# BIT2013 WEB DEVELOPMENT

# <u>Project Report</u>

**FACULTY OF INFORMATION TECHNOLOGY**

**CITY UNIVERSITY MALAYSIA**

**CYBERJAYA CAMPUS**

**NAZMIRUL IZZAD BIN NASIR**

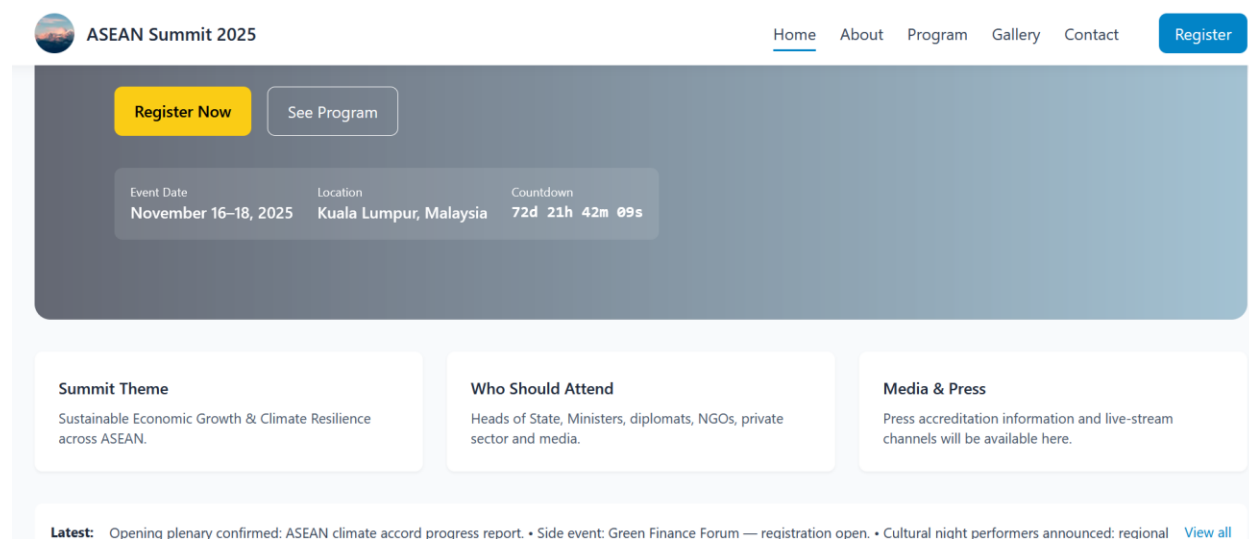Prepared by

| Name | Student ID | Program |
|------|-----------|---------|
| FAHIM ARFATUL AMIN | 202309010781 | BCSSE |
| HAQUE NASIM UL | 202309010717 | BIT |
| RANA MD MASUD | 202306010045 | BIT |

# ASEAN Summit 2025 Web Development Project

## Introduction:

Web development is an essential component of modern digital communication, especially for global events that require inclusive participation and effective dissemination of information. In an era where international summits such as the ASEAN Summit are highly publicized and attended by diverse stakeholders, the design of an accessible, interactive, and user-friendly website becomes vital. Websites not only act as communication tools but also function as gateways to information, registration, and global outreach.

This academic report documents the development of a student-led web project that simulates a professional website for the ASEAN Summit 2025. The report is structured under three main criteria: Project Overview & Planning, Team Roles & Contribution, and Design & Ethical Justification. Through this report, the significance of systematic planning, collaborative teamwork, and ethical digital practices in web development is critically discussed.



## Project Overview & Planning:

The ASEAN Summit 2025 website was conceptualized as a responsive, multi-page event platform. The purpose was twofold: to provide an authentic representation of how digital tools support international summits and to strengthen the team's technical competencies in front-end development. The project aligned with key academic learning outcomes in web design, coding, collaboration, and ethics.

**Project Objectives:**

The objectives of the project were clearly defined at the planning stage:

1. Create a professional and accessible event website using modern front-end technologies such as HTML, CSS, JavaScript, and Tailwind CSS.

2. Simulate realistic event functionality, including multimedia integration, interactive schedules, online registration, and embedded contact features.

3. Ensure ethical and inclusive design practices, addressing accessibility, data privacy, and cultural sensitivity.

Project Structure and Features

The website was structured into multiple sections to ensure logical navigation and comprehensive coverage of the event:

Home Page: Introduced the event with a hero banner, countdown timer, highlights of the summit theme, and a news ticker.

About Page: Provided background on summit objectives, the host city, and organizers. Accessibility notes were also included to highlight inclusivity efforts.

Program Page: Displayed the full summit schedule in an accordion format, enabling users to expand and view sessions. A downloadable PDF was also provided.

Gallery Page: Included a lightbox-enabled image gallery and embedded video highlights of past events.

Contact & Register Page: Featured an interactive contact form, Google Maps integration, and online registration form.

Ethics Page: Documented privacy considerations, copyright notices, and accessibility guidelines.
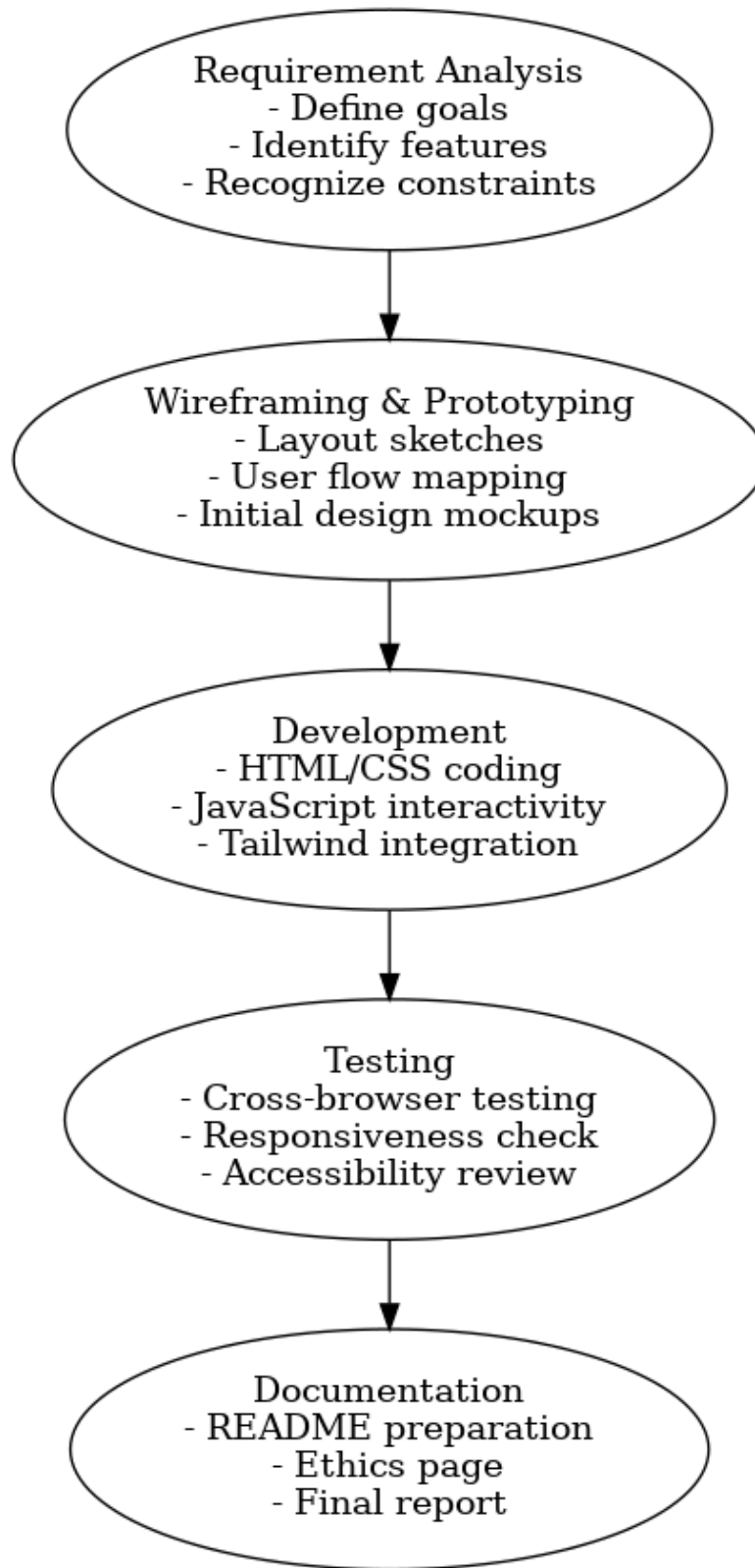
**Tools and Frameworks:**



Tailwind CSS: Chosen for rapid prototyping, utility-based styling, and built-in responsiveness.

JavaScript: Used for countdown timers, accordion interactivity, and gallery lightbox.

GitHub: Served as the collaborative repository for version control, ensuring traceability of contributions.

Unsplash and YouTube: Provided multimedia elements under fair-use practices for placeholders and embedded content.

**Planning Approach:**

Requirement Analysis
- Define goals
- Identify features
- Recognize constraints

Wireframing & Prototyping
- Layout sketches
- User flow mapping
- Initial design mockups

Development
- HTML/CSS coding
- JavaScript interactivity
- Tailwind integration

Testing
- Cross-browser testing
- Responsiveness check
- Accessibility review

Documentation
- README preparation
- Ethics page
- Final report

The team adopted a phased development process:

1. Requirement Analysis  Defining the website goals, features, and constraints.

2. Wireframing and Prototyping  Designing layouts with emphasis on usability.

3. Development  Coding HTML, CSS, and JavaScript; integrating multimedia and interactivity.

4. Testing  Conducting cross-browser and responsive design testing.

5. Documentation  Preparing README and ethics documentation for transparency.

This structured approach mirrors the Software Development Life Cycle (SDLC) model, ensuring that each stage was systematically addressed.

Team Roles & Contribution:

Web development projects are inherently collaborative, requiring diverse technical and managerial skills. The ASEAN Summit 2025 project followed a team-based approach, with members assuming complementary roles to achieve efficiency and maintain accountability.

**Team Roles:**

Project Manager & Planner: Haque Nasim Ul

 Responsible for defining milestones, monitoring deadlines, and ensuring alignment with academic and technical requirements. The manager also facilitated weekly check-ins to track progress.

Front-End Developer (HTML/CSS): Fahim Arafatul Amin

Structured semantic HTML documents and applied Tailwind CSS for styling and responsiveness. This role ensured the website's visual appeal and consistent layout across devices.

JavaScript Developer: Haque Nasim Ul

Implemented dynamic functionalities such as the countdown timer for the event, accordion toggles for the program schedule, and the gallery lightbox for image interactivity.
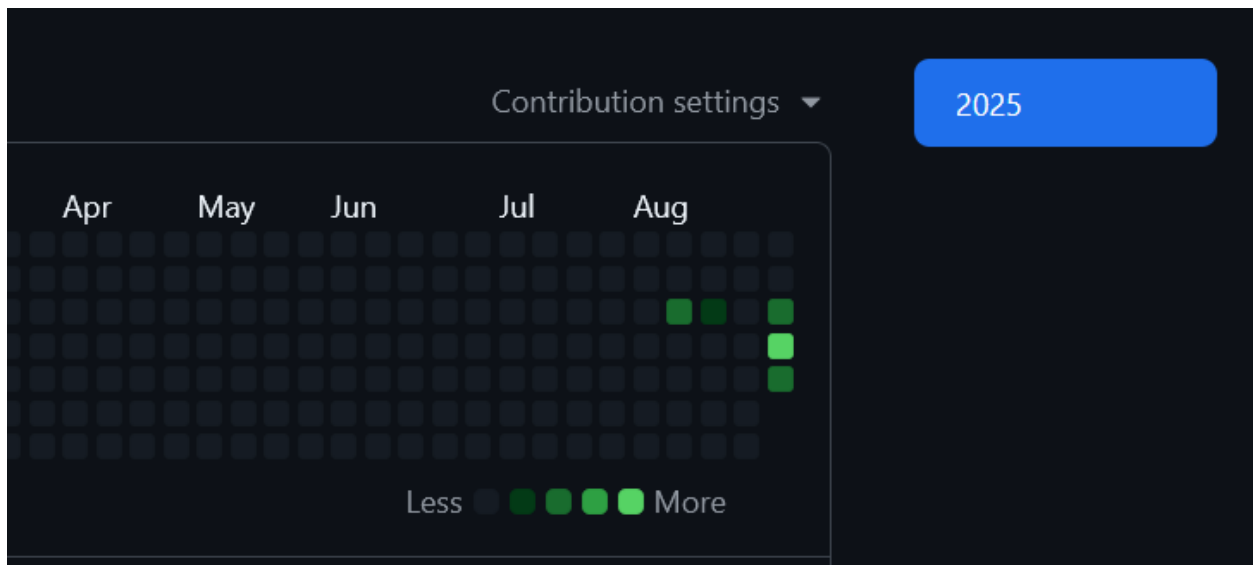
UI/UX Designer: Fahim Arafatul Amin

Designed wireframes, selected appropriate color palettes, and ensured the overall user experience was intuitive. Accessibility principles such as color contrast and font sizing were tested against WCAG 2.1 guidelines.

Content & Documentation Specialist: Rana Md Masud

Drafted textual content for the website, focusing on summit details, ethical considerations, and accessibility statements. Additionally, the specialist prepared the README.md file, which serves as the technical and project documentation.

**Collaborative Practices:**



The team used GitHub for source control, allowing version management and real-time collaboration. Branching strategies were employed to avoid conflicts, with regular pull requests reviewed by peers. This simulated industry-standard practices and allowed team members to gain practical experience in collaborative coding.

Weekly meetings and communication channels (via Slack/Discord) were established for task distribution, troubleshooting, and collective decision-making. Such practices align with Agile methodologies, emphasizing iteration, feedback, and adaptability.

**Design & Ethical Justification:**

Accessibility and Inclusivity

One of the most significant aspects of modern web development is ensuring accessibility. The ASEAN Summit 2025 website was designed with the following measures:

Semantic HTML elements (e.g., `<header>`, `<main>`, `<section>`, `<footer>`) to enhance screen reader compatibility.
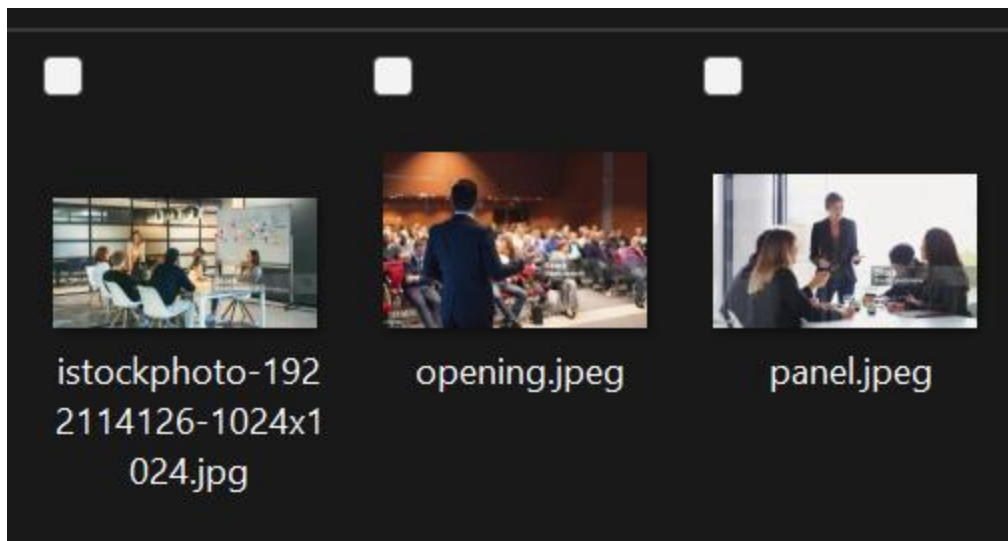
Responsive design using Tailwind's utility classes to accommodate users across desktops, tablets, and smartphones.

Readable typography and contrast for users with low vision.

Inclusion of accessibility notes in the "About" page, emphasizing live captioning and wheelchair accessibility at the summit venue.

These considerations align with the Web Content Accessibility Guidelines (WCAG 2.1), which advocate inclusive web experiences for individuals with disabilities.

**Ethical Considerations:**



istockphoto-192
2114126-1024x1
024.jpg

opening.jpeg

panel.jpeg

Ethical web design extends beyond accessibility and includes privacy, intellectual property, and responsible data collection. The project addressed these through:

Privacy Safeguards: The contact form was designed as a demo, with no backend data collection to prevent misuse of personal information. For production, services like Formspree or Google Sheets could be integrated with explicit user consent.

Copyright and Fair Use: Multimedia placeholders (images, videos) were sourced from Unsplash and YouTube, both of which permit educational reuse with attribution. This prevents copyright infringement.

Transparency: An ethics/privacy page was included, clarifying data usage, copyright compliance, and accessibility commitments.

**Cultural Sensitivity and Sustainability:**

Given the international nature of ASEAN events, the website adopted culturally neutral design choices:

Imagery depicting ASEAN member states was respectful and representative of diverse cultures.

Neutral language was maintained to ensure inclusivity.

Themes of sustainability and climate resilience were highlighted to reflect ASEAN's commitment to global ethical concerns such as climate change and economic inclusivity.

By embedding these ethical justifications into the design, the project exemplified not only technical competence but also moral responsibility in digital development.

**Conclusion:**

The ASEAN Summit 2025 website project demonstrates how academic web development assignments can simulate real-world professional practices. Through careful planning, structured collaboration, and the application of ethical principles, the project achieved its objectives of delivering a responsive, multimedia-rich, and accessible event website.

From a technical perspective, the use of Tailwind CSS, semantic HTML, and JavaScript interactivity enabled the creation of a visually engaging and functional platform. From an ethical standpoint, the project adhered to best practices in accessibility, data privacy, and cultural inclusivity. Furthermore, team collaboration using GitHub and Agile-inspired workflows prepared members for professional software development environments.

Ultimately, this project serves as evidence of how academic exercises in web development can produce outcomes that balance technical skill with social responsibility. It highlights the role of digital technologies in promoting sustainable futures and underscores the importance of inclusive design in global communication.

**References:**

World Wide Web Consortium (W3C). (2018). Web Content Accessibility Guidelines (WCAG) 2.1. Retrieved from [https://www.w3.org/TR/WCAG21/](https://www.w3.org/TR/WCAG21/)

Krug, S. (2014). Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability. New Riders.

Nielsen, J. (1994). Usability Engineering. Morgan Kaufmann.

ASEAN Secretariat. (2023). ASEAN Key Initiatives on Sustainable Development. Retrieved from [https://asean.org/](https://asean.org/)

README.md, ASEAN-Summit-2025 Group Project.

index.html, ASEAN-Summit-2025 Project Website.

Privacy Policy: https://www.adobe.com/privacy/policy.html

Adobe Privacy Choices: https://www.adobe.com/privacy/opt-out.html