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MAD lab 10

Aim:

To deploy a React-based E-commerce Progressive Web App (PWA) on GitHub Pages, making it accessible online with offline capabilities and installable features.

Theory:

GitHub Pages is a free static site hosting service that allows you to publish web projects directly from a GitHub repository.

Progressive Web Apps (PWAs) are web applications that behave like native apps. They can work offline, load quickly, and be installed on users' devices. Deploying a PWA to GitHub Pages allows you to share your app with the world while taking advantage of PWA features.

Steps Involved:

1. **Create a GitHub Repository:**

   ○ A public repository is needed to host your code.

2. **Initialize Git:**

   ○ Initialize a Git repo locally, add a remote, and commit your codebase.

3. **Push Code to GitHub:**

   ○ Upload all project files including `public`, `src`, and configuration files.

4. **Enable GitHub Pages:**

   ○ Configure the repository settings to enable GitHub Pages using the main branch.

5. **Install Deployment Tool:**

   ○ Use tools like `gh-pages` package to simplify the deployment process (`npm install gh-pages`).

6. **Update Project Settings:**

   ○ Modify `vite.config.js` (or equivalent) with the correct `base` URL for GitHub Pages deployment.

7. **Deploy the PWA:**

   ○ Build the project (`npm run build`) and deploy it using scripts like `npm run deploy`.

8. **Access Live Site:**

   ○ Visit the GitHub Pages link (e.g., `https://username.github.io/repo-name`) to see your live PWA.

Steps to Deploy an E-commerce PWA to GitHub Pages

1. **Create a GitHub Repository** – Set up a new public repository on GitHub.

2. **Initialize Git** – Link your local project to the repository and commit your code.

3. **Push Code to GitHub** – Upload your project files to GitHub.

4. **Enable GitHub Pages** – Go to the repository's **Settings > Pages**, set the source to the `main` branch, and save.

5. **Install Deployment Tool** – Add the necessary package for GitHub Pages deployment.

6. **Update Project Settings** – Modify the project configuration to specify the deployment URL.

7. **Deploy the PWA** – Build the project and publish it to GitHub Pages.

8. **Access Live Site** – Visit the provided GitHub Pages link to view your deployed PWA.

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pwa Public

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About

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🗎 .eslintrc.cjs   First commit   now   👁 1 watching
🗎 .gitignore   First commit   now   ⑂ 0 forks
🗎 README.md   First commit   now
🗎 index.html   First commit   now   **Releases**
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Access

👥 Collaborators
💬 Moderation options

Code and automation

⑂ Branches
🏷 Tags
⚙ Rules
⊙ Actions
🔗 Webhooks
⊞ Environments
▣ Codespaces
▤ Pages

GitHub Pages

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

Build and deployment

Source

Deploy from a branch ▾

Branch

GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository. Learn more about configuring the publishing source for your site.

⑂ main ▾   📁 / (root) ▾   Save

Visibility GitHub Enterprise

With a GitHub Enterprise account, you can restrict access to your GitHub Pages site by publishing it privately. You can use privately published sites to share your internal documentation or knowledge base with members of your enterprise. You can try GitHub Enterprise risk-free for 30 days. Learn more about the visibility of your GitHub Pages site.

GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.
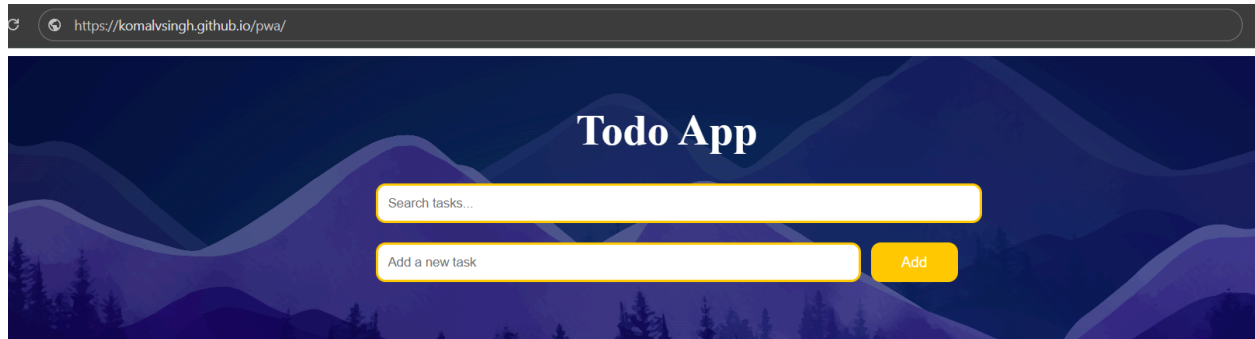
Your site is live at https://komalvsingh.github.io/pwa/   ⧉ Visit site   ⋯
Last deployed by 👤 komalvsingh 1 minute ago

Build and deployment

Source

Deploy from a branch ▾

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Conclusion:

By following the deployment steps, we successfully hosted our E-commerce PWA on GitHub Pages. The app is now publicly accessible, installable, and functional offline thanks to service worker integration. This approach allows seamless distribution, version control, and free hosting for modern web applications.