#### **EXPERIMENT: 10**

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

### Theory:

GitHub Pages is a platform that allows users to host public web pages directly from their GitHub repositories. It offers several key features, including:

- **1. Blogging with Jekyll:** GitHub Pages supports Jekyll, a static site generator, making it easy to create and maintain blogs.
- **2. Custom URL:** Users can set up custom domain names for their GitHub Pages sites.
- **3. Automatic Page Generator:** GitHub Pages provides an automatic page generator for quickly creating basic websites.

Reasons for favoring GitHub Pages over Firebase include:

- **1. Free to use:** GitHub Pages is free to use for public repositories.
- **2. Integrated with GitHub:** Since GitHub Pages is integrated with GitHub, it's convenient for users already familiar with the platform.
- **3. Quick setup:** Setting up a GitHub Pages site is straightforward, requiring only the push of static website files to a specific branch.

GitHub Pages is trusted by companies like Lyft, CircleCI, and HubSpot, and is popular among developers, with a significant presence in both company and developer stacks.

## **Pros of GitHub Pages:**

- 1. Familiar interface for GitHub users.
- 2. Easy setup process by pushing static website files.
- 3. Built-in support for Jekyll and custom domains.
- 4. Custom domain support with CNAME file configuration.

# **Cons of GitHub Pages:**

- 1. Public visibility of website code unless using a private repository.
- 2. Limited HTTPS support for custom domains.
- 3. Inconsistent support for Jekyll plugins.

Firebase, on the other hand, is a real-time app platform designed to power collaborative applications. Some of its features include:

- 1. Real-time data synchronization across clients and the Firebase cloud.
- 2. Client-side development with real-time updates.
- 3. JSON-based data storage with URL accessibility for easy integration and viewing.

### **Reasons for favoring Firebase over GitHub Pages:**

- 1. Real-time backend functionality.
- 2. Fast and responsive data synchronization.
- 3. Hosted by Google with access to additional services like authentication and cloud messaging.

Popular companies such as Instacart, 9GAG, and Twitch use Firebase, and it's mentioned in numerous company and developer stacks.

#### **Pros of Firebase:**

- 1. Hosted by Google with access to various services.
- 2. Provides authentication, cloud messaging, and real-time database functionality.
- 3. Support for HTTPS and provision of free SSL certificates for custom domains.

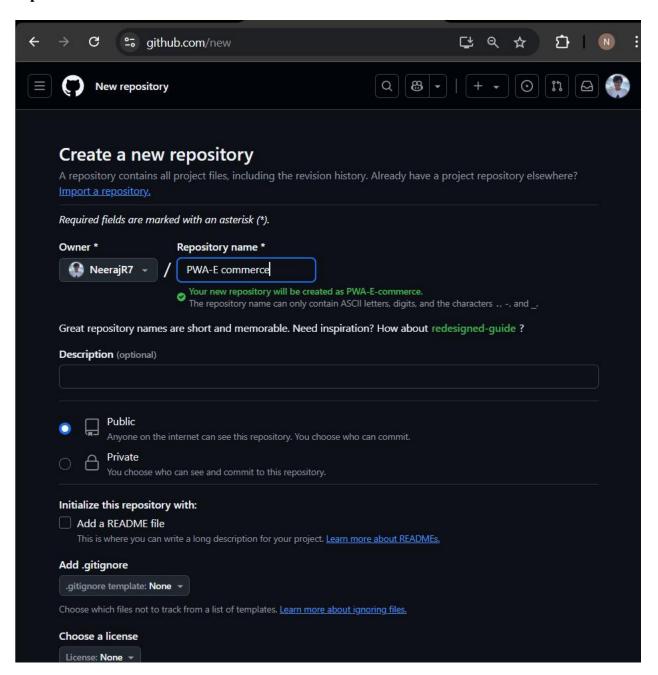
#### **Cons of Firebase:**

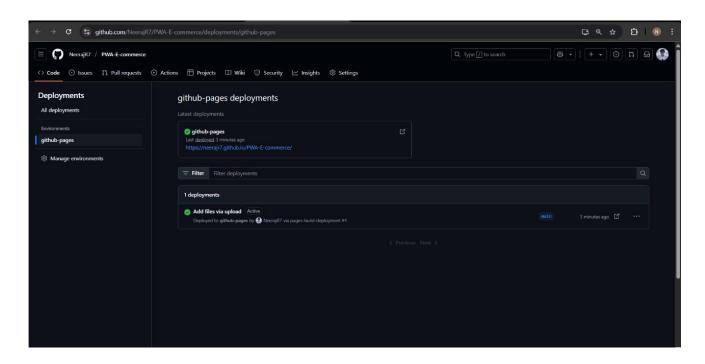
- 1. Limited data transfer allowance per month.
- 2. Command-line interface only for management.
- 3. Lack of built-in support for static site generation.

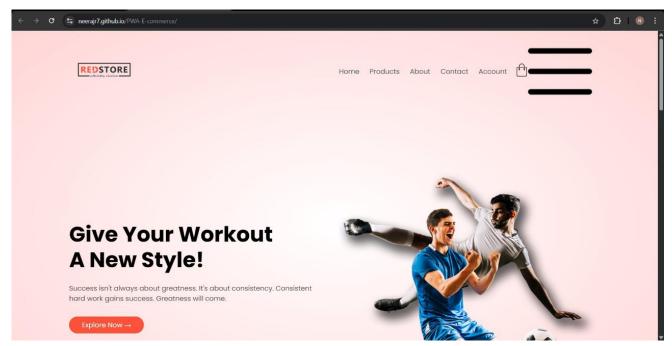
The hosted GitHub repository link for PWA project is:

https://neerajr7.github.io/PWA-E-commerce/

### **Output:**







**Conclusion:** Therefore, deploying an E-commerce PWA to GitHub Pages involves setting up a GitHub repository, configuring GitHub Pages settings, and ensuring proper functionality of the deployed PWA. This deployment method offers a convenient and cost-effective way to host PWAs with minimal setup and maintenance requirements