

## Department of Information Technology

**Academic Year:** 2022-23

**Semester:** VI

**Class / Branch / Div:** TE- IT A/B/C

**Subject:** MAD & PWA Lab

**Name of Instructor:** Prof. Manjusha Kashilkar

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**Student ID:** 22104186

**Roll No.** 17

**Date of Submission:** 07/04/25

### Experiment No.:9

**Aim:** To Construct meta data for PWA in a Web app manifest file to enable “add to homescreen feature”

**Prerequisites:** HTML, JavaScript, JSON.

**Software:** VS code, Browser.

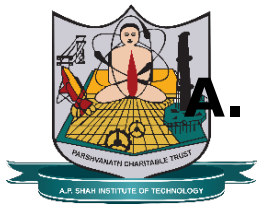
**Code:**

**Index.html**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>E-Commerce PWA</title>

  <!-- jQuery Mobile CSS & JS -->
  <link rel="stylesheet"
href="https://code.jquery.com/mobile/1.4.5/jquery.mobile-1.4.5.min.css">
  <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
  <script src="https://code.jquery.com/mobile/1.4.5/jquery.mobile-
1.4.5.min.js"></script>

  <!-- PWA Manifest -->
  <link rel="manifest" href="manifest.json">
</head>
<body>
```



<!-- Home Page -->

<div data-role="page" id="home">

<div data-role="header">

<h1>ShopEasy</h1>

<a href="#cart" class="ui-btn ui-btn-right ui-icon-shopping-cart ui-btn-icon-notext"></a>

</div>

<div data-role="content">

<ul data-role="listview" data-inset="true">

<li><a href="#product1"> Smartphone</a></li>

</ul>

</div>

<div data-role="footer">

<h4>&copy; 2025 ShopEasy</h4>

</div>

</div>

<!-- Product Page -->

<div data-role="page" id="product1">

<div data-role="header">

<a href="#home" class="ui-btn ui-icon-back ui-btn-icon-left">Back</a>

<h1>Smartphone</h1>

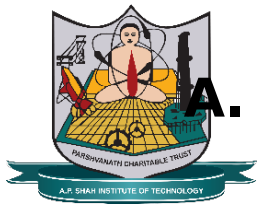
</div>

<div data-role="content">



<h3>Price: \$699</h3>

<button class="add-to-cart ui-btn ui-btn-b">Add to Cart</button>



&lt;/div&gt;

&lt;/div&gt;

&lt;!-- Shopping Cart Page --&gt;

&lt;div data-role="page" id="cart"&gt;

&lt;div data-role="header"&gt;

&lt;h1&gt;Shopping Cart&lt;/h1&gt;

&lt;/div&gt;

&lt;div data-role="content"&gt;

&lt;ul id="cart-items" data-role="listview"&gt;&lt;/ul&gt;

&lt;a href="#" class="ui-btn ui-btn-b"&gt;Checkout&lt;/a&gt;

&lt;/div&gt;

&lt;/div&gt;

&lt;!-- Custom Script --&gt;

&lt;script src="js/script.js"&gt;&lt;/script&gt;

&lt;/body&gt;

&lt;/html&gt;

**manifest.json**

```
{  
  "name": "ShopEasy",  
  "short_name": "ShopEasy",  
  "start_url": "/index.html",  
  "display": "standalone",  
  "background_color": "#ffffff",  
  "theme_color": "#2196F3",  
  "icons": [  

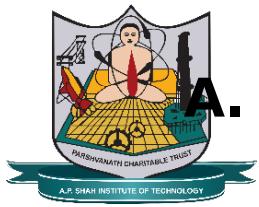
```



```
{  
  "src": "icon.png",  
  "sizes": "192x192",  
  "type": "image/png"  
}  
]  
}
```

**sw.js**

```
self.addEventListener('install', event => {  
  event.waitUntil(  
    caches.open('shop-cache').then(cache => {  
      return cache.addAll([  
        '/',  
        '/index.html',  
        '/manifest.json',  
        '/images/smartphone.jpg',  
        '/js/script.js'  
      ]);  
    })  
  );  
});  
  
self.addEventListener('fetch', event => {  
  event.respondWith(  
    caches.match(event.request).then(response => {  
      return response || fetch(event.request);  
    })  
  );  
});
```



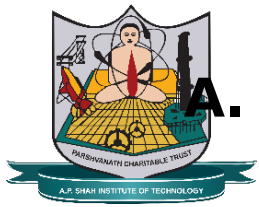
## script.js

```
$(document).ready(function () {  
    $(".add-to-cart").click(function () {  
        $("#cart-items").append("<li>Smartphone - $699</li>").listview("refresh");  
        alert("Item added to cart!");  
    });  
});
```

## icon.png



## smartphone.jpeg

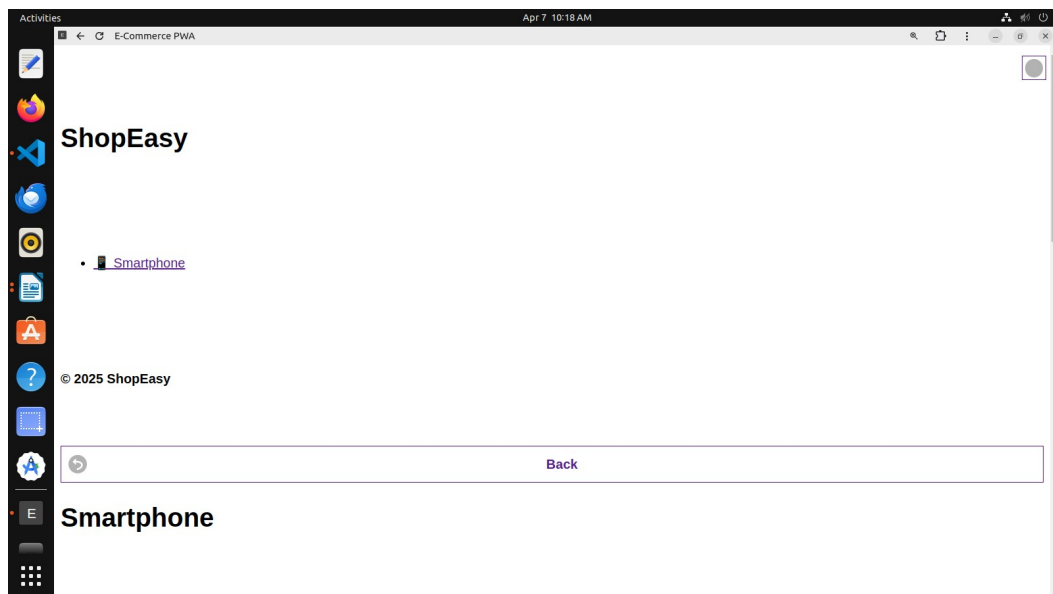


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Output:





**Conclusion:** In this experiment, we created a manifest file to enable the “Add to Home Screen” feature in a PWA. We also used a service worker to enable offline access and caching. This helped us understand how to make web apps more installable and user-friendly.