Introduction to Cloud Computing Report

Lab 3: Building Your Personal Website with GitHub Pages

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Introduction to Cloud Computing
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I. Objective

The objective of this lab is to create and deploy a personal website using GitHub Pages, a Platform as a Service (PaaS) that allows static website hosting directly from a GitHub repository. By completing this lab, students will gain proficiency in:

- Creating a GitHub repository and using GitHub Pages for web hosting.

- Building a static personal website using HTML and CSS.

- Customizing the website layout and design to create a professional online presence.

- Verifying the deployment and accessibility of the website online.

II. Content

1.GitHub Account and Repository Setup

- Create a GitHub account if not already created.

- Set up a new repository named username.github.io, where username is the student's GitHub username.

2.Creating the Personal Website

2. Creating the Personal Website

- **Setup using Jekyll and Minimal Mistakes:** Utilized **GitHub Pages** as the hosting environment and **Jekyll** as the static site generator. The website template was initialized using the **Minimal Mistakes** remote theme for a professional, responsive design.

- **Configuration and Content Structure:** Customized the site's metadata, navigation, and author details by modifying the **_config.yml** file. Created core content files (`index.md`, `about.md`, `projects.md`) using **Markdown** to define the site's three main pages.

- **Design Philosophy:** The design relies on the theme's built-in **responsive layout** (mobile/desktop compatible) and features a clean, card-based display with an author profile sidebar, minimizing the need for custom HTML and CSS coding.

3.Publishing the Website on GitHub Pages

- Publish the website using GitHub Pages by configuring the repository settings.

- Verify that the website is accessible at https://username.github.io.

4.Testing and Verification

- Confirm the live deployment by visiting the provided URL.

- Ensure that the homepage loads correctly and displays the personalized content.

III. Results

1. GitHub Repository and Account Setup

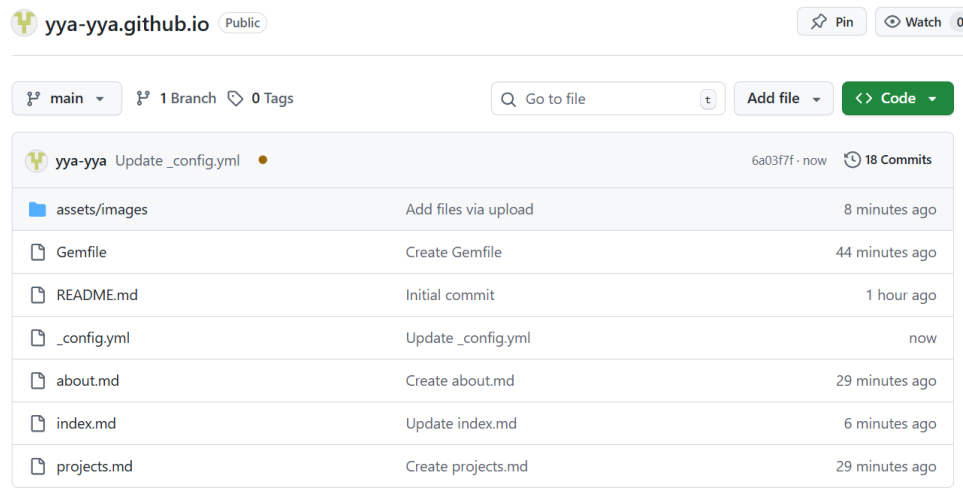Created a GitHub repository named **yya-yya.github.io** , which directly determines the website URL

Figure 1: GitHub Repository Screenshot
Note: Shows repository name **yya-yya.github.io** and uploaded core files (**Gemfile**, **_config.yml**, **index.md**, etc.).

2. Website Creation

Built using Jekyll with the **Minimal Mistakes** remote theme. Core files include:

2.1 Configuration Files

- **Gemfile**: Declares GitHub Pages dependencies

- **_config.yml**: Configures theme, site metadata, and navigation

  Key _config.yml Settings:

2.2 Content Files (Markdown)

Created three main pages in Markdown format, which Jekyll converts to HTML during deployment:

- **index.md**: Homepage with introduction, skills, and contact info

- **about.md**: Detailed education and skills

- **projects.md**: Academic and personal projects

2.3 Design and Layout

Adopted the Minimal Mistakes theme with:

- Clean, professional card-based layout

- Responsive design (desktop/tablet/mobile compatible)

- Dark/light mode toggle

- Author profile sidebar with contact links

3. Deploying the Website on GitHub Pages

Enabled GitHub Pages via repository **Settings** → **Pages**, selecting the **main** branch as the source. GitHub automatically processed Jekyll files, and the website went live after 1–2 minutes.

Figure 2: GitHub Pages Configuration Screenshot
Note: Shows Pages enabled with `main` branch as source, and live URL `https://yya-yya.github.io`.

4. Testing and Verification

Verified the website by visiting `https://yya-yya.github.io`, checking:

- All pages loaded correctly with no broken links

- Responsive layout adapted to different screen sizes

- Theme features (e.g., dark/light mode) functioned normally

This section presents screenshots of the three main pages of the personal website, showcasing the design, layout, and content structure.
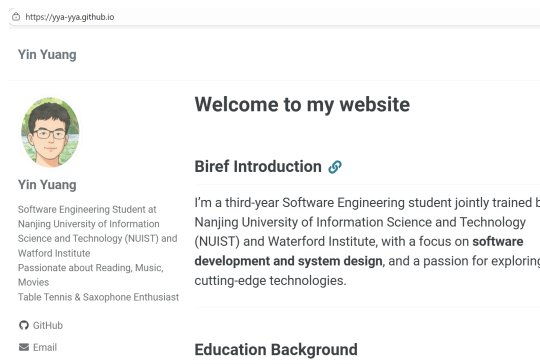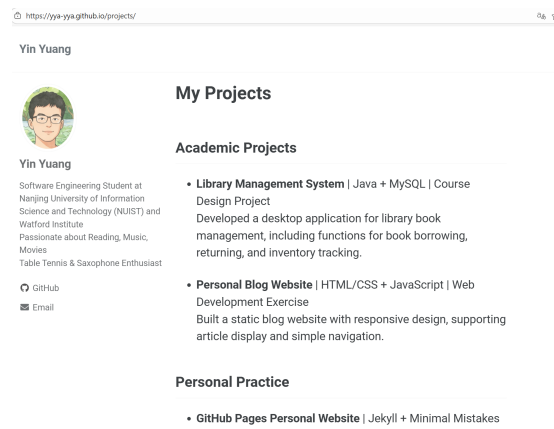

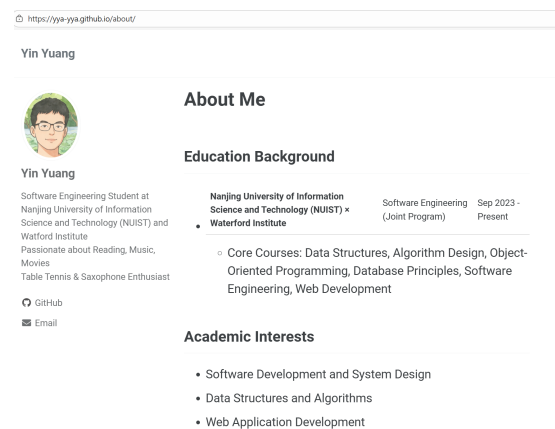Figure 3: Homepage

Figure 4: Projects Page

Figure 5: About Me Page

IV. Conclusion

By completing this lab, I gained practical experience with web hosting using GitHub Pages and learned the basic principles of web development, including creating static websites with HTML and CSS. The final website is fully functional, accessible online, and serves as a personal portfolio that can be used for academic or professional purposes.