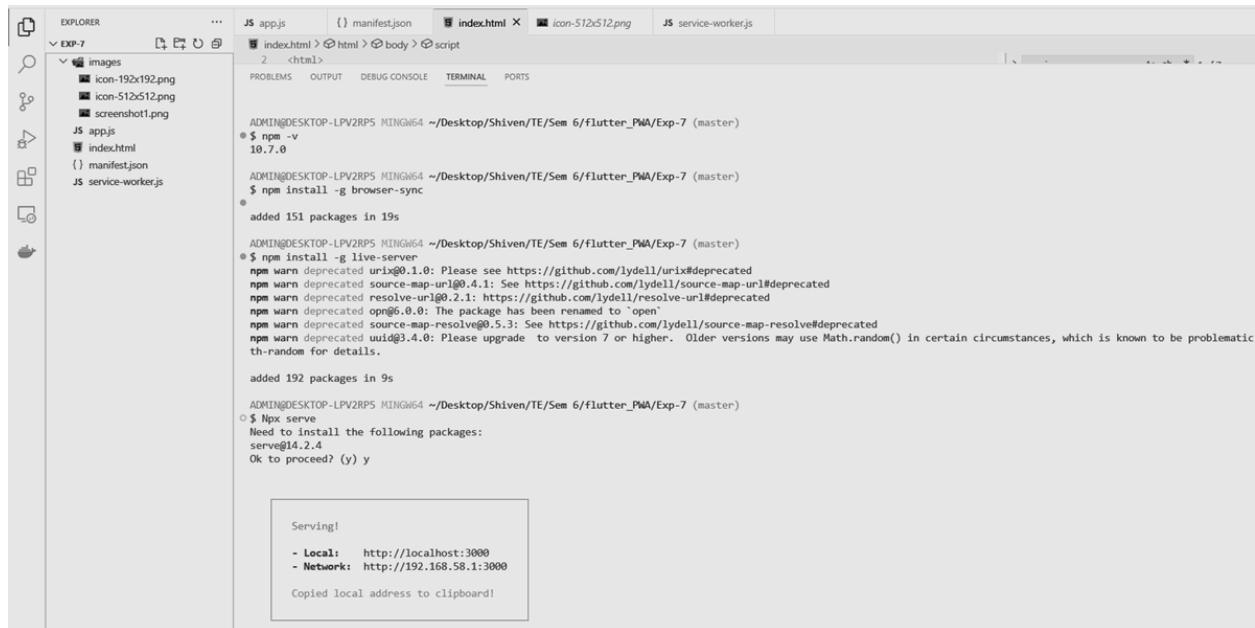
Code:-

Manifest.json

```
{  
  "name": "PWA Tutorial",  
  "short_name": "PWA",  
  "start_url": "index.html",  
  "display": "standalone",  
  "background_color": "#5900b3",  
  "theme_color": "black",  
}
```

```
"scope": ".",
"description": "This is a PWA tutorial.",
"icons": [
  {
    "src": "images/icon-192x192.png",
    "sizes": "192x192",
    "type": "image/png"
  },
  {
    "src": "images/icon-512x512.png",
    "sizes": "512x512",
    "type": "image/png"
  }
],
"screenshots": [
  {
    "src": "images/screenshot1.png",
    "sizes": "1200x800",
    "type": "image/png",
    "form_factor": "wide"
  },
  {
    "src": "images/screenshot1.png",
    "sizes": "1200x800",
    "type": "image/png"
  }
]
}
```

Output:-



```
ADMIN@DESKTOP-LPV2RPS MINGW64 ~/Desktop/Shiven/TE/Seem 6/flutter_PWA/Exp-7 (master)
$ npm -v
10.7.0

ADMIN@DESKTOP-LPV2RPS MINGW64 ~/Desktop/Shiven/TE/Seem 6/flutter_PWA/Exp-7 (master)
$ npm install -g browser-sync

added 151 packages in 19s

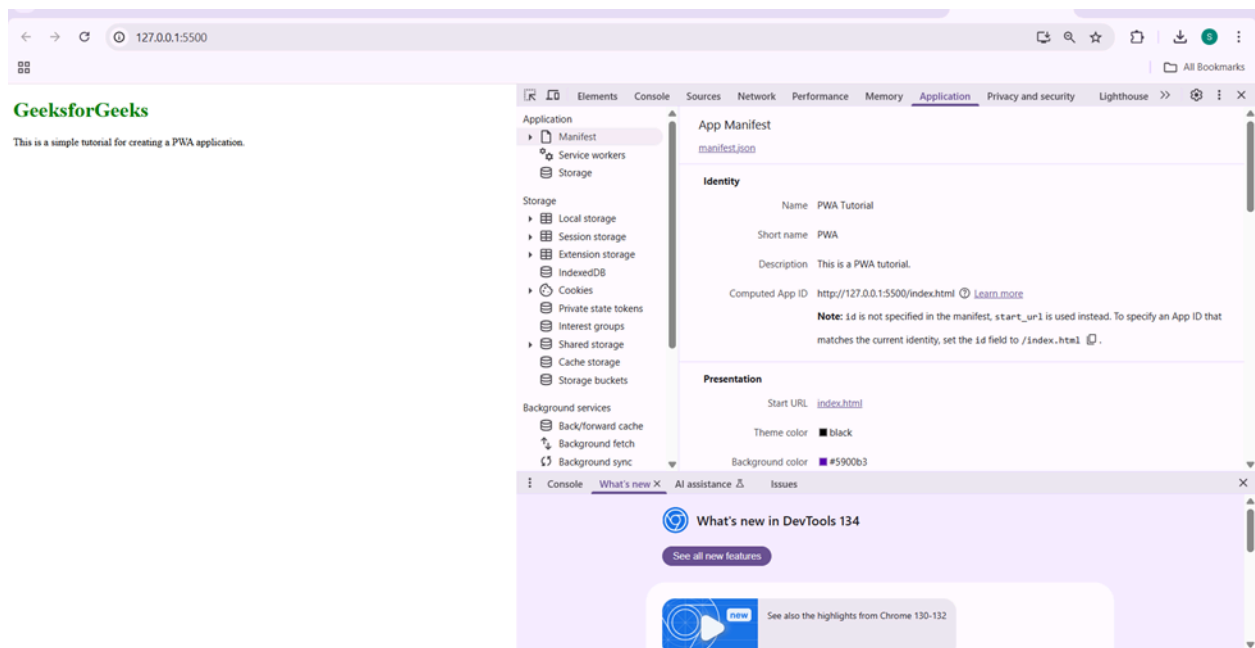
ADMIN@DESKTOP-LPV2RPS MINGW64 ~/Desktop/Shiven/TE/Seem 6/flutter_PWA/Exp-7 (master)
$ npm install -g live-server

npm warn deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecated
npm warn deprecated source-map-url@0.4.1: See https://github.com/lydell/source-map-url#deprecated
npm warn deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprecated
npm warn deprecated opn@6.0.0: The package has been renamed to 'open'
npm warn deprecated source-map-resolve@0.5.3: See https://github.com/lydell/source-map-resolve#deprecated
npm warn deprecated uuid@3.4.0: Please upgrade to version 7 or higher. Older versions may use Math.random() in certain circumstances, which is known to be problematic
th-random for details.

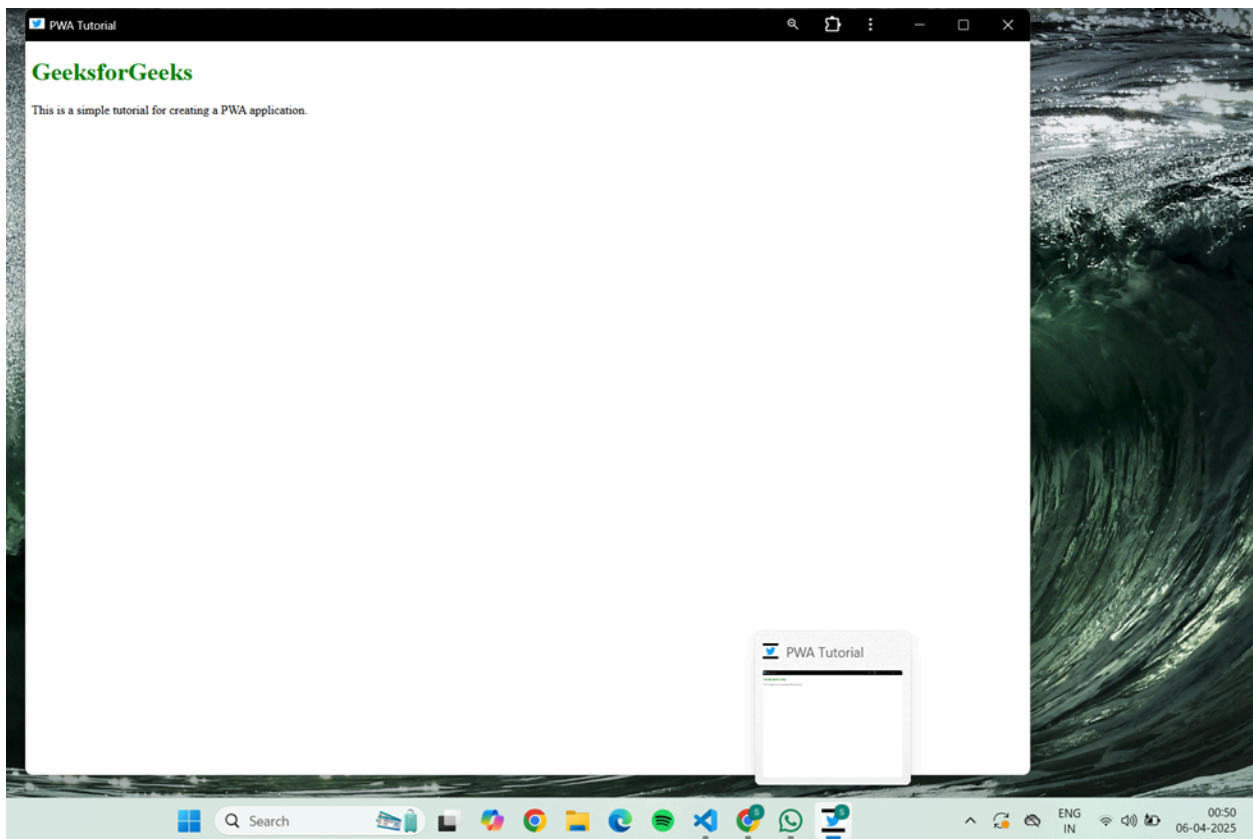
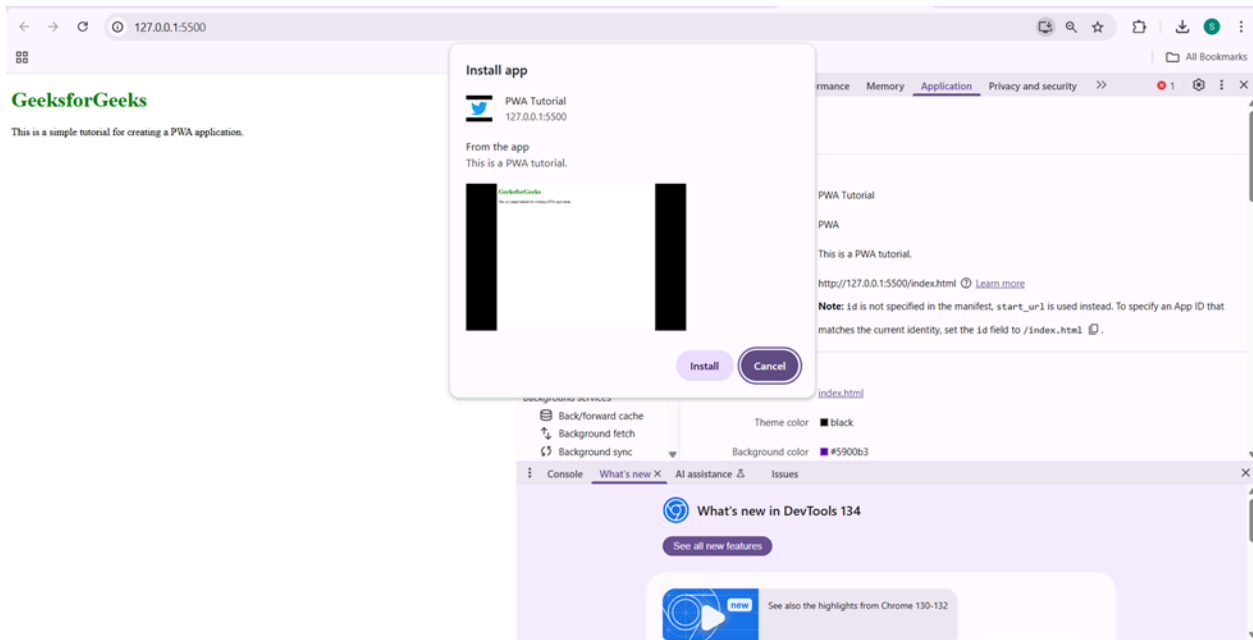
added 192 packages in 9s

ADMIN@DESKTOP-LPV2RPS MINGW64 ~/Desktop/Shiven/TE/Seem 6/flutter_PWA/Exp-7 (master)
$ npm run serve
Need to install the following packages:
serve@14.2.4
Ok to proceed? (y) y

Serving!
- Local: http://localhost:3000
- Network: http://192.168.58.1:3000
Copied local address to clipboard!
```



Here this is the Manifest.json which shows the information about the app.



Conclusion:-

In this experiment, we focused on writing and configuring the metadata for the News-App PWA using the manifest.json file. This file plays a vital role in defining how the app appears and behaves when installed on a user's device. By specifying key attributes such as the app's name, icons, theme color, and display mode, we ensured that the app provides a consistent and immersive experience. The manifest allows the browser to present the app in a more native-like manner, enhancing usability and engagement. This step is essential for making the PWA installable and visually appealing across various devices. Overall, the experiment helped reinforce the importance of metadata in creating a complete and professional Progressive Web App.