

Experiment 10

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

Theory:

GitHub Pages

Public web pages are freely hosted and easily published. Public webpages hosted directly from your GitHub repository. Just edit, push, and your changes are live.

GitHub Pages provides the following key features:

1. Blogging with Jekyll
2. Custom URL
3. Automatic Page Generator

Reasons for favoring this over Firebase:

1. Free to use
2. Right out of github
3. Quick to set up

GitHub Pages is used by Lyft, CircleCI, and HubSpot.

GitHub Pages is listed in 775 company stacks and 4401 developer stacks.

Pros

1. Very familiar interface if you are already using GitHub for your projects.
2. Easy to set up. Just push your static website to the gh-pages branch and your website is ready.
3. Supports Jekyll out of the box.
4. Supports custom domains. Just add a file called CNAME to the root of your site, add an A record in the site's DNS configuration, and you are done.

Cons

1. The code of your website will be public, unless you pay for a private repository.
2. Currently, there is no support for HTTPS for custom domains. It's probably coming soon though.
3. Although Jekyll is supported, plug-in support is rather spotty.
4. Firebase

The Realtime App Platform. Firebase is a cloud service designed to power real-time, collaborative applications. Simply add the Firebase library to your application to gain access to a shared data structure; any changes you make to that data are automatically synchronized with the Firebase cloud and with other clients within milliseconds.

Some of the features offered by Firebase are:

1. Add the Firebase library to your app and get access to a shared data structure. Any changes made to that data are automatically synchronized with the Firebase cloud and with other clients within milliseconds.
2. Firebase apps can be written entirely with client-side code, update in real-time out-of-the-box, interoperate well with existing services, scale automatically, and provide strong data security.
3. Data Accessibility- Data is stored as JSON in Firebase. Every piece of data has its own URL which can be used in Firebase's client libraries and as a REST endpoint. These URLs can also be entered into a browser to view the data and watch it update in real-time.

Reasons for favoring over GitHub Pages:

1. Realtime backend made easy
2. Fast and responsive

Instacart, 9GAG, and Twitch are some of the popular companies that use Firebase. Firebase has a broader approval, being mentioned in 1215 company stacks & 4651 developers stacks.

Pros

1. Hosted by Google. Enough said.
2. Authentication, Cloud Messaging, and a whole lot of other handy services will be available to you.
3. A real-time database will be available to you, which can store 1 GB of data.
4. You'll also have access to a blob store, which can store another 1 GB of data.
5. Support for HTTPS. A free certificate will be provisioned for your custom domain within 24 hours.

Cons

1. Only 10 GB of data transfer is allowed per month. But this is not really a big problem, if you use a CDN or AMP.
2. Command-line interface only.
3. No in-built support for any static site generator.

Hosted github repo link: https://aakankshasuvarna27.github.io/Hair_Accessories_pwa/

The screenshot shows the GitHub repository settings for 'aakankshasuvama27 / Hair_Accessories_pwa'. The 'Settings' tab is selected, showing the 'GitHub Pages' section. The 'General' tab is also visible on the left sidebar. The 'GitHub Pages' section indicates that the site is live at https://aakankshasuvama27.github.io/Hair_Accessories_pwa/ and was last deployed by 'aakankshasuvama27' 2 minutes ago. The 'Build and deployment' section shows the 'Source' as 'main' and the 'Branch' as 'main'. The 'Security' section indicates that the site was last deployed to the 'github-pages' environment by the 'pages build and deployment' workflow.

The screenshot shows the 'Hair Accessories Store' website. The header includes the store name and navigation links for 'Home', 'Products', and 'Cart'. The main content area displays two product cards. The first card, 'Hair Accessory 1', features a red bow and a description: 'Description of the hair accessory.' with an 'Add to Cart' button. The second card, 'Hair Accessory 2', features a blue scrunchie and a description: 'Description of the hair accessory.' with an 'Add to Cart' button. The footer displays the copyright notice: '© 2024 Hair Accessories Store'.

Conclusion: Thus we successfully used google Lighthouse PWA Analysis Tool for testing the PWA functioning.