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Subject : MPL Exp 10

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

Theory :

Deployment of Ecommerce PWA to GitHub Pages :

Progressive Web Apps (PWAs) are modern web applications that offer users a native app-like experience while maintaining the accessibility and performance of a web page. They are designed to work offline, load quickly, and provide a reliable experience, making them ideal for ecommerce platforms.

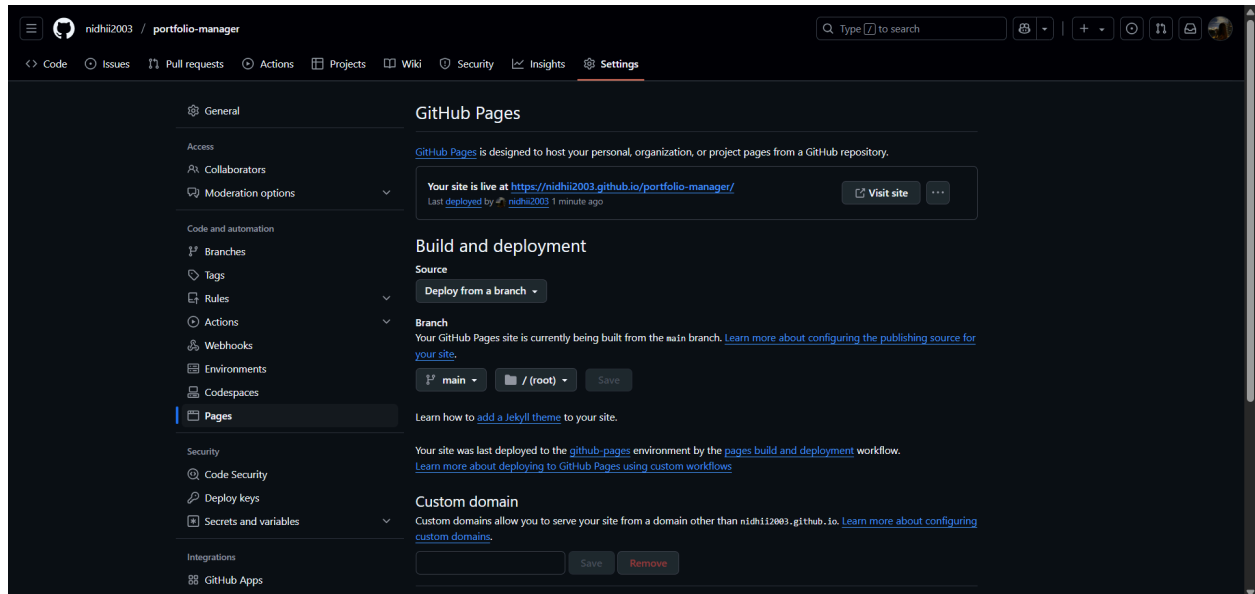
To deploy an Ecommerce PWA to GitHub Pages :

1. **Build the Ecommerce PWA :** Create your ecommerce app using HTML, CSS, JavaScript, or frameworks like React, Angular, or Vue.js. Implement key PWA features like service workers for offline functionality and a manifest.json file for app installation on user devices.
2. **Prepare for Deployment :** Ensure that your app is production-ready by building the project using commands like `npm run build`. This generates the static files (HTML, CSS, JS) that are ready for hosting.
3. **Push Code to GitHub :** Create a GitHub repository, push your project files (including the build folder), and set up the necessary configuration files like `package.json`.
4. **Configure GitHub Pages :** In the repository's settings, enable GitHub Pages and configure it to serve content from the `gh-pages` branch. This makes your app publicly accessible.
5. **Ensure Correct URLs and Caching :** Make sure URLs in your app are correctly linked to prevent issues with broken paths, especially when deployed. The service worker should handle caching of important assets for optimal offline performance.
6. **Test and Deploy :** Once deployed, test your PWA across different devices and browsers to ensure smooth functionality, including offline capabilities and quick loading.

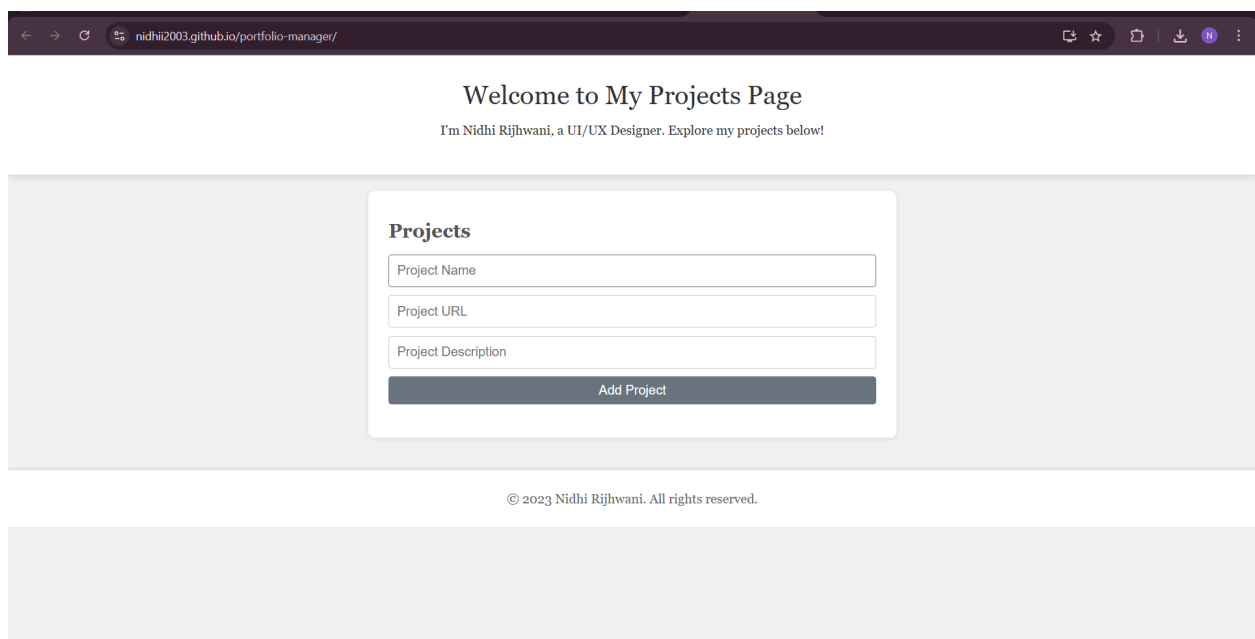
Output :

This screenshot shows the main view of the 'portfolio-manager' repository on GitHub. The repository is public and owned by 'nidhi2003'. The 'main' branch is selected, showing a list of files including 'icons', 'node_modules', 'app.js', 'index.html', 'manifest.json', 'package-lock.json', 'package.json', 'service-worker.js', 'styles.css', and 'vite.config.js'. All files are associated with the commit 'Complete PWA project' by 'nidhi2003' from 9 hours ago. The right sidebar contains sections for 'About' (describing it as a portfolio page), 'Activity' (0 stars, 1 watching, 0 forks), 'Releases' (no releases published), 'Packages' (no packages published), 'Deployments' (1 deployment: 'github-pages' 19 minutes ago), and 'Languages'.

This screenshot shows the 'Settings' page for the 'portfolio-manager' repository, specifically the 'GitHub Pages' section. The left sidebar lists various settings categories: General, Access, Collaborators, Moderation options, Code and automation, Branches, Tags, Rules, Actions, Webhooks, Environments, Codespaces, Pages (selected), Security, and Code Security. The main content area is titled 'GitHub Pages' and includes a description: 'GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.' Under 'Build and deployment', the 'Source' is set to 'Deploy from a branch'. The 'Branch' section states that GitHub Pages is currently disabled and provides a link to learn more about configuring the publishing source. The 'Visibility' section, which is a GitHub Enterprise feature, explains that it can be used to restrict access to the GitHub Pages site. A 'Start free for 30 days' button is visible at the bottom.



Link : <https://nidhi2003.github.io/portfolio-manager/>



Conclusion :

In conclusion, deploying an Ecommerce PWA to GitHub Pages offers a simple, cost-effective way to provide users with a fast, reliable, and app-like experience. By leveraging GitHub Pages for hosting, you can easily deploy a PWA that works offline, loads quickly, and offers smooth navigation, leading to better user engagement. This method also ensures your ecommerce site is accessible across all devices, enhancing the overall user experience. Using service workers and caching mechanisms further

boosts performance, making this approach ideal for modern, scalable ecommerce platforms.