ICT26 Web Development

Tutorial 3
Ethical Web Principles and Accessibility

Overview

This week's lab exercises:

- Understand the ethics and its role in web development.
- Understand the ethical web development principles
- Apply the ethical development principles to website.
- Test accessibility issues using Lighthouse or WAVE.

Guidelines

- Create a folder "ICT726_Tutorial3" in your computer for this tutorial.
- Write the report with relevant screenshots in response to the tutorial questions in Tutorial 3 word/pdf file.

Exercises 1: Ethics in Web Development

a. **Core Principles Review:** Based on the lecture, explain why each of the following ethical principles is important in web development:

1. User Privacy
2. Transparency
3. Inclusivity
4. Truthfulness and Accuracy

b. **Application to Business Scenario:** Reflect on your Assessment 3 business scenario. Identify one potential ethical issue related to each principle discussed in lecture and suggest how you would address it before beginning development.

Exercises 2: Reading and Summarise

a. **WCAG Standards**: Review the Web Content Accessibility Guidelines (WCAG). Identify at least two accessibility issues that might arise in your business scenario. Explain how these could affect users and suggest solutions.

b. **W3C Ethical Web Principles**: Read the W3C Ethical Web Principles. Discuss how these principles can guide you in making ethical design decisions for your business scenario.

c. **Review Before and After Demonstration:** Compare the before and after example of website available on (https://www.w3.org/WAI/demos/bad/Overview.html). Summaries the takeaways from the comparison.

Exercises 3: Apply Ethical Principles

a. **Privacy and Consent:** Describe how you will implement privacy controls for your website. Consider the following:
   1. How will you ensure users understand what data is collected and why?
   2. How will users be able to control their data or opt out of certain data collection?
b. **Transparency in Advertising:** If your website will feature advertisements or affiliate links, outline how you will clearly communicate this to users to maintain transparency.

Exercises 4: Accessibility Testing

Use Lighthouse or WAVE to test a sample website's accessibility (you can select any existing website). List the accessibility issues identified by the tool. Share the screenshots of the websites and issues identified.

Exercises 5: Ethical and Accessible Design Strategy

a. Identify one ethical challenge you may face when converting your static website to a dynamic one. How can you address this challenge in your development plan?
b. For your business scenario, describe at least two accessibility features you plan to implement. Justify why these features are important for your users.

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