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Experiment No. 7

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

THEORY

Regular Web App

A regular web app is a website that is designed to be accessible on all mobile devices such that the content gets fit as per the device screen. It is designed using a web technology stack (HTML, CSS, JavaScript, Ruby, etc.) and operates via a browser. They offer various native-device features and functionalities. However, it entirely depends on the browser the user is using. In other words, it might be possible that you can access a native-device feature on Chrome but not on Safari or Mozilla Firefox because the browsers are incompatible with that feature.

Progressive Web App

Progressive Web App (PWA) is a regular web app, but some extras enable it to deliver an excellent user experience. It is a perfect blend of desktop and mobile application experience to give both platforms to the end-users.

Difference between PWAs vs. Regular Web Apps:

A Progressive Web is different and better than a Regular Web app with features like:

1. Native Experience
2. Ease of Access
3. Faster Services
4. Engaging Approach
5. Updated Real-Time Data Access
6. Discoverable
7. Lower Development Cost

CODE:-

//Manifest.json :

```
{
   "name":"Language Tutorl",
   "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"
    }
]
}
```

//**serviceworker.js**

```
var staticCacheName = "pwa";
self.addEventListener("install", function (e) {
e.waitUntil(
    caches.open(staticCacheName).then(function (cache) {
    return cache.addAll(["/"]);
    })
);
});
self.addEventListener("fetch", function (event) {
console.log(event.request.url);
event.respondWith(
    caches.match(event.request).then(function (response) {
    return response || fetch(event.request);
    })
);
});
```

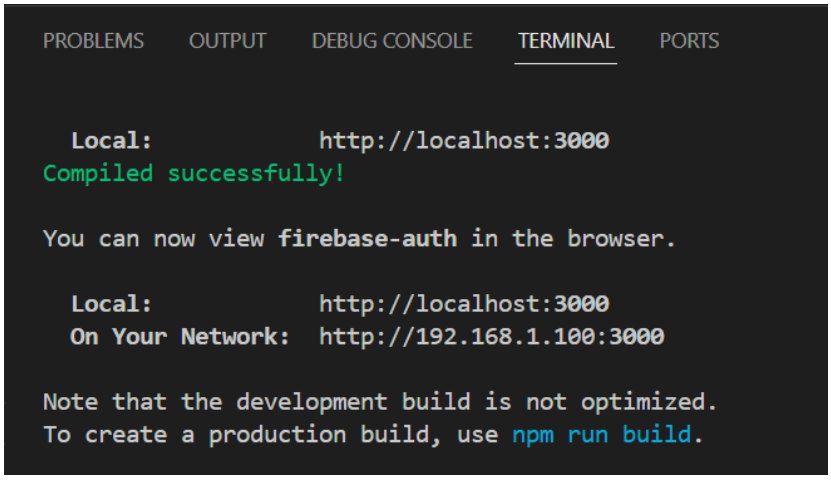
//**Index.html**

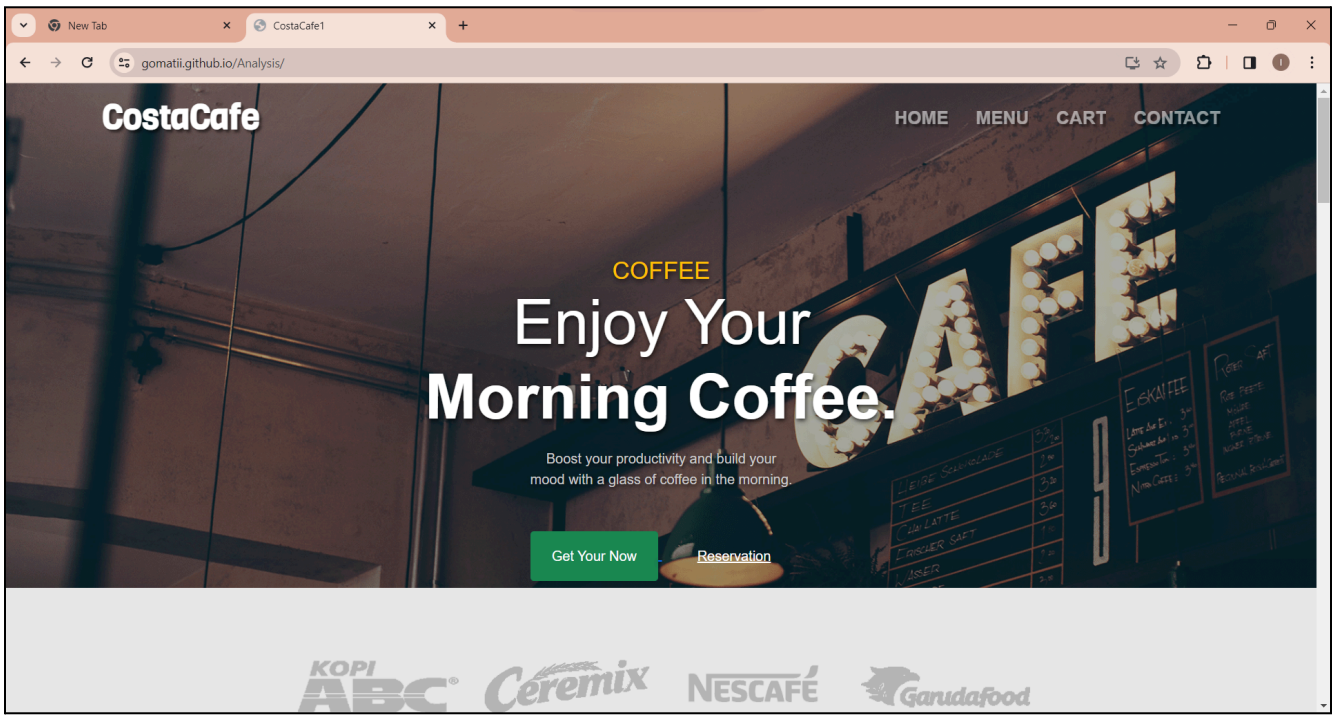
```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8" />
    <link rel="icon" href="%PUBLIC_URL%/favicon.ico" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <meta name="theme-color" content="#000000" />
    <meta
      name="description"
      content="Web site created using create-react-app"
    />
    <link rel="apple-touch-icon" href="%PUBLIC_URL%/logo192.png" />
    <link rel="manifest" href="%PUBLIC_URL%/manifest.json" />
<meta name="apple-mobile-web-app-status-bar" content="#aa7700">
<meta name="theme-color" content="black">
```

```
<!-- Manifest File link -->
<link rel="manifest" href="manifest.json">
   <title>React App</title>
  </head>
  <body>
   <noscript>You need to enable JavaScript to run this app.</noscript>
   <div id="root"></div>
  </body>

  <script>
   // Register the Service Worker
   async function registerSW() {
    // Check if browser supports Service Worker
    if ('serviceWorker' in navigator) {
     try {
      // Register the Service Worker named 'serviceworker.js'
      await navigator.serviceworker.register('serviceworker.js');
     }
     catch (e) {
      // Log error message if registration fails
      console.log('SW registration failed');
     }
    }
   }
  </script>

</html>
```

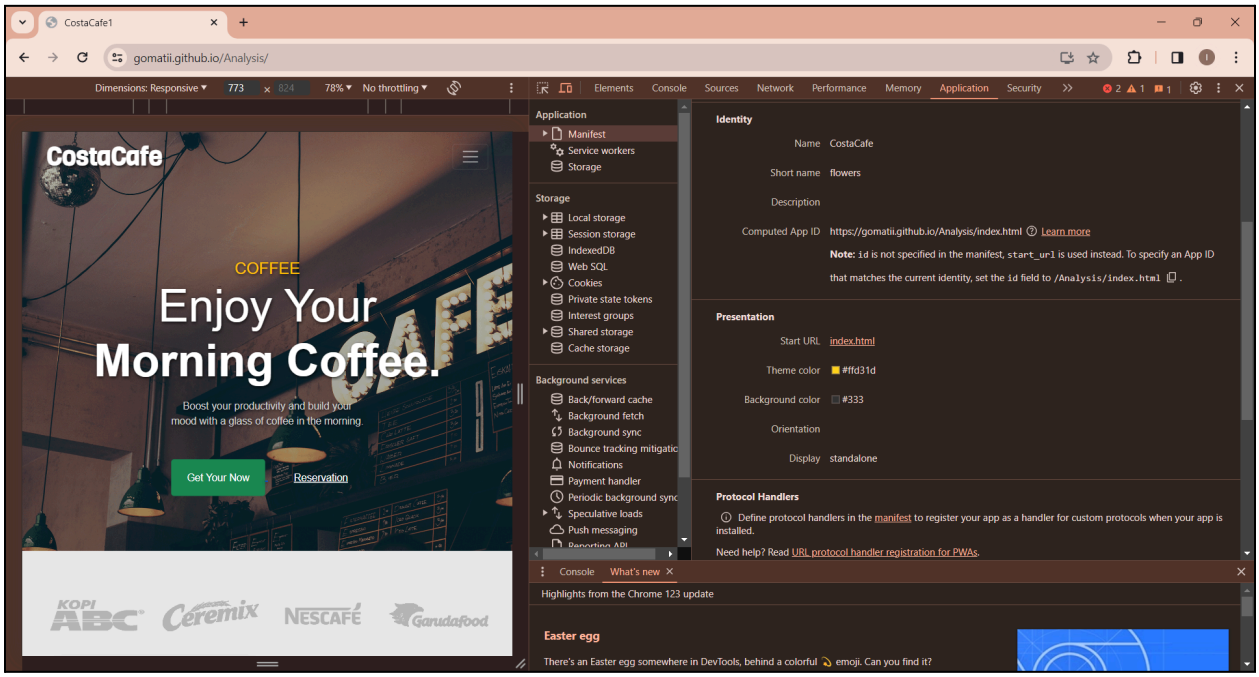
OUTPUT :

//Open folder in VS code and run the website.

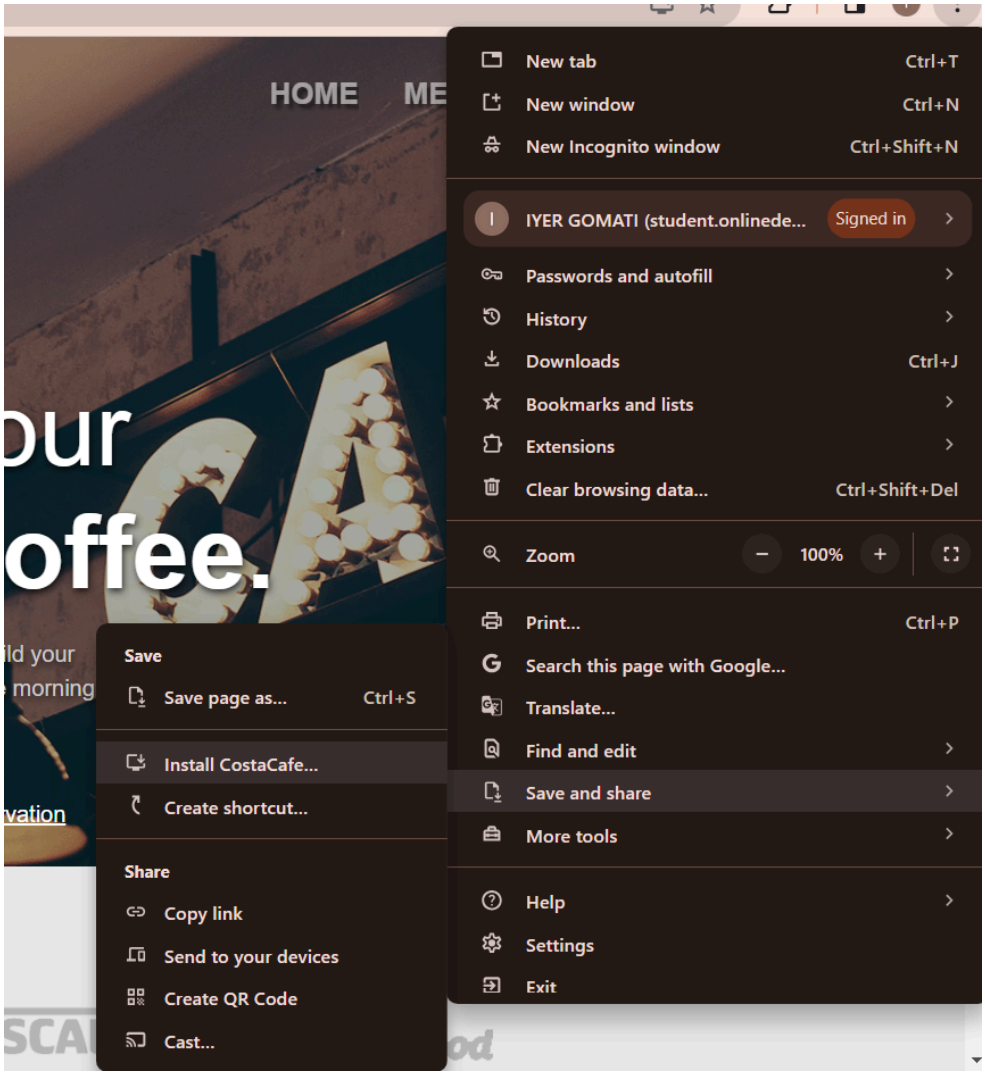




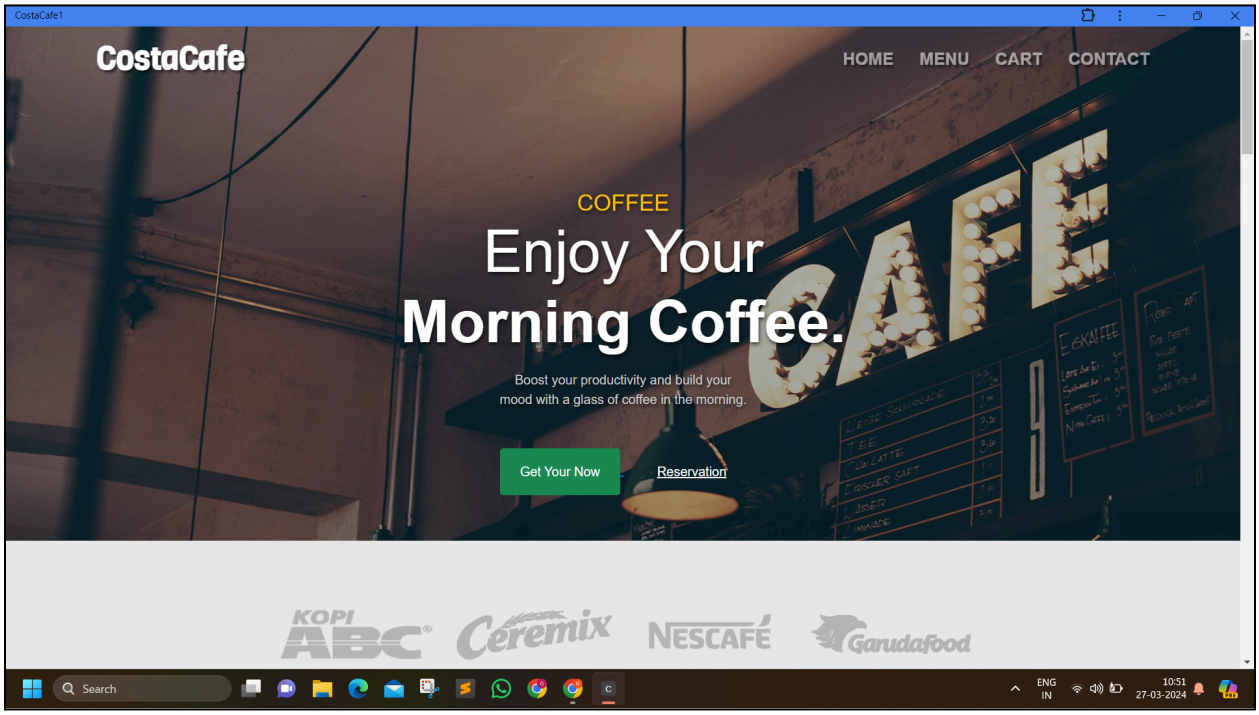
//open Developer tools options -> Applications



//click on 3 dots on top right corner of browser from app option install this site as an app



//App icon will appear at the bottom



Conclusion:-

Hence, we learnt how to write a metadata of our E-commerce website PWA in a Web App Manifest File to enable add to homescreen feature.