

EXPERIMENT NO: - 10

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

Pages. **Theory: -**

GitHub Pages: Static Website Hosting Made Simple

GitHub Pages is a free hosting service that allows users to publish **public webpages directly from a GitHub repository**. It is particularly useful for **static websites, project documentation, and blogs**.

Key Features

- **Jekyll Integration:** Built-in support for Jekyll enables easy blogging.
- **Custom Domains:** Allows users to configure their own URLs.
- **Automatic Page Deployment:** Simply push your changes to the repository, and the updates go live.

Why Choose GitHub Pages?

- **Completely Free:** No hosting charges.
- **Seamless GitHub Integration:** Works directly with your repositories.
- **Quick Setup:** Just create a repository, push your files, and your site is live.

Who Uses GitHub Pages?

Companies like **Lyft, CircleCI, and HubSpot** use GitHub Pages for their documentation and static sites. It is widely adopted, appearing in **775 company stacks and 4,401 developer stacks**.

Pros & Cons

Pros

- Familiar interface for GitHub users.

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- Simple deployment via the [gh-pages](#) branch.
- Supports custom domains with easy DNS configuration.

Cons

- Repositories need to be public unless you have a paid plan.
- Limited HTTPS support for custom domains (expected to improve).
- Jekyll plugins have limited support.

Firestore: A Full-Featured Real-Time Backend

Firestore is a cloud-based **real-time application platform** developed by Google. It enables developers to build **dynamic, collaborative applications** with ease.

Key Features

- **Real-Time Database:** Automatically syncs data across all connected clients. •
- **Cloud-Based Storage:** JSON-based storage accessible via REST APIs. •
- **Scalable Infrastructure:** Works well with existing services and scales automatically. •
- **Authentication & Cloud Messaging:** Secure login and push notifications.

Why Choose Firestore?

- **Instant Backend Setup:** No need to build a separate backend.
- **Fast & Responsive:** Real-time data synchronization.
- **Built-in HTTPS:** Free SSL certificates for custom domains.

Who Uses Firestore?

Companies like **Instacart, 9GAG, and Twitch** rely on Firestore for their backend needs. Firestore is widely adopted, appearing in **1,215 company stacks and 4,651 developer stacks**.

Pros & Cons

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Pros

- **Hosted by Google**, ensuring reliability and security.
- **Comes with authentication, messaging, and real-time database services.**
- **Free HTTPS support** for all custom domains.

Cons

- **Limited Free Plan:** 10 GB of data transfer per month (can be mitigated with a CDN).
- **Command-Line Deployment:** No GUI for hosting.
- **No Built-in Static Site Generator Support:** Unlike GitHub Pages, Firebase doesn't natively support static site generators like Jekyll.

Link to our GitHub repository:

<https://github.com/Chirag7270/IP-mini-project>

Hosted link:

<https://chirag7270.github.io/IP-mini-project/>

Github Screenshot:

Workflow runs - CI

github.com/Chirag7270/IP-mini-project/actions

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Code Issues Pull requests Actions Projects Security Insights Settings

Actions

New workflow

All workflows

Showing runs from all workflows

Filter workflow runs

pages-build-deployment

Management

- Caches
- Deployments
- Attestations
- Runners
- Usage metrics
- Performance metrics

4 workflow runs

	Event	Status	Branch	Actor
pages build and deployment pages-build-deployment #4: by Chirag7270	gh-pages	17 minutes ago 43s		...
pages build and deployment pages-build-deployment #3: by Chirag7270	gh-pages	last month 36s		...
pages build and deployment pages-build-deployment #2: by Chirag7270	gh-pages	last month 38s		...
pages build and deployment pages-build-deployment #1: by Chirag7270	gh-pages	last month 43s		...

Pages

github.com/Chirag7270/IP-mini-project/settings/pages

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Code Issues Pull requests Actions Projects Security Insights Settings

General

Access

- Collaborators
- Moderation options

Code and automation

- Branches
- Tags
- Rules
- Actions
- Webhooks
- Environments
- Codespaces
- Pages

Security

- Advanced Security
- Deploy keys
- Secrets and variables

GitHub Pages

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

Your site is live at <https://chirag7270.github.io/IP-mini-project/>
Last deployed by Chirag7270 7 minutes ago

Visit site

Build and deployment

Source

Deploy from a branch

Branch

Your GitHub Pages site is currently being built from the gh-pages branch. [Learn more about configuring the publishing source for your site.](#)

gh-pages / (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](#)

Custom domain

Custom domains allow you to serve your site from a domain other than chirag7270.github.io. [Learn more about configuring](#)

