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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.

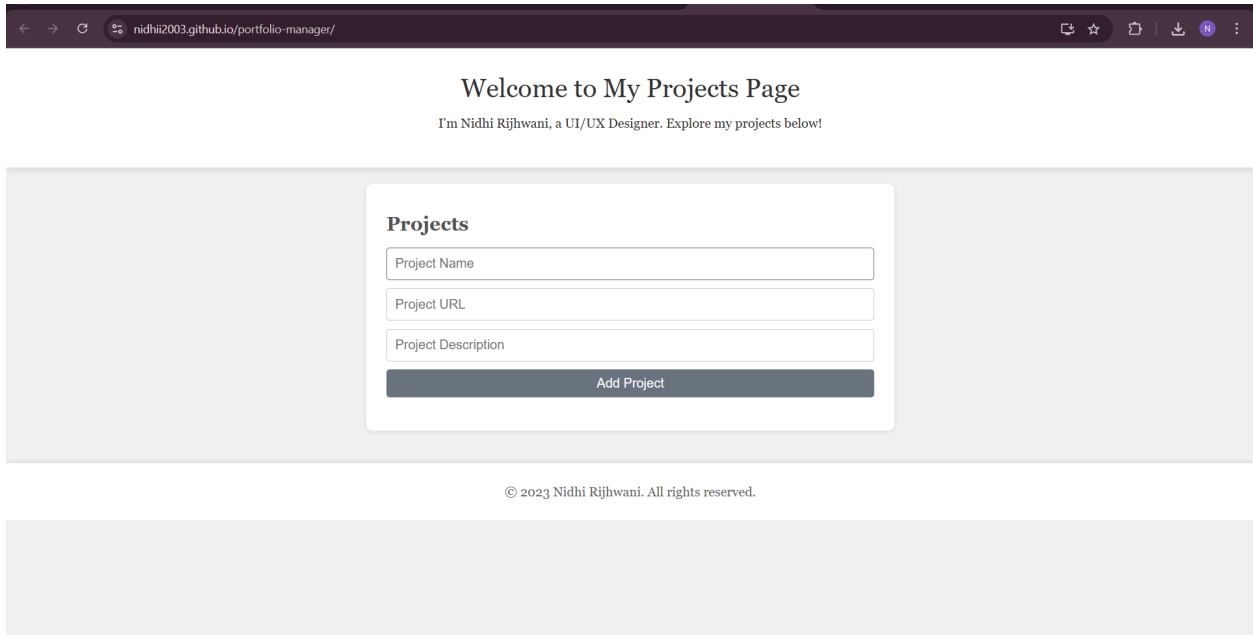
## Output :

This screenshot shows the main page of a GitHub repository named 'portfolio-manager' owned by 'nidhi2003'. The repository is public and has 1 branch (main) and 0 tags. The file list on the left includes 'icons', 'node\_modules', 'app.js', 'index.html', 'manifest.json', 'package-lock.json', 'package.json', 'service-worker.js', 'styles.css', and 'vite.config.js', all committed 9 hours ago. The right sidebar contains an 'About' section with a description, activity statistics (0 stars, 1 watching, 0 forks), and sections for Releases, Packages, Deployments (showing a deployment to 'github-pages' 19 minutes ago), and Languages.

This screenshot shows the 'Settings' page for the 'portfolio-manager' repository, with the 'GitHub Pages' tab selected. The left sidebar lists various settings categories, with 'Pages' highlighted. The main content area shows that GitHub Pages is currently disabled. Under 'Build and deployment', the 'Source' is set to 'Deploy from a branch'. The 'Branch' section indicates that GitHub Pages is disabled and provides a link to learn more about configuring the publishing source. The 'Visibility' section shows it is set to 'Public' (with a 'GitHub Enterprise' link) and includes a 'Start free for 30 days' button.

This screenshot shows the 'Settings' page for the 'portfolio-manager' repository, with the 'GitHub Pages' tab selected. The left sidebar is the same as the previous screenshot. The main content area now shows that the GitHub Pages site is live at the URL 'https://nidhi2003.github.io/portfolio-manager/'. A 'Visit site' button is visible. Under 'Build and deployment', the 'Source' is still 'Deploy from a branch', but the 'Branch' is now set to 'main'. The 'Branch' section provides a link to learn more about configuring the publishing source. The 'Custom domain' section is also visible, showing a text input field and 'Save' and 'Remove' buttons.

Link : <https://nidhii2003.github.io/portfolio-manager/>



The screenshot shows a web browser with the address bar displaying `nidhii2003.github.io/portfolio-manager/`. The page content includes a heading "Welcome to My Projects Page" and a subtext "I'm Nidhi Rijhwani, a UI/UX Designer. Explore my projects below!". Below this is a form titled "Projects" with three input fields: "Project Name", "Project URL", and "Project Description". A dark grey button labeled "Add Project" is positioned at the bottom of the form. At the very bottom of the page, a copyright notice reads "© 2023 Nidhi Rijhwani. All rights reserved.".

Welcome to My Projects Page

I'm Nidhi Rijhwani, a UI/UX Designer. Explore my projects below!

**Projects**

Project Name

Project URL

Project Description

Add Project

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### 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.