



ENGINEERING
HONORS PROGRAM
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CikguHub: an accessible AI-driven talent development platform for Malaysian teachers

Students: Yingqi Tao (Honors Capstone), Christopher Kok, Gregory Croisdale, Jacquelyn Schmidt, Anmol Mansingh
Academic Advisor: Anhong Guo
Electrical Engineering and Computer Science department

Introduction

Edvolution, a not-for-profit, has been working closely with Malaysian Ministry of Education (MME) to initiate projects and programs that “build transformative leaders, competent educators, and effective community builders in schools.” However, there is no one centralized learning and development platform that provides access of these programs and projects to various stakeholders, such as teachers, administrators, and Malaysian government officials. Therefore, our project is to create CikguHub, a people empowerment website that uses human-AI partnership to recommend personalized learning materials and generate competency scores and feedback.

Partnering with Edvolution and powered by AI, CikguHub would help teachers identify and understand their areas of improvement, find and learn from high-quality learning materials to improve their skills, and get feedback for their works. It would also help administrators and government officials to assess teachers’ competencies at scale and manage teaching resources.

Objectives

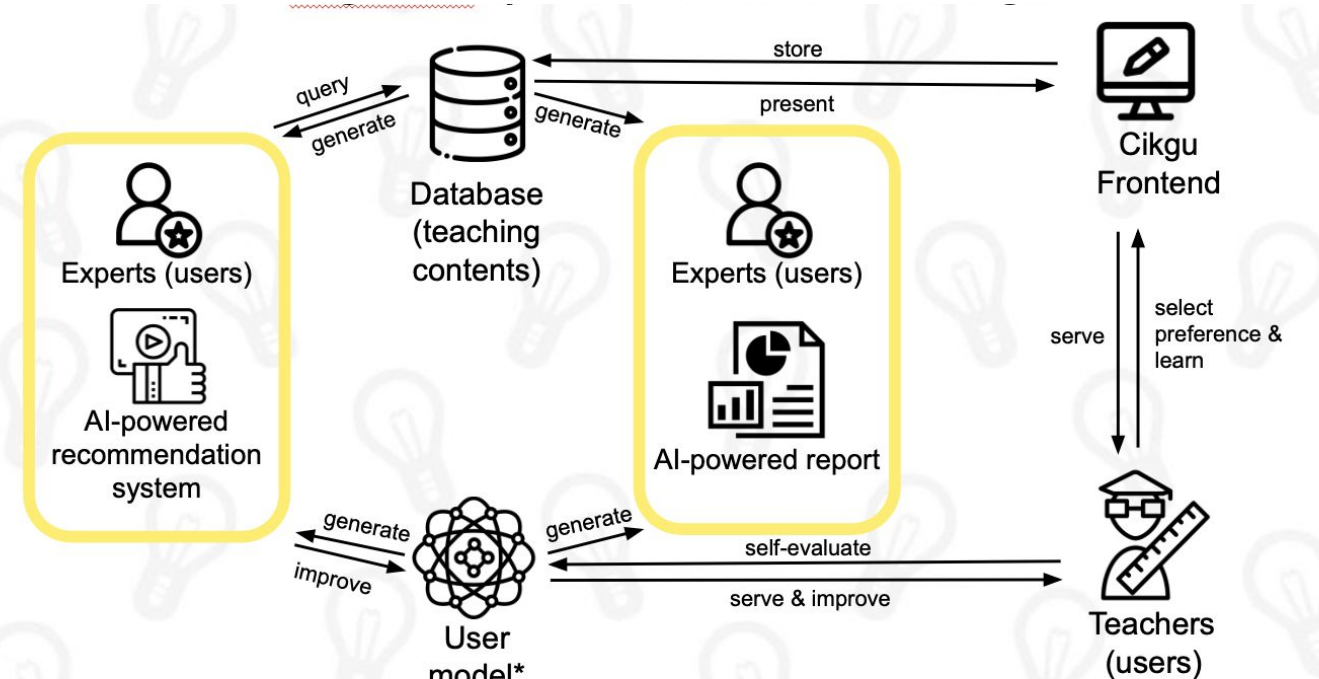
My responsibilities and contributions to the project are:

- Research, design, and implement the system-user interaction model
- Research, design, and implement the UI/UX of the report generation parts of the website
- Ensure the website’s responsiveness and accessibility

Methods



System-User Interaction



* User models reflect standards set by Malaysian government for the roles of teachers (planner, guardian, mentor, motivator, and assessor)

Figure 1. (up) CikguHub’s system-user interaction design

UI/UX of Report Generation

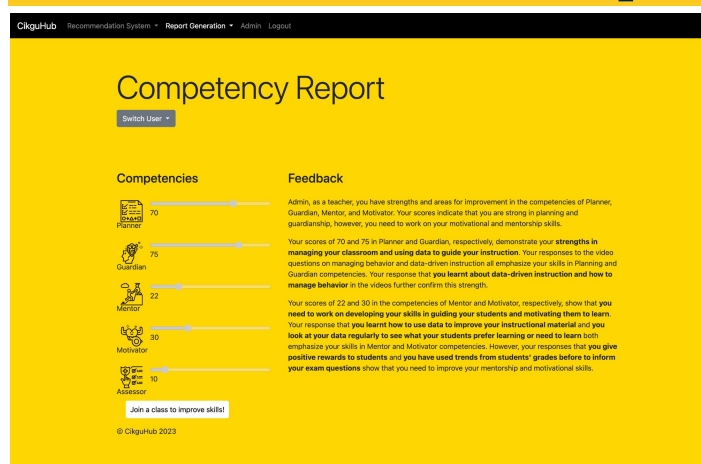


Figure 2. (left) CikguHub’s report interface

Teachers: viewable only
Experts: viewable and editable

Responsive, Accessible Web

CikguHub is responsive, meaning the web pages can alter their layout and appearance to suit different screen widths and resolutions. It is also accessible, compliant with Web Content Accessibility Guidelines (WCAG), and follows the POUR principle (perceivable, operable, understandable, and robust) for individuals with disabilities

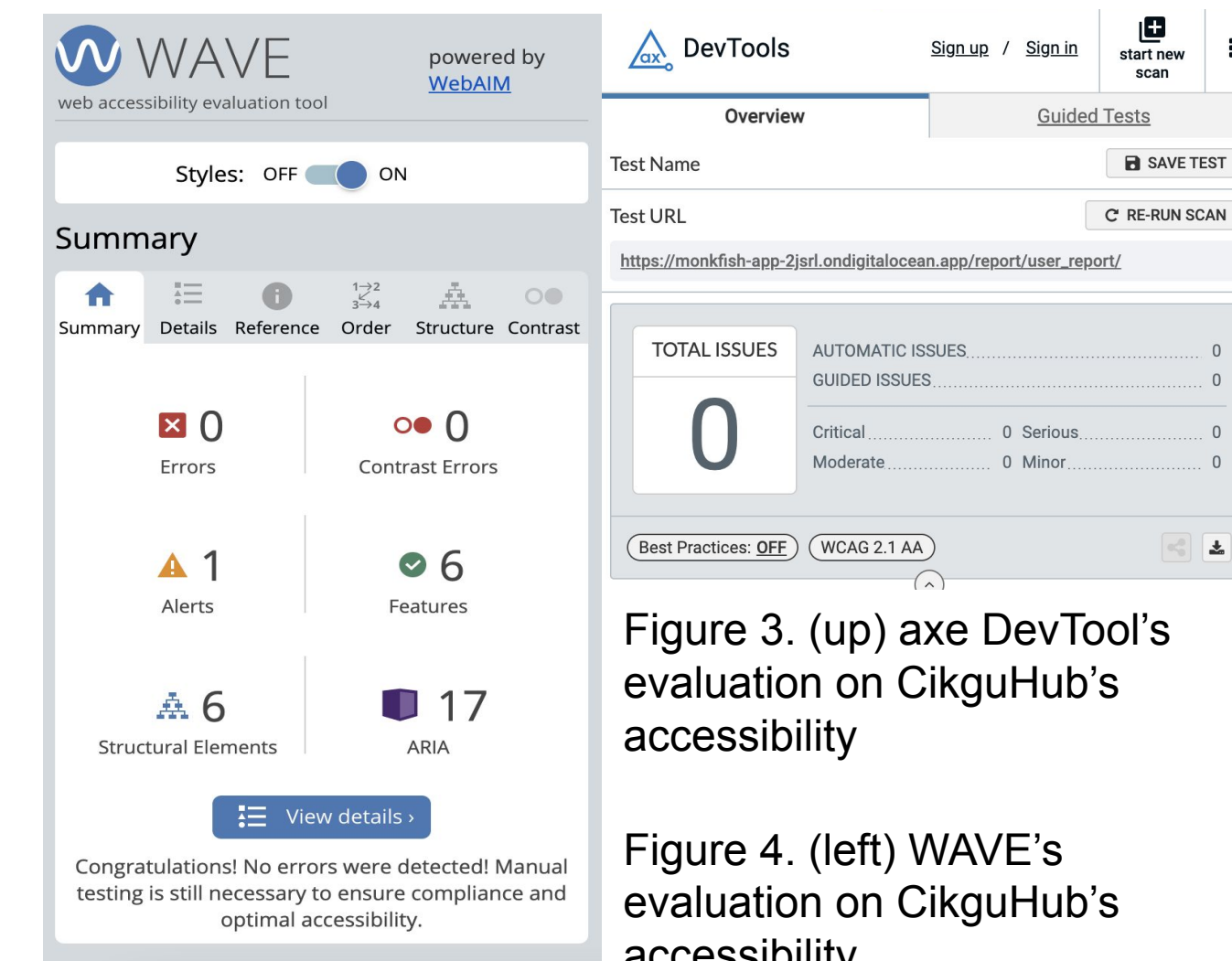


Figure 3. (up) axe DevTool’s evaluation on CikguHub’s accessibility

Figure 4. (left) WAVE’s evaluation on CikguHub’s accessibility

Vision & Acknowledgment

CikguHub’s long-term significance is to support the MME’s aspiration of creating “Scholarly Teachers”, who have the drive and initiatives to continuously up-skill themselves.

Special thanks to all team members, Professor Anhong Guo, Chen Liang, all staff members in the CoE Honors community, and Edvolution for their invaluable help and guidance they provided to me throughout the experience.