

Web Based Tutorial Reflective Report

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Introduction

The Jekyll Blog Creation Tutorial aimed to guide development through creating a simple blog-website via the Jekyll Static Site Generator (SSG).

A blog-post approach organised the tutorial into parts facilitating content-readability. Researching blog creation revealed Content Management Systems (CMS) (e.g., WordPress) as a common solution (Mening 2018).

CMS provides tools for content-management (WPBeginner 2018) but appeared to be aimed at management of large dynamic websites, whereas the tutorial would be a small blog. CMS were familiar via CI347, however, research discovered SSGs, revealing surprising comparisons to CMS, sparking curiosity.

Cost-benefit analysis compared CMS/SSG pertaining suitability. CMS benefits included webpage-reuse via templates, user-friendly tools (e.g., feature-rich text-editors), data/design segregation via databases/templates, and plugin-based feature-augmentations (Evans 2018). CMS costs included higher resource expenses (e.g., time/money), slower performance (via dynamic generation of webpages (Harrison 2018)), and security risks (e.g., SQL-injection (Degges 2018)).

SSGs used templates but text-files encapsulated content, enabling generating static websites, minimising security risks and improving performance (website is pre-built). SSG disadvantages included lack of user-friendly tools and scalability issues (slow builds with large websites).

Reflection implied SSG suitability for managing tutorial blog-content. Jekyll (Jekyll 2018) SSG web-technology was chosen due to its current prevalence (Turnbull 2014) incorporating simple yet powerful web-technologies (e.g., Liquid (Whitaker 2016)), enabling efficient content-manipulation.

Automatic Jekyll builds and free hosting via GitHub Pages influenced decision since tutorial changes would be version-controlled via GitHub,

Reflection revealed Jekyll offers significant relevance to individual/business web-masters with similar use-cases (e.g., building small websites via current web-technologies).

Approach

Jekyll's many concepts/technologies distilled to facilitate learning of core skills required to create a blog-website. Blog creation distilled into specific useful blog-functionalities (navigation-bar and archive-page) leveraging Jekyll website-structure to add useful blog features via associated web-technologies (e.g., Liquid).

A blog-post plan guided development including introduction, website-structure, and preparation of a Poole (`poole-master`) theme (poole 2018) for feature-augmentation.

Encountered problems included augmenting `poole-master` with a navigation-bar requiring website-structure comprehension, aiding development (e.g., data-access via `_config.yml`).

Liquid content-manipulation appeared unintuitive, however, recalling CI347 knowledge illuminated transformation-similarities with XSL (W3Schools 2019) yielding appreciation of older web-technologies (XSL) in comprehension of newer web-technologies (Liquid).

Incorrect link resolution resulted in missing resources (e.g., stylesheets) during deployment to servers but was solved via unique `url/baseurl` pairs.

Learned lessons included understanding website-structure, associated tools (e.g., Ruby) and known (e.g., Markdown) and new web-technologies (e.g., Liquid/YAML).

Data-persisting form development via HTML5 LocalStorage API was an exciting endeavour demonstrating the utility of a HTML5 API, piquing interest pertaining developing web-technologies.

Evaluation

The website succeeded in providing a simple blog with features demonstrating important Jekyll concepts.

The navigation-bar demonstrated website-structure via adding reusable components through minimal changes (e.g., YAML/Liquid). The navigation-bar uses a consistent simple design, however, further improvements (e.g., animations) could enhance user-engagement. The website is screen-responsive but spacing prevents the navigation-bar being touch-friendly.

The archive-page demonstrated content-manipulation, enhancing user-experience via post-navigation. Future improvements include adding blog-specific functionality (e.g., category-grouped posts), and addressing broken back/forward navigation for archive-linked posts.

The data-persisting form demonstrates integration of developing web-technologies (e.g., HTML5 LocalStorage). Future improvements include adding several inputs demonstrating multiple data-types persistence.

Future website improvements include adding a Disqus (Disqus 2019) commenting-system (enabling interaction via dynamic-content), Google Analytics (Google 2019) (enabling visitor usage-analysis), and adding a recent posts list (planned but omitted since reflection favoured features of higher perceived learning value).

Development piqued interest of web-technologies and learning pursuits including other HTML5 APIs (e.g., Canvas, (Mozilla 2019)), Jekyll SASS styling, and data-format (e.g., YAML/XML) and data-manipulation (e.g., Liquid/XSL) comparisons.

Conclusion

In conclusion, the tutorial was successfully created, guiding webmasters through development of a simple Jekyll SSG blog demonstrating core skills via associated tools (e.g., Ruby) and web-technologies (e.g., Liquid). Core skills were taught via setup/feature-augmentation including navigation-bar/archive-page (demonstrating website structure and data-manipulation), and data-persisting form (demonstrating integration of developing web-technologies).

The website provided opportunities supplementing CI347 material, e.g., supplementing CMS knowledge with SSGs. Lessons were learned including setup and website-structure pertaining current Jekyll web-technologies, and website-enhancing feature-augmentation via relevant web-technologies (e.g., Liquid).

The experience enabled evaluative reflection of achievements (e.g., tutorial completion), problems, and potential improvements. Acquired experience piqued interest in learning opportunities for related web-technologies (e.g., SASS).

Obtained skills cultivated a deeper understanding and appreciation for web-technologies, hence will prove invaluable in future development endeavours.

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