

## Experiment No. 10

### Aim:

To study and implement deployment of 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.

## Firestore

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

Some of the features offered by Firestore are:

1. Add the Firestore library to your app and get access to a shared data structure. Any changes made to that data are automatically synchronized with the Firestore cloud and with other clients within milliseconds.
2. Firestore 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 Firestore. Every piece of data has its own URL which can be used in Firestore'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 Firestore

Firestore 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 to our GitHub repository:** <https://github.com/bhumishap/PWA-BOTM>

## Github Screenshot:

The image shows two screenshots from a GitHub repository named "PWA-BOTM".

**Top Screenshot: Repository File List**

The repository is public and has 1 branch (main) and 0 tags. It shows a commit by bhumishap titled "First Commit - Deploy PWA" from 1 week ago. The file list includes:

File	Commit	Time
icons	First Commit - Deploy PWA	now
media	First Commit - Deploy PWA	now
screenshots	First Commit - Deploy PWA	now
bgvid.mp4	First Commit - Deploy PWA	now
index.html	First Commit - Deploy PWA	now
madwoman.png	First Commit - Deploy PWA	now
manifest.json	First Commit - Deploy PWA	now
service-worker.js	First Commit - Deploy PWA	now
styles.css	First Commit - Deploy PWA	now

A README file is also visible.

**Bottom Screenshot: GitHub Pages Settings**

The "General" tab is selected. It shows the GitHub Pages site is live at <https://bhumishap.github.io/PWA-BOTM/>, last deployed by bhumishap last week. A "Visit site" button is available.

**Build and deployment**

**Source:** Deploy from a branch

**Branch:** Your GitHub Pages site is currently being built from the main branch. [Learn more about configuring the publishing source for your site.](#)

main / (root) Save

Learn how to [add a Jekyll theme](#) to your site.

Your site was last deployed to the [github-pages](#) environment by the [pages build and deployment](#) workflow. [Learn more about deploying to GitHub Pages using custom workflows](#)

**PWA-BOTM** Public

main 1 Branch 0 Tags

Go to file Add file Code

**bhumishap** Update manifest.json ✓ 6b773c0 · last week 2 Commits

icons First Commit - Deploy PWA last week

media

screenshots

bgvid.mp4

index.html

madwoman.png

manifest.json Update manifest.json last week

service-worker.js First Commit - Deploy PWA last week

styles.css First Commit - Deploy PWA last week

**README**

**Add a README**

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

**About**

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

**Releases**

No releases published

[create a new release](#)

**Packages**

No packages published

[Publish your first package](#)

**Deployments 1**

✓ github-pages last week

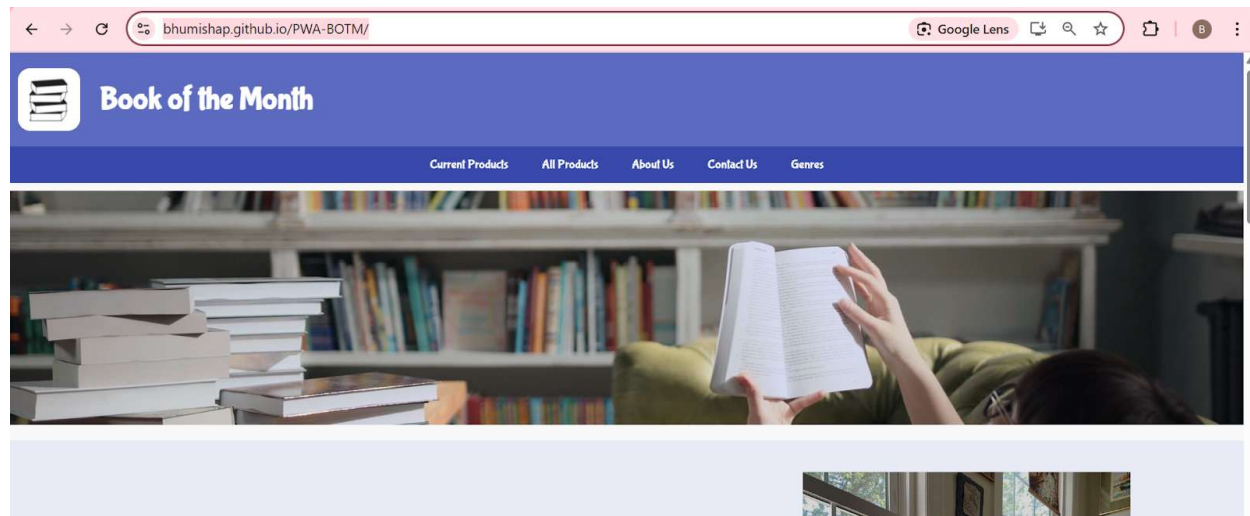
**Languages**

HTML 46.2% CSS 27.3% JavaScript 26.5%

**All checks have passed**

3 successful checks

- ✓ pages build and deployment / build (dynamic) Successful in 21s [Details](#)
- ✓ pages build and deployment / report-build-status (dynamic) Successful in 4s [Details](#)
- ✓ pages build and deployment / deploy (dynamic) Successful in 10s [Details](#)



**Deployed Link:** <https://bhumishap.github.io/PWA-BOTM/>

### Conclusion:

By successfully deploying the PWA to GitHub Pages, we made the app accessible online through a live URL. This experiment helped us understand the deployment process and the importance of version control and static hosting for PWAs.