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

Github Link: https://ganesh23105.github.io/EcoGadgetHubPWA/

Theory

GitHub Pages is a free hosting service provided by GitHub to publish static websites directly from a GitHub repository. It supports HTML, CSS, JavaScript, and other front-end files, making it ideal for hosting PWAs.

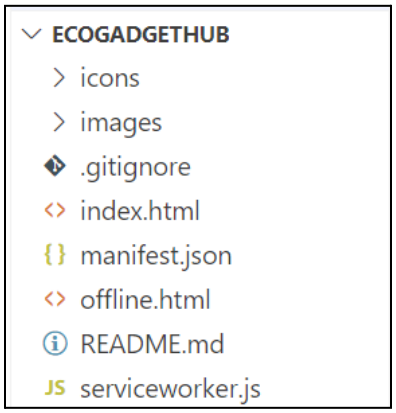
What we implemented in our code

In this experiment, we deployed our E-commerce PWA project, "Eco Friendly Gadgets Collection", to GitHub Pages using these steps:

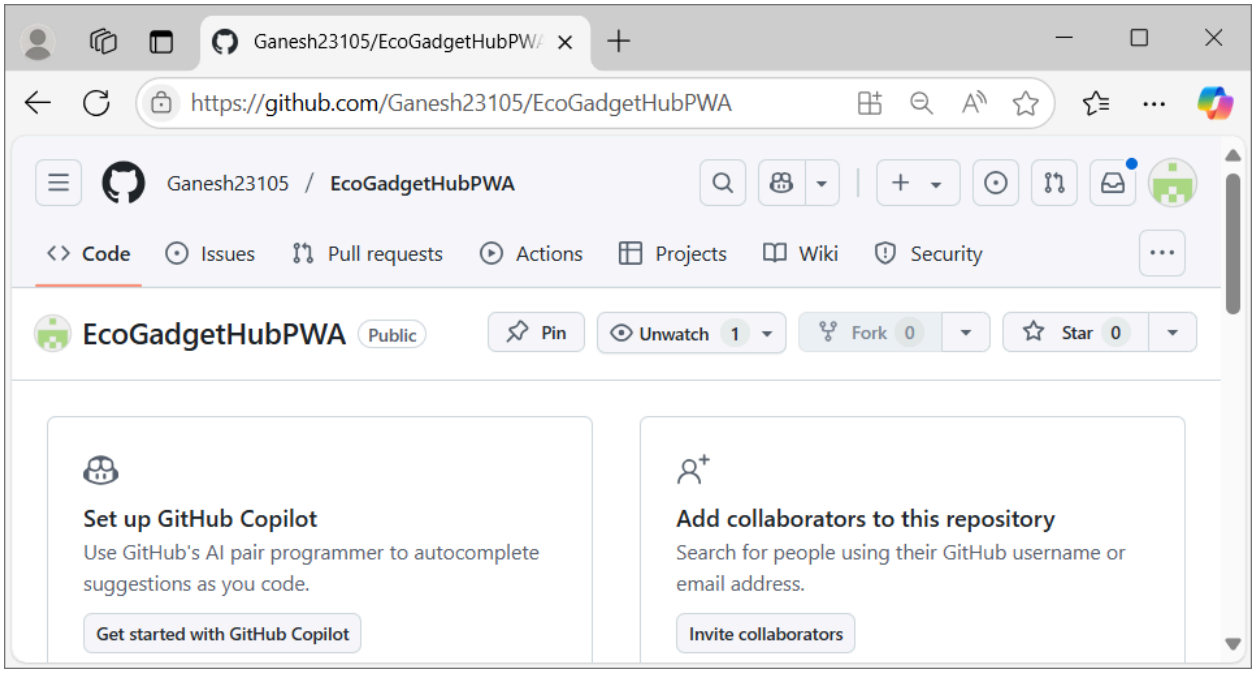
- We ensured all necessary PWA files were in place, such as index.html, manifest.json, serviceworker.js, and offline assets.
- The index.html file used relative paths correctly so resources load properly after deployment.
- We registered the service worker to enable offline access and caching of essential files.
- The manifest.json provided metadata to support "Add to Home Screen" functionality.
- We created a GitHub repository and pushed all project files to it.
- Then, from GitHub Settings → Pages, we selected the main branch and the / (root) folder as the source.
- After saving, GitHub generated a live link through which we accessed the deployed PWA.

This deployment made our PWA fully functional and accessible online with service worker support, offline capabilities, and installability features.

Folder Structure



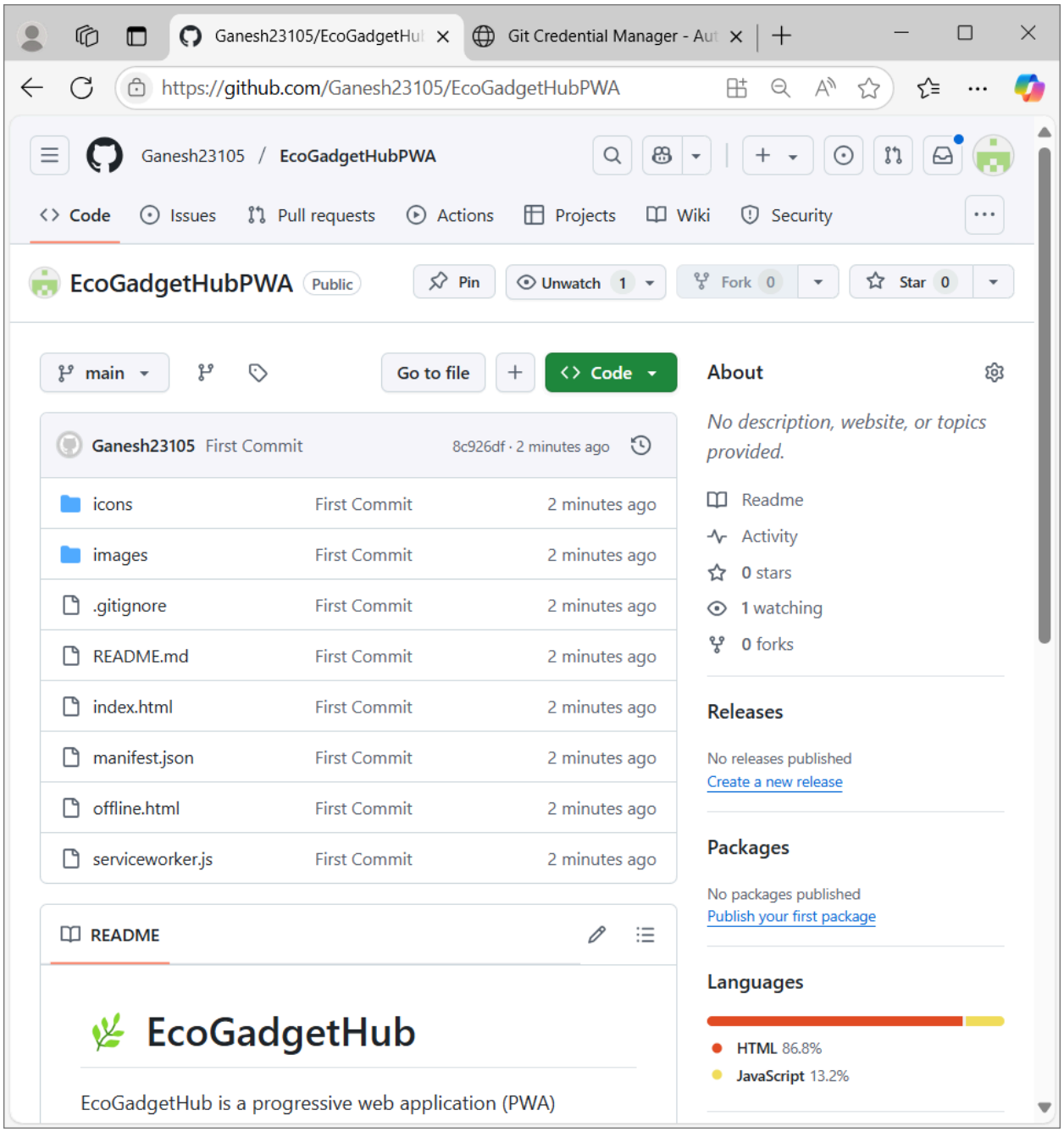
Create a GitHub Repository

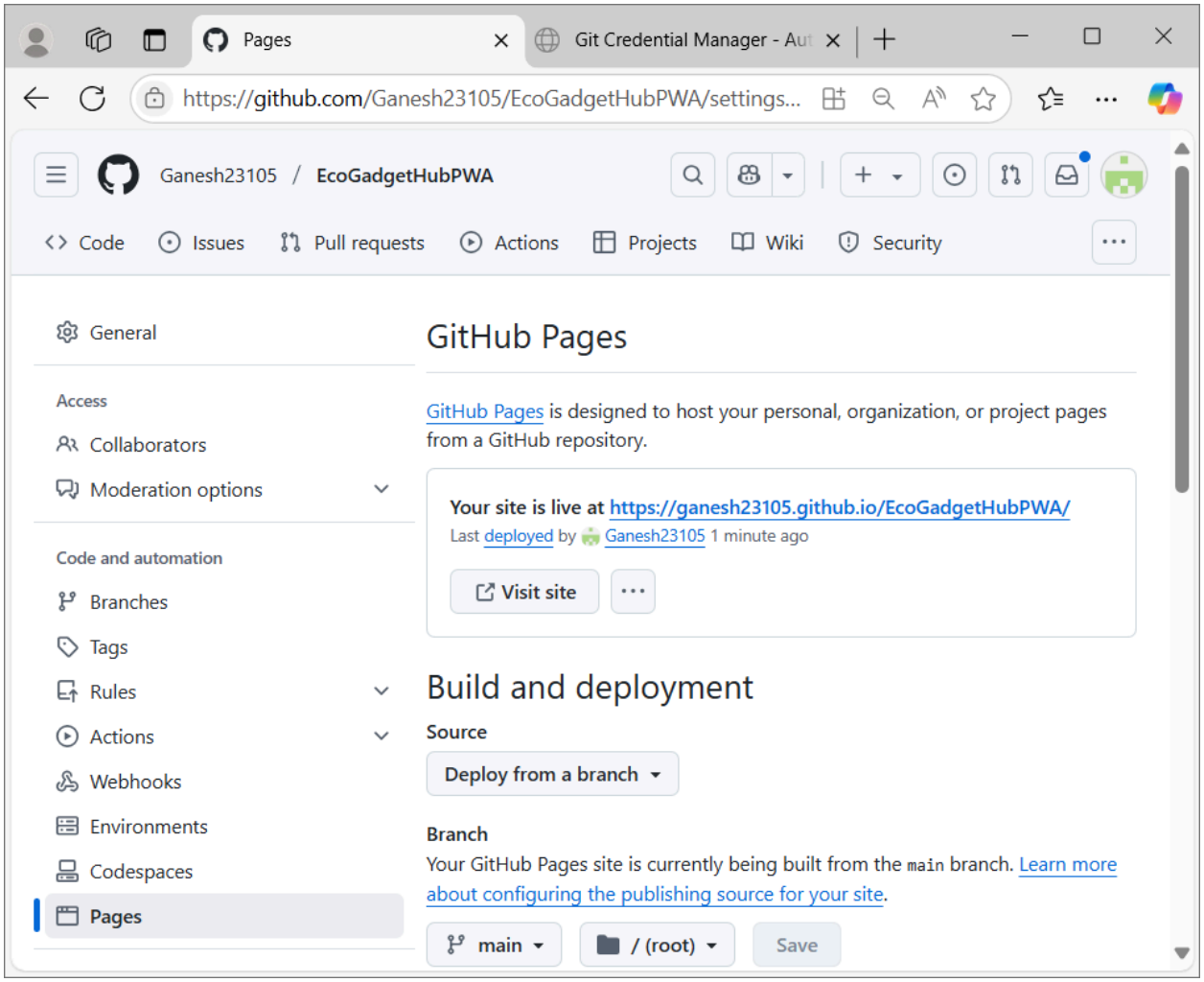


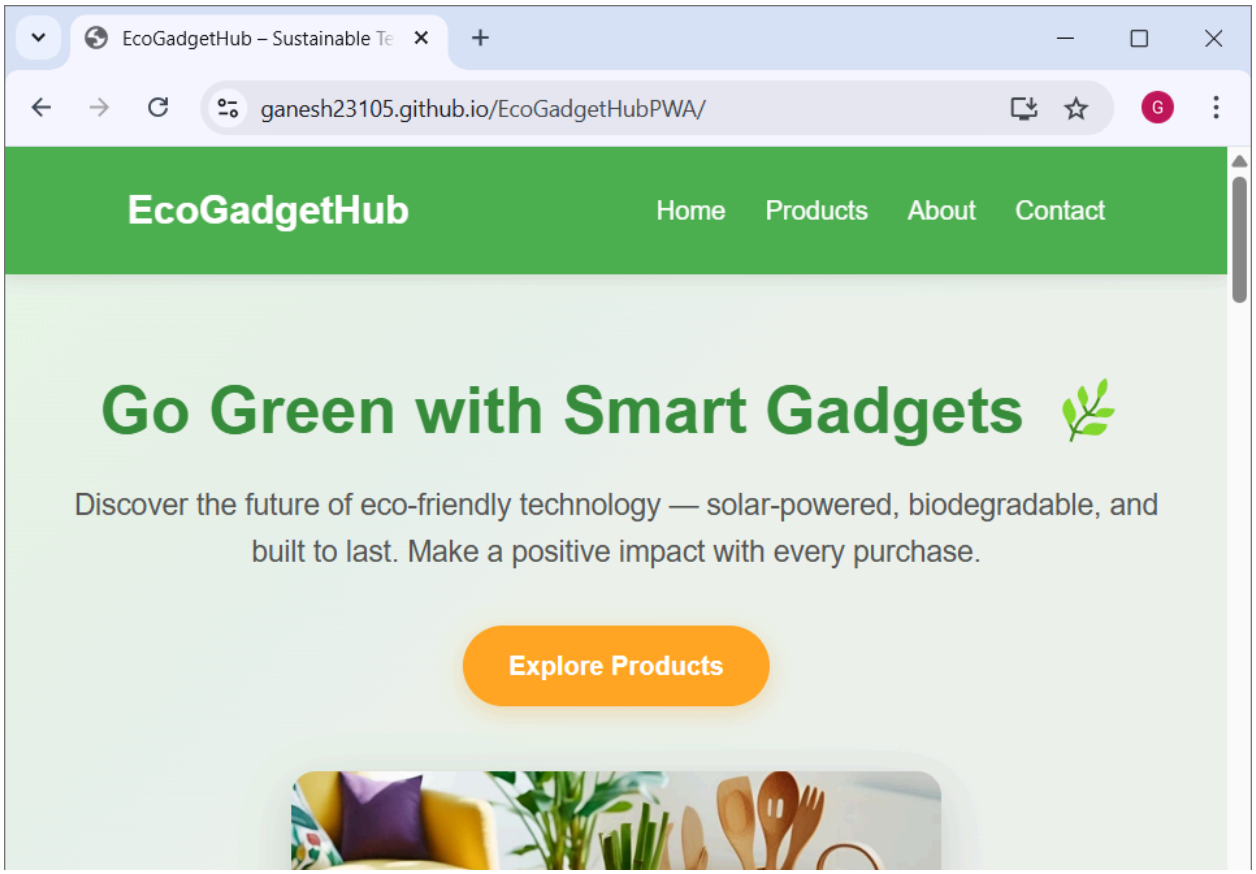
Link Your Local Project to GitHub and Push Changes.

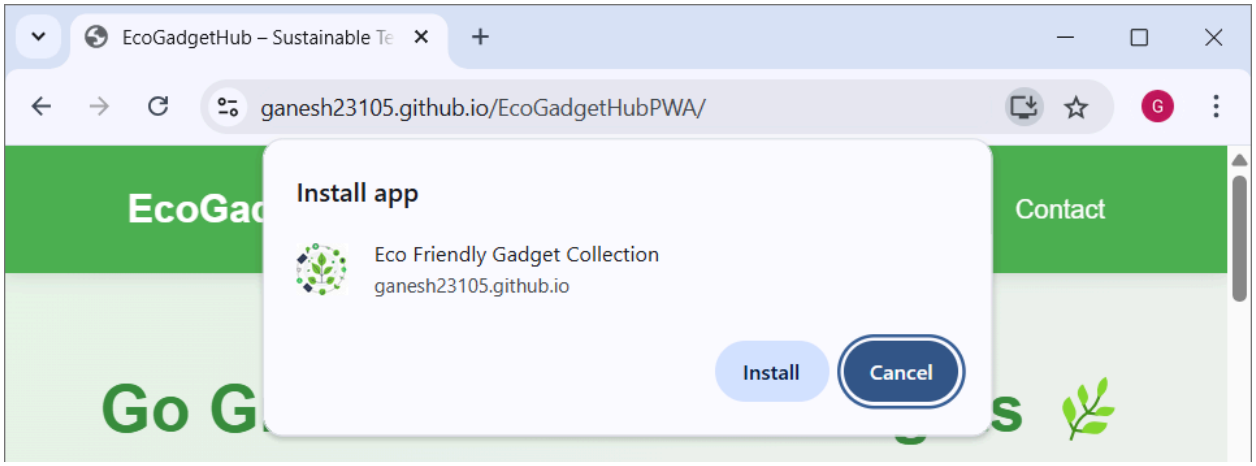
```
PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE

PS D:\Users\Ganesh\Documents\EcoGadgetHub> git init
Initialized empty Git repository in D:/Users/Ganesh/Documents/EcoGadgetHub/.git/
PS D:\Users\Ganesh\Documents\EcoGadgetHub> git add .
PS D:\Users\Ganesh\Documents\EcoGadgetHub> git commit -m "First Commit"
[main (root-commit) 8c926df] First Commit
 13 files changed, 868 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 README.md
 create mode 100644 icons/icon-192x192.png
 create mode 100644 icons/icon-512x512.png
 create mode 100644 images/Biodegradable-Phone-Case.webp
 create mode 100644 images/Eco-friendly-gadgets-collection.webp
 create mode 100644 images/Recycled-Wireless-Earbuds.webp
 create mode 100644 images/Smart-Eco-Light.webp
 create mode 100644 images/Solar-Phone-Charger.webp
 create mode 100644 index.html
 create mode 100644 manifest.json
 create mode 100644 offline.html
 create mode 100644 serviceworker.js
PS D:\Users\Ganesh\Documents\EcoGadgetHub>
```

```
PS D:\Users\Ganesh\Documents\EcoGadgetHub> git remote add origin https://github.com/Gar
PS D:\Users\Ganesh\Documents\EcoGadgetHub> git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 17, done.
Counting objects: 100% (17/17), done.
Delta compression using up to 4 threads
Compressing objects: 100% (17/17), done.
Writing objects: 100% (17/17), 373.18 KiB | 7.18 MiB/s, done.
Total 17 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Ganesh23105/EcoGadgetHubPWA.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
PS D:\Users\Ganesh\Documents\EcoGadgetHub>
```




Pages
Git Credential Manager - Aut
https://github.com/Ganesh23105/EcoGadgetHubPWA/settings...
Ganesh23105 / EcoGadgetHubPWA
Code
Issues
Pull requests
Actions
Projects
Wiki
Security
General
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.
Your site is live at https://ganesh23105.github.io/EcoGadgetHubPWA/
Last deployed by Ganesh23105 1 minute ago
Visit site
Build and deployment
Source
Deploy from a branch
Branch
Your GitHub Pages site is currently being built from the main branch. Learn more about configuring the publishing source for your site.
main
/ (root)
Save


EcoGadgetHub – Sustainable Te
ganesh23105.github.io/EcoGadgetHubPWA/
EcoGadgetHub
Home
Products
About
Contact
Go Green with Smart Gadgets
Discover the future of eco-friendly technology — solar-powered, biodegradable, and built to last. Make a positive impact with every purchase.
Explore Products



Conclusion

In this experiment, we successfully deployed the Eco Friendly Gadgets Collection PWA to GitHub Pages by ensuring proper setup of service workers and manifest files. Initially, we faced 404 errors for a CSS-based image and offline caching issues, which we resolved by correcting the image path and ensuring only valid resources were cached.