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Batch: E3

Experiment No: 10

AIM: To study and implement deployment of Ecommerce PWA to GitHub Pages

THEORY:

Add to Home screen

Add to Home screen (or A2HS for short) is a feature available in modern browsers that allows a user to "install" a web app, ie. add a shortcut to their Home screen representing their favorite web app (or site) so they can subsequently access it with a single tap. This guide explains how A2HS is used, and what you need to do as a developer to allow your users to take advantage of it.

To enable your app to be added to a **Home screen**, it needs the following:

- To be served over HTTPs — the web is increasingly being moved in a more secure direction, and many modern web technologies (A2HS included) will work only on secure contexts.
- To have a manifest file with the correct fields filled in, linked from the HTML head.
- To have an appropriate icon available for displaying on the Home screen.
- Chrome additionally requires the app to have a service worker registered (e.g., so it can function when offline).

Manifest to make the app installable:

The manifest for our sample app looks like this:

```
{
  "short_name": "SIES-PWA",
  "name": "PWA Lab Manual",
  "icons": [
    {
     "src": "assets/icons/icon-48x48.png",
     "sizes": "48x48",
     "type": "image/png",
     "purpose": "any"
     },
     {
     "src": "assets/icons/icon-72x72.png",
     "sizes": "72x72",
     "type": "image/png",
     "purpose": "any"
     },
     {
     "src": "assets/icons/icon-96x96.png",
     "sizes": "96x96",
      "type": "image/png",
      "purpose": "any"
      },
      {
      "src": "assets/icons/icon-128x128.png",
      "sizes": "128x128",
      "type": "image/png",
      "purpose": "any"
      },
      {
      "src": "assets/icons/icon-144x144.png",
      "sizes": "144x144",
      "type": "image/png",
      "purpose": "any"
      }
  ],
 "id": "/?source=pwa",
 "start_url": "/?source=pwa",
 "background_color": "#3367D6",
 "display": "standalone",
 "scope":  "/",
 "theme_color": "#3367D6",
 "shortcuts": [
   {
     "name": "PWA Lab Manual 1",
     "short_name": "PWA1",
     "description": "PWA Lab 1",
     "url": "?source=pwa",
     "icons": [{ "src": "assets/icons/icon-144x144.png",
         "sizes": "144x144" }]
   },
   {
     "name": "PWA Lab Manual 2",
     "short_name": "PWA2",
     "description": "PWA Lab 2",
     "url": "?source=pwa",
     "icons": [{ "src": "assets/icons/icon-144x144.png",
         "sizes": "144x144" }]
   }
 ],
 "description": "PWA Lab ",
 "screenshots": [
   {
     "src": "assets/icons/icon-512x512.png",
     "sizes": "512x512",
     "type": "image/png"
   }    ]  }
```

As shown in the above manifest listing, we are including a 192 x 192 px icon for use in our app. You can include more sizes if you want; Android will choose the most appropriate size for each different use case.The type member in each icon's object specifies the icon's mimetype, so the browser can quickly read what type the icon is, and then ignore it and move to a different icon if it doesn't support it.

Link the HTML to the manifest

To finish setting up your manifest, you need to reference it from the HTML of your application's home page:

```
<link rel="manifest" href="manifest.webmanifest">
<head>
         <meta charset="UTF-8">
         <meta http-equiv="X-UA-Compatible" content="IE=edge">
         <meta name="viewport" content="width=device-width, initial-scale=1.0">
         <title>PWA Demo</title>
         <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css"
         rel="stylesheet"
         integrity="sha384-1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3"
         crossorigin="anonymous">
          <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"
                 integrity="sha384-ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p"
         crossorigin="anonymous"></script>
         <linkrel="manifest" href="manifest.webmanifest">
         <script src="sw.js"></script>
         </head>
```

Refer https://github.com/bushsk/bushsk.github.io/blob/main/manifest.webmanifest

Service worker to make your site available offline:

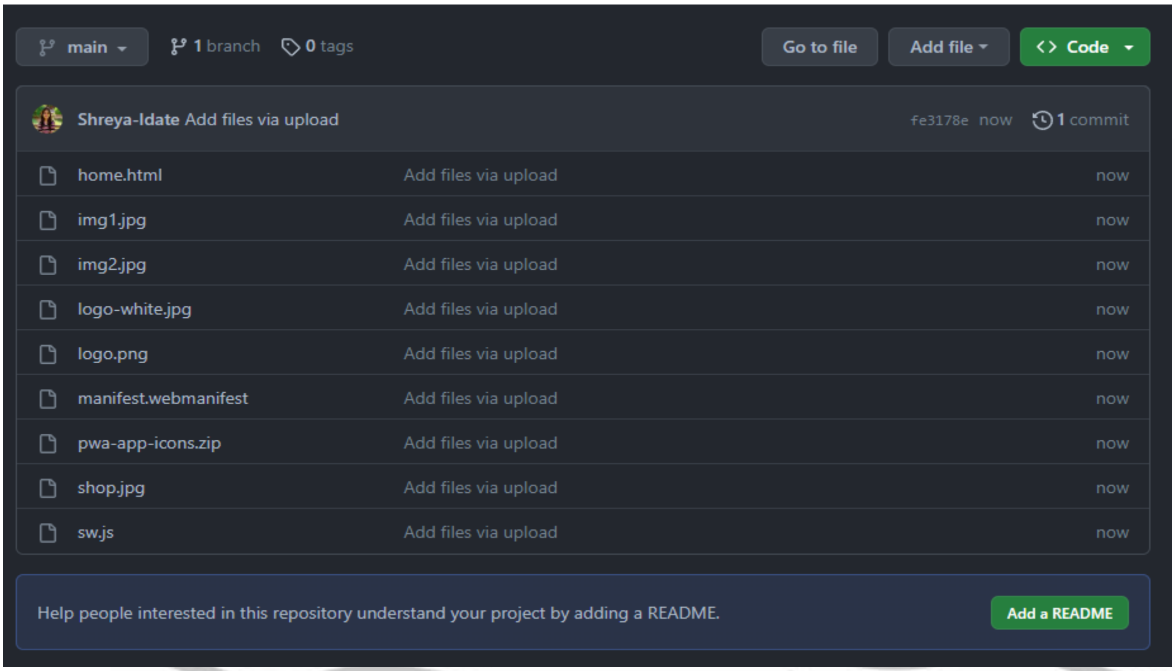
The `sw.js` file is the ServiceWorker that defines which of the files in the application should become available offline.

```
if ('serviceWorker' in navigator) {
window.addEventListener('load', function () {
navigator.serviceWorker.register('/sw.js', { scope: "/" }).then(function (registration) {
                // Registration was successful
console.log('ServiceWorker registration successful with scope: ', registration.scope);
            }, function (err) {
                // registration failed :(
console.log('ServiceWorker registration failed: ', err);
            });
        })
    }
// The version of the cache. Every time you change any of the filesyou need to change
this version (version_01, version_02…). If you don't change the version, the service
worker will give yourusers the old files!
var CACHE_NAME = 'my-site-cache-v1';
```

```
// The files to make available for offline use. make sure to add others to this list
varurlsToCache = [
    '/',
    'index.html',    ];
```

Refer https://github.com/bushsk/bushsk.github.io/blob/main/sw.js

Step 1: Push your project on to GitHub.

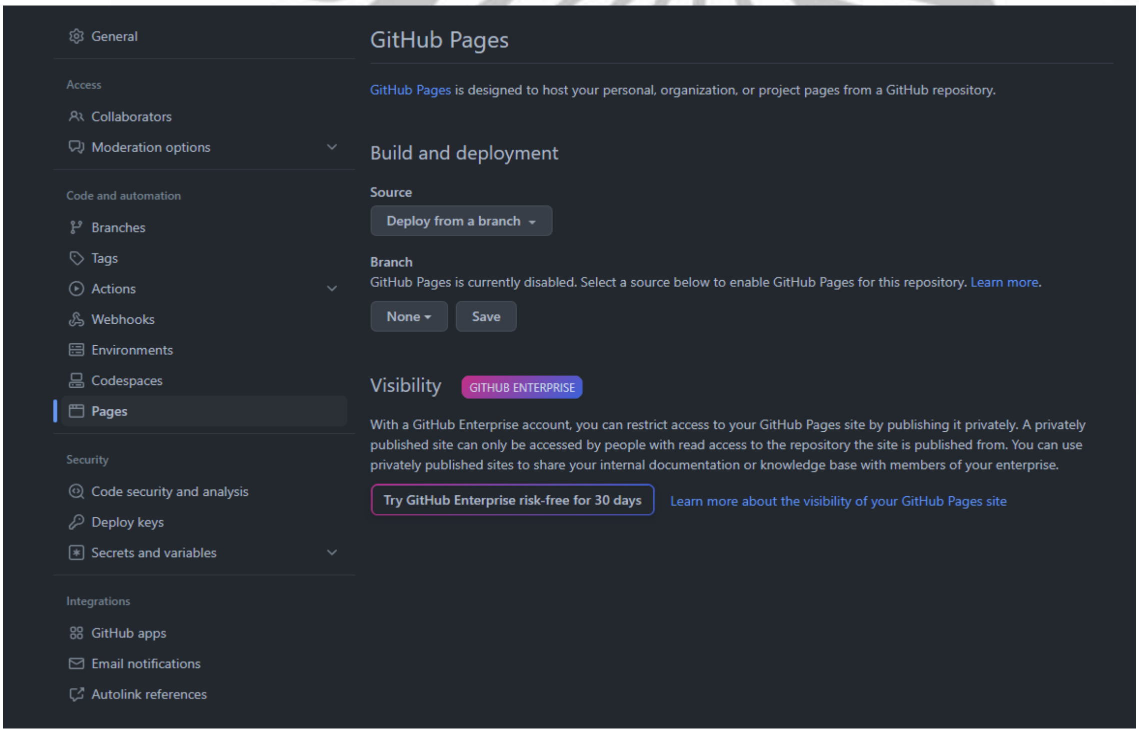


Shreya-ldate Add files via upload fe3178e now 1 commit

home.html Add files via upload now
img1.jpg Add files via upload now
img2.jpg Add files via upload now
logo-white.jpg Add files via upload now
logo.png Add files via upload now
manifest.webmanifest Add files via upload now
pwa-app-icons.zip Add files via upload now
shop.jpg Add files via upload now
sw.js Add files via upload now

Help people interested in this repository understand your project by adding a README.

Step 2: In the settings of this repository `PWA_Demo`, choose to publish the `main` branch as a GitHub page as shown in the following screenshot.



GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Build and deployment

Source

Deploy from a branch

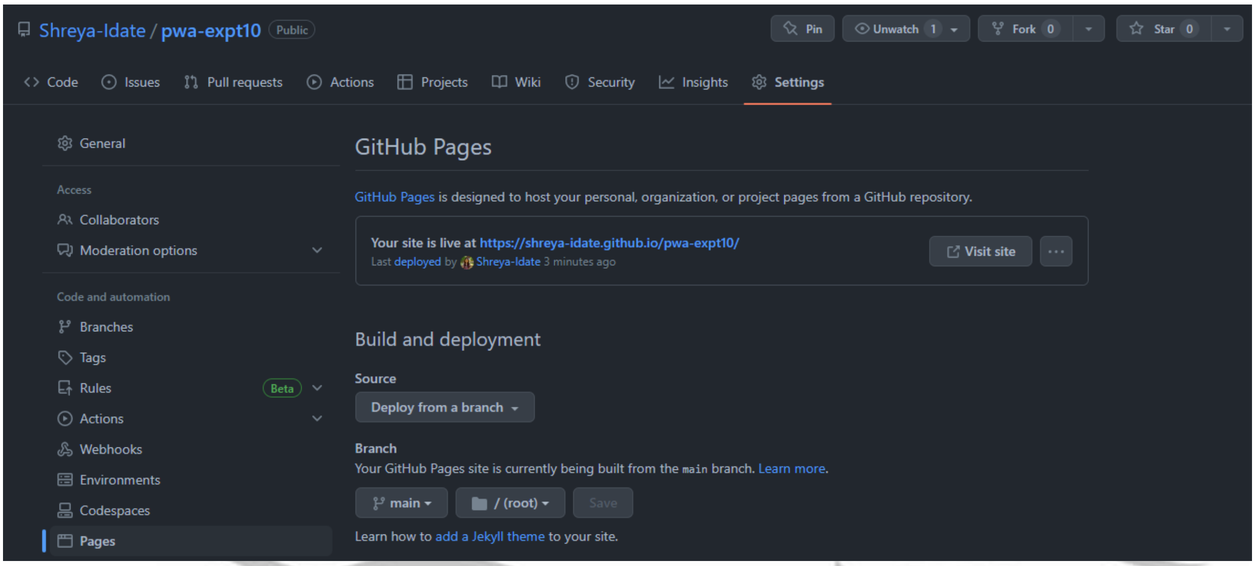
Branch

GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository. Learn more.

None Save

Visibility GITHUB ENTERPRISE

With a GitHub Enterprise account, you can restrict access to your GitHub Pages site by publishing it privately. A privately published site can only be accessed by people with read access to the repository the site is published from. You can use privately published sites to share your internal documentation or knowledge base with members of your enterprise.



GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Your site is live at https://shreya-idate.github.io/pwa-expt10/
Last deployed by Shreya-Idate 3 minutes ago

Build and deployment

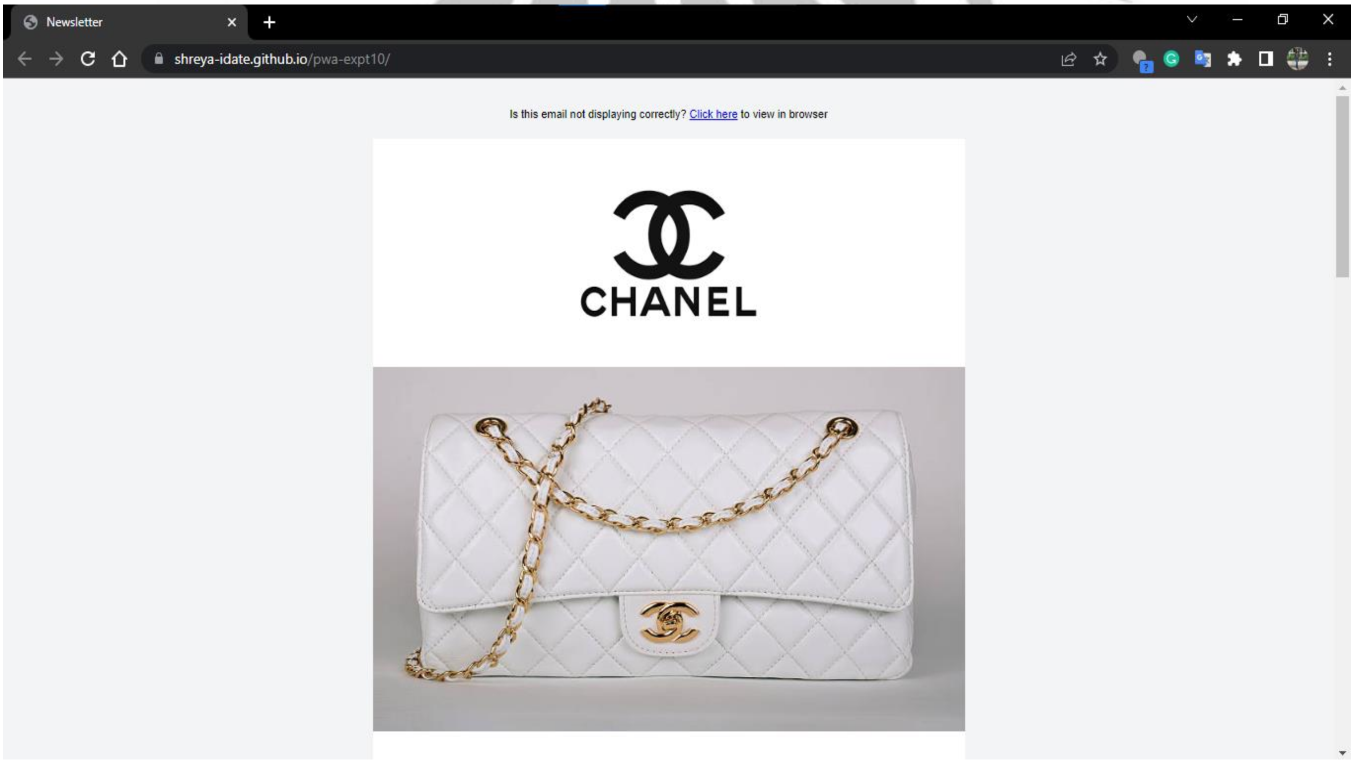
Source
Deploy from a branch

Branch
Your GitHub Pages site is currently being built from the `main` branch. Learn more.

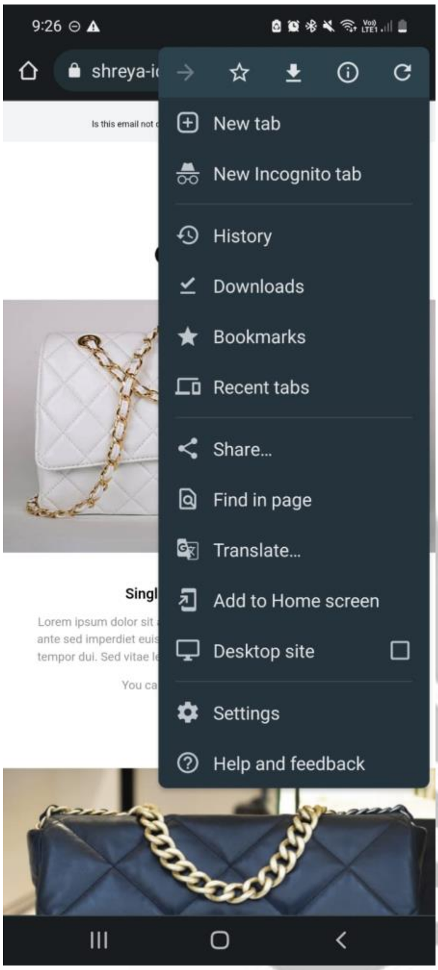
main / (root) Save

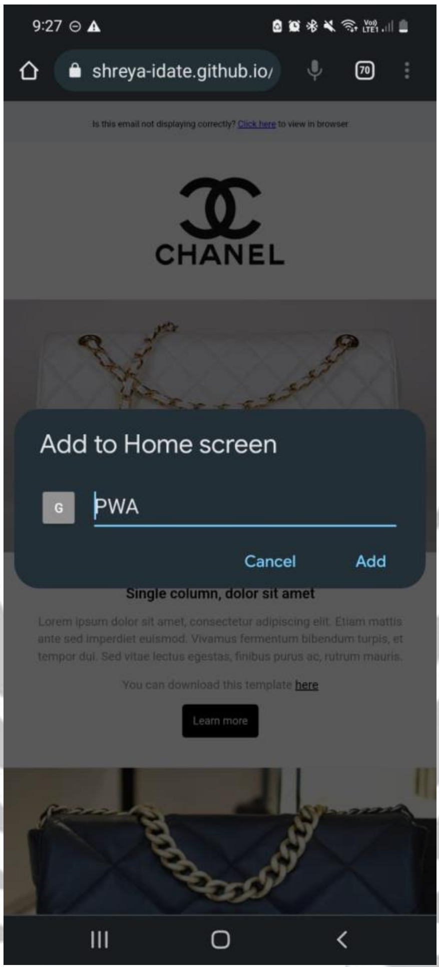
Learn how to add a Jekyll theme to your site.

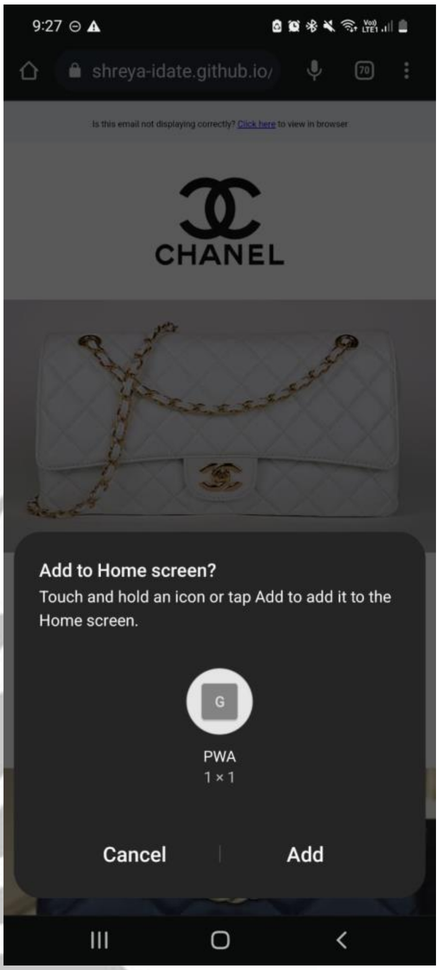
This means that this app is now available at https://shreya-idate.github.io/. Every time we publish to the `main`branch, it triggers an action and the page is generated.



Is this email not displaying correctly? Click here to view in browser

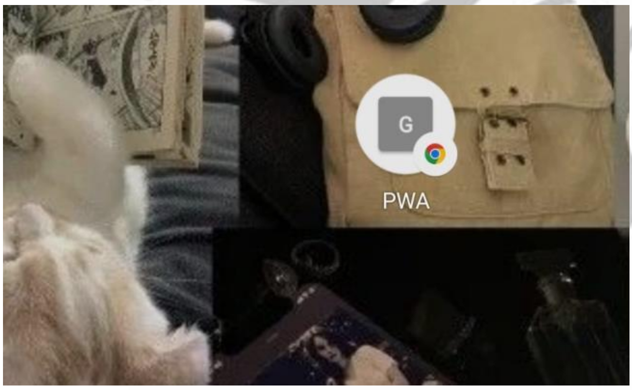



9:27
shreya-idate.github.io/
Is this email not displaying correctly? Click here to view in browser
CHANEL
Add to Home screen
G
PWA
Cancel
Add
Single column, dolor sit amet
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam mattis ante sed imperdiet euismod. Vivamus fermentum bibendum turpis, et tempor dui. Sed vitae lectus egestas, finibus purus ac, rutrum mauris.
You can download this template here
Learn more

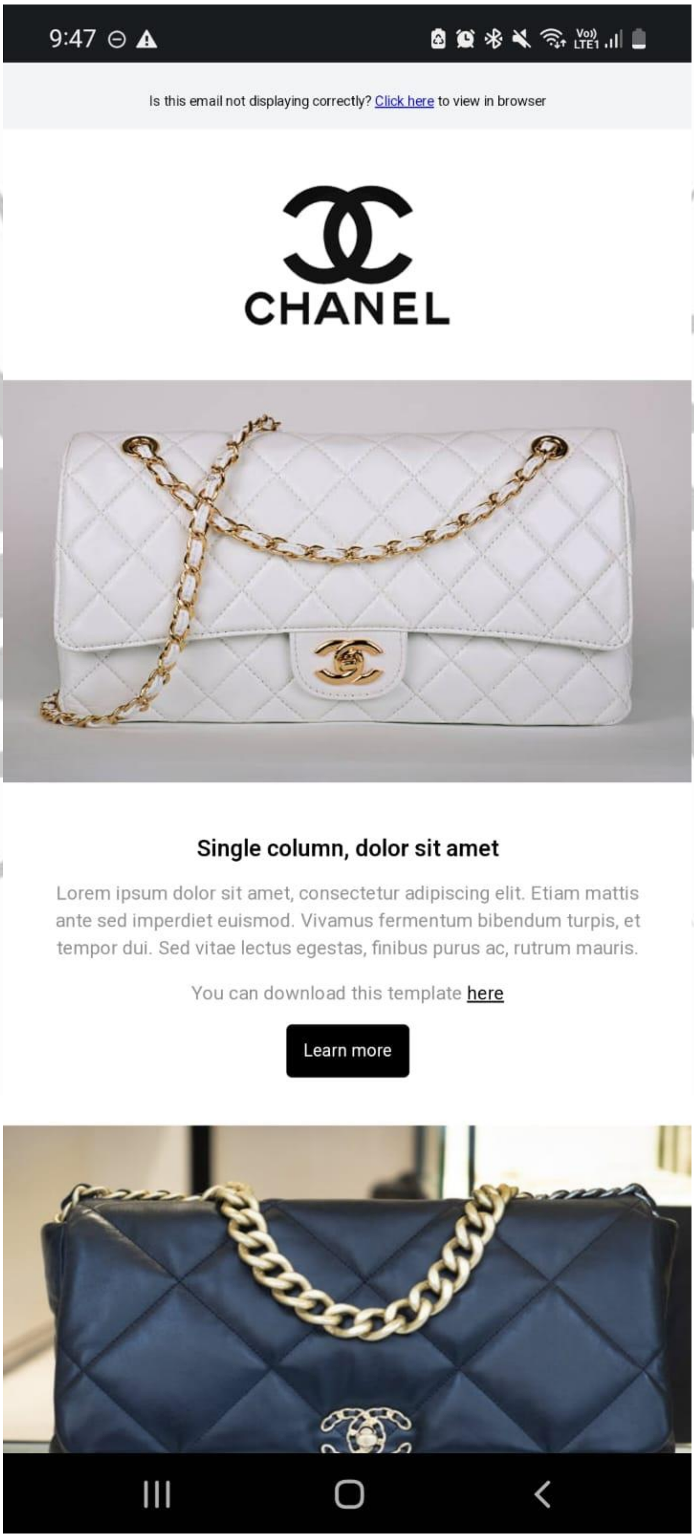

Add to Home screen?

Touch and hold an icon or tap Add to add it to the Home screen.

9:27
shreya-idate.github.io/
Is this email not displaying correctly? Click here to view in browser
CHANEL
G
PWA
1 × 1
Cancel
Add



Note: After A2HS and launching your app, if your webpage / website doesn’t appear, then rename your Github repository name to as <username.github.io> and pull down to refresh.



9:47

Is this email not displaying correctly? Click here to view in browser

CHANEL

Single column, dolor sit amet

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam mattis ante sed imperdiet euismod. Vivamus fermentum bibendum turpis, et tempor dui. Sed vitae lectus egestas, finibus purus ac, rutrum mauris.

You can download this template here

Conclusion: We have successfully implemented deployment of Ecommerce PWA to GitHub Pages.