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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.

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.

Link for GitHub: https://varunkhubani.github.io/PWA_APP/

GitHub ScreenShots

Step1: Make your GitHub Repository public and push your PWA into the repository

The screenshot shows the GitHub repository page for 'PWA_APP' by VarunKhubani. The repository is public and has 1 commit. The commit message is 'Completed the completed PWA project' and it was pushed 20 minutes ago. The repository contains several files and folders, including 'images', 'product-images', '.DS_Store', 'cart.html', 'homepage.png', 'index.html', 'login.html', 'manifest.json', 'offline.html', 'product.html', 'service-worker.js', 'setting.html', and 'signup.html'. The right sidebar shows the repository's activity, including 0 stars, 1 watching, and 0 forks. The 'Releases' section shows no releases published. The 'Packages' section shows no packages published. The 'Deployments' section shows 1 deployment by 'github-pages' 16 minutes ago. The 'Languages' section shows a bar chart with HTML at 86.3% and JavaScript at 11.8%.

File/Folder	Commit Message	Time
images	Completed the completed PWA project	20 minutes ago
product-images	Completed the completed PWA project	20 minutes ago
.DS_Store	Completed the completed PWA project	20 minutes ago
cart.html	Completed the completed PWA project	20 minutes ago
homepage.png	Completed the completed PWA project	20 minutes ago
index.html	Completed the completed PWA project	20 minutes ago
login.html	Completed the completed PWA project	20 minutes ago
manifest.json	Completed the completed PWA project	20 minutes ago
offline.html	Completed the completed PWA project	20 minutes ago
product.html	Completed the completed PWA project	20 minutes ago
service-worker.js	Completed the completed PWA project	20 minutes ago
setting.html	Completed the completed PWA project	20 minutes ago
signup.html	Completed the completed PWA project	20 minutes ago

Step 2: Go to settings -> pages and choose your root directory and save it

The screenshot shows the GitHub repository settings for 'PWA_APP' under the 'Pages' tab. The left sidebar contains a navigation menu with categories: General, Access, Code and automation, Security, and Integrations. The 'Pages' tab is selected. The main content area is titled 'GitHub Pages' and includes a 'Your site is live at' section with the URL 'https://varunkhubani.github.io/PWA_APP/'. Below this is the 'Build and deployment' section, which shows the 'Source' as 'Deploy from a branch' and the 'Branch' as 'master'. The 'Custom domain' section is also visible. The 'Pages' tab is highlighted in the left sidebar.

Step 3: Now go to your Code and you will see a small circle near your recent commit(Mine is finished deploying so i am getting a tick-mark sign)

The screenshot shows the 'Code' view of the GitHub repository. At the top, there is a commit by 'Varun Khubani' with the message 'Completed the completed PWA project' and a green checkmark icon. Below the commit, there is a file named 'images' with a folder icon. The commit message 'Completed the completed PWA project' is repeated next to the file name.

On clicking Logs of all the deployment is shown for convenience

github.com/VarunKhubani/PWA_APP/actions/runs/8461888672/job/23182386108

VarunKhubani / PWA_APP

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

pages build and deployment #1 Re-run all jobs

Summary

Jobs

- build
- report-build-status
- deploy

Run details

Usage

build

succeeded 15 minutes ago in 21s

Beta Give feedback Search logs

- Set up job 2s
- Pull ghcr.io/actions/jekyll-build-pages:v1.0.12 13s
- Checkout 1s
- Build with Jekyll 3s
- Upload artifact 0s
- Post Checkout 1s
- Complete job 0s

github.com/VarunKhubani/PWA_APP/actions/runs/8461888672/job/23182395069

VarunKhubani / PWA_APP

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

pages build and deployment #1 Re-run all jobs

Summary

Jobs

- build
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- deploy

Run details

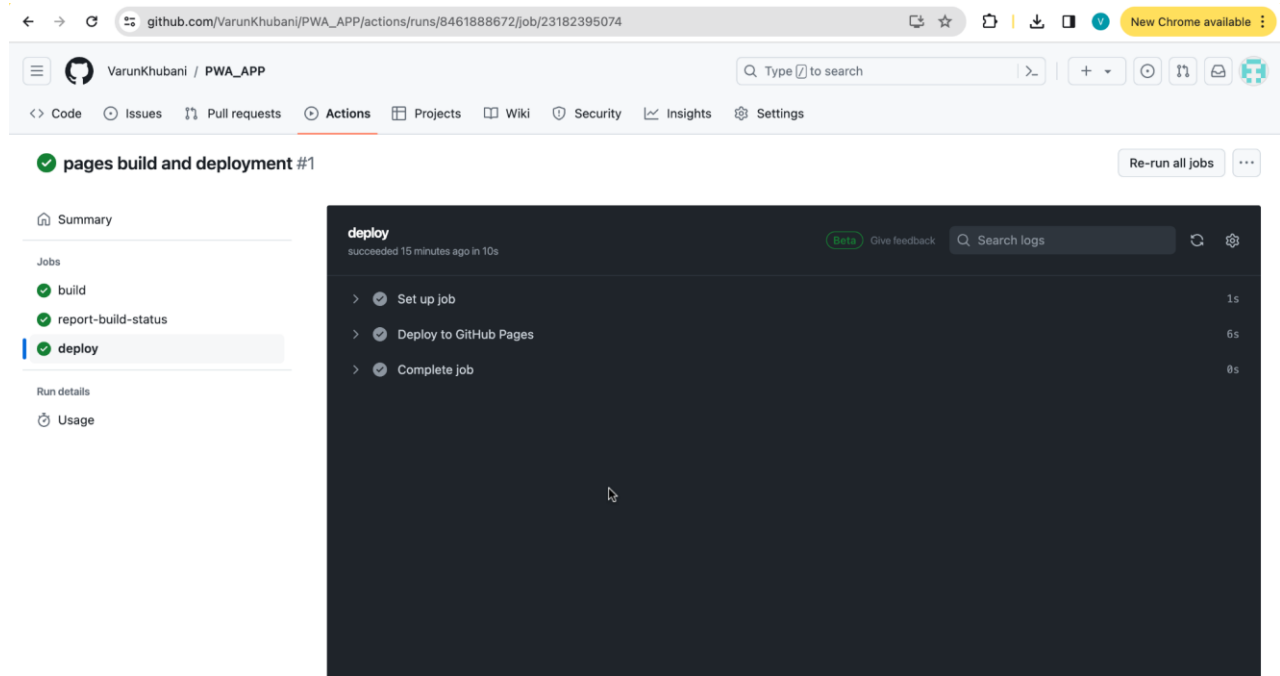
Usage

report-build-status

succeeded 15 minutes ago in 4s

Beta Give feedback Search logs

- Set up job 1s
- Report Build Status 1s
- Complete job 0s



Step4: Go to Settings -> Pages again , and you will see the pages has been deployed and a link is given

GitHub Pages

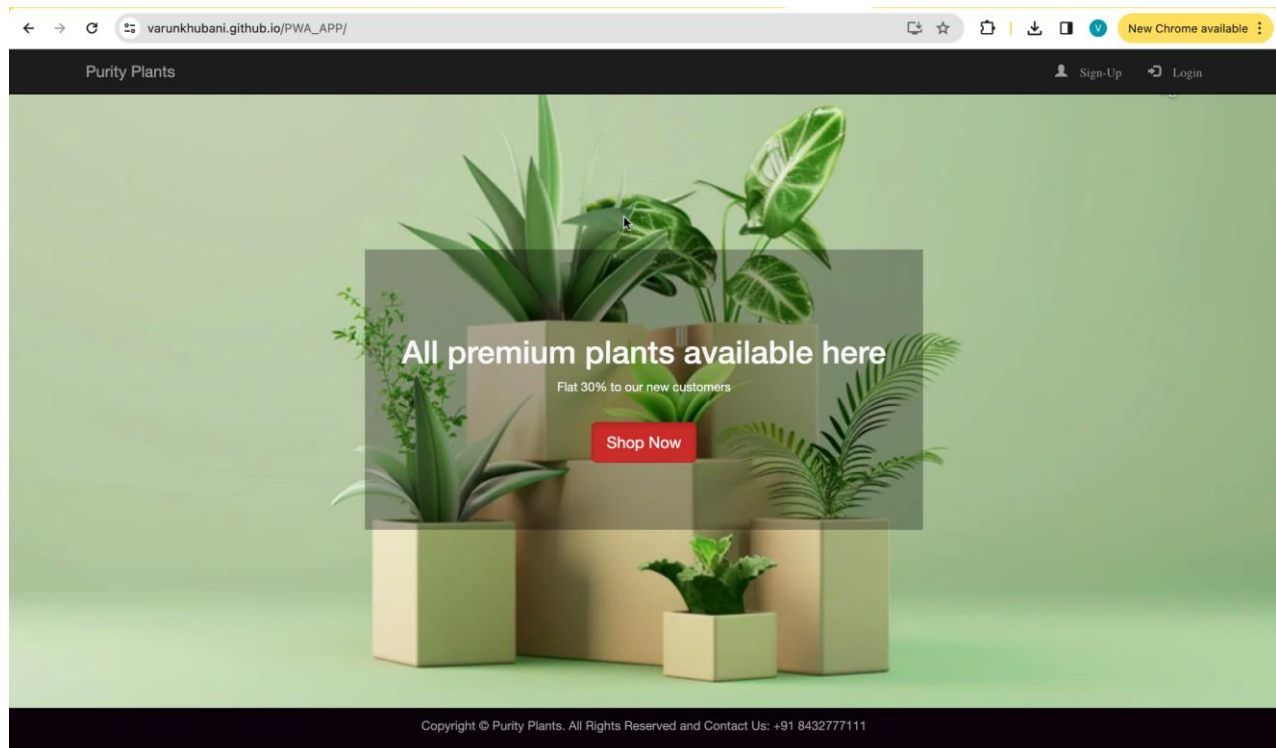
[GitHub Pages](#) is designed to host your personal, organization, or project pages from a GitHub repository.

Your site is live at https://varunkhubani.github.io/PWA_APP/

Last [deployed](#) by [VarunKhubani](#) 18 minutes ago

[Visit site](#)





Conclusion: Hence we deployed our E-Commerce Progressive Web App Successfully on GitHub Pages