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Experiment No 10

Aim : The aim of this experiment is to study and implement the deployment of an E-commerce Progressive Web Application (PWA) to GitHub Pages. By exploring the capabilities of GitHub Pages, we aim to understand its suitability for hosting PWAs, particularly for e-commerce purposes. Through practical implementation and analysis, we seek to evaluate the ease of deployment, customization options, and overall performance of deploying an E-commerce PWA on GitHub Pages compared to alternative hosting solutions.

Theory :

GitHub Pages:

GitHub Pages offers a convenient platform for hosting static websites directly from GitHub repositories.
Key features include:

Free Hosting: Public web pages can be hosted for free, making it an economical choice for deploying E-commerce PWAs.
Seamless Integration: GitHub Pages seamlessly integrates with GitHub repositories, providing a familiar environment for developers already using GitHub for version Control.

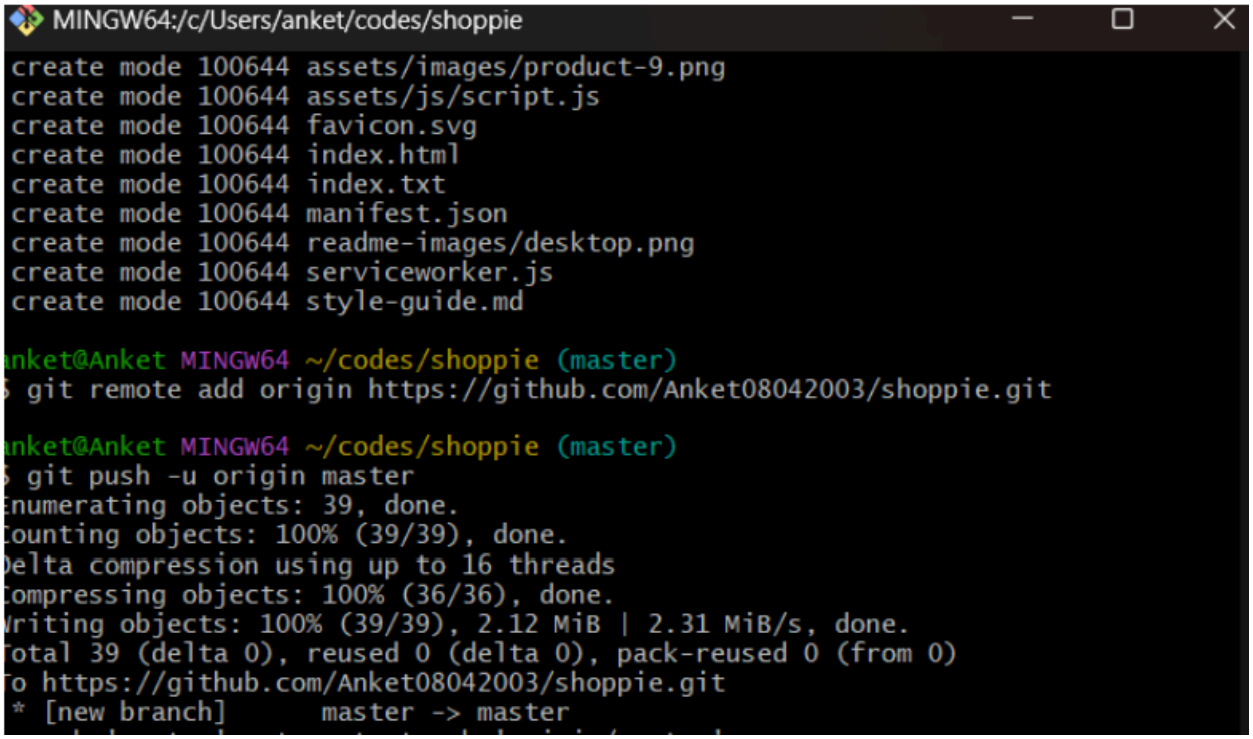
Quick Deployment:
Deployment is straightforward - by pushing static website files to
the gh-pages branch, the website becomes live, minimizing setup time.
Jekyll Support: GitHub Pages supports Jekyll, a popular static site generator, enabling easy website generation and customization.

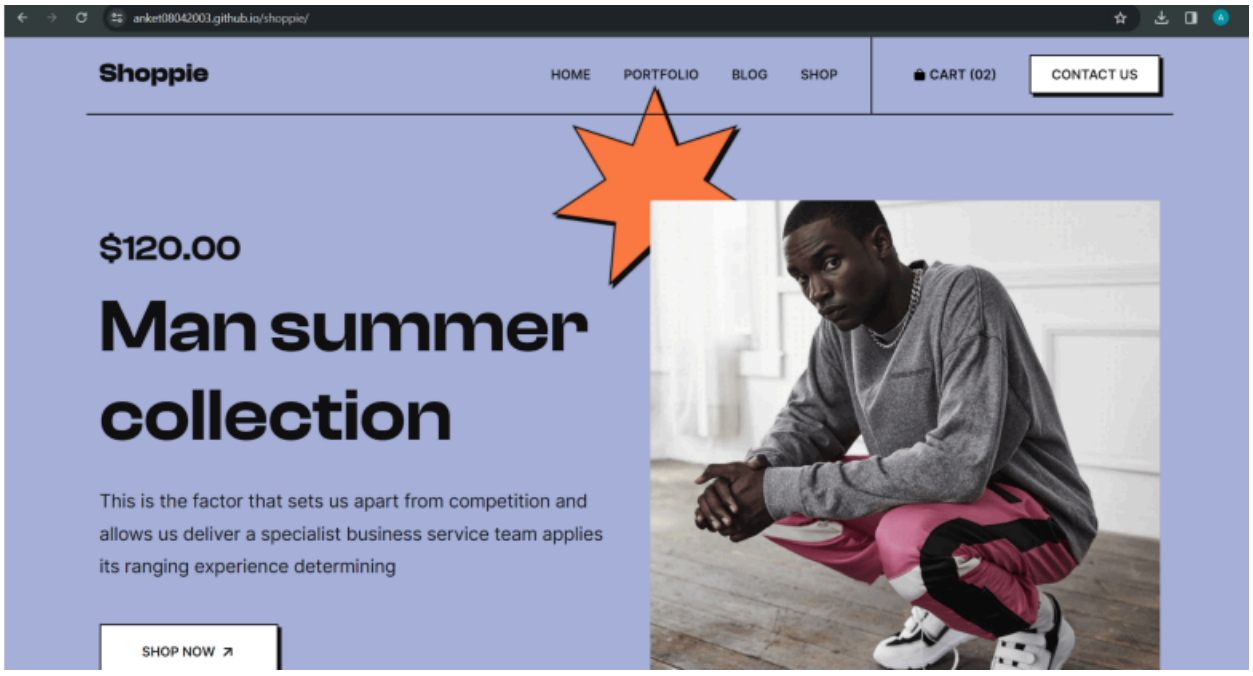
Custom Domain Setup:
Businesses can maintain brand identity by setting up custom
domains for their E-commerce PWAs.
Blogging with Jekyll: GitHub Pages supports blogging features with Jekyll, which can be utilized for content marketing strategies within E-commerce websites.

Firebase:
Firebase is another platform often considered for hosting web applications, including PWAs. However, it differs from GitHub Pages in several aspects:
Cost: While Firebase offers a generous free tier, scaling beyond the free limits can become costly, particularly for high-traffic E-commerce PWAs.
Complexity: Firebase requires a deeper understanding of its features and configuration, which may pose challenges for developers unfamiliar with its ecosystem.

Limited Support for Static Site Generators: Unlike GitHub Pages, Firebase does not offer built-in support for static site generators, potentially complicating the

deployment process for developers relying on these tools.





Conclusion: In conclusion, GitHub Pages presents an attractive option for deploying E-commerce PWAs due to its simplicity, cost-effectiveness, and seamless integration with GitHub's ecosystem. By leveraging GitHub Pages, businesses can quickly launch and maintain their E-commerce websites, focusing on delivering a smooth shopping experience for their customers. This experiment aims to explore and validate the suitability of GitHub Pages for hosting E-commerce PWAs, providing valuable insights for developers and businesses seeking reliable hosting solutions for their web applications.