

MPL Experiment - 10

Aim: To study and implement the deployment of an Ecommerce Progressive Web App (PWA) using GitHub Pages.

Theory: GitHub Pages is a free hosting service provided by GitHub for deploying static websites directly from a repository. It simplifies website deployment by enabling users to publish web pages by pushing updates to a specific branch. It supports Jekyll, custom domains, and automatic page generation.

Advantages of GitHub Pages:

1. Free and easy to set up.
2. Works seamlessly with GitHub repositories.
3. Supports Jekyll for blogging.
4. Allows custom domain integration.

Limitation of GitHub Pages:

1. The repository must be public unless using a paid private plan.
2. Limited plugin support for Jekyll.
3. Custom domains lack built-in HTTPS support.

Alternative - Firebase Hosting

Firebase, a cloud service by Google, offers a real-time backend solution for web applications. It supports authentication, database storage, and hosting services. Firebase provides an HTTPS-secured environment, making it ideal

for hosting dynamic applications.

Advantages of Firebase Hosting:

1. Built-in HTTPS and security features.
2. Real-time database for dynamic applications.
3. Scalable cloud-based infrastructure.

Limitations of Firebase Hosting:

1. Limited free-tier data transfer (10 GB per month).
2. Requires a command-line interface (CLI) for deployment.
3. No built-in static site generator support.

Conclusion:

In this experiment, we successfully deployed an Ecommerce PWA using GitHub Pages. We explored the advantages and limitations of GitHub Pages and Firebase Hosting. GitHub Pages provides a simple, free, and Git-integrated method for hosting static web applications, making it ideal for projects that do not require a backend. However, for more advanced applications requiring real-time data handling and authentication, Firebase Hosting is a more suitable alternative.