

## **Accessibility Report**

### **Team magic conch shell's Library Management System**

#### **1. How our program adheres to Principle of Universal Design**

##### Principle 1: Equitable Use

Our website pages for each kind of user (student/staff) are identical. In terms of privacy, each user would have own username and password. Although staff may know about students' temporary passwords, it is possible for the students to modify the password by themselves easily.

##### Principle 2: Flexibility in Use

In the student's and staff's home pages, there are choices of methods that can be used by the users. For example, student's home page contains methods like: "Borrow Book", "Return Book", "Extend return date" and "Change Password". In terms of accuracy, we make our fonts and buttons as large as possible to make sure that they can click on the button accurately. However, we can still improve our GUI by moving the positions of the slide bar. Currently our slide bar is at the right side of the page, however, considering the use of left-handed people, they may prefer the slide bar to be at the left side.

##### Principle 3: Simple and Intuitive Use

The layout of our GUI is relatively simple that eliminates unnecessary complexity. The website starts with a user-login page and once the users log in, they would be direct to a home page and slide bar would contain their account information, which is a setting similar to many websites, which is more consistent with users' expectations. We also arrange information consistent with its importance, for example, in the student home page, the arrangement of all the functions that can be selected is consistent with the frequency that student users may use them. Currently our program is in English, however, in the future we may considered to expand our program with more language options to adhere more to this principle.

#### Principle 4: Perceptible Information

For the GUI, we choose a dark background with a light-color font for our pages to provide adequate contrast between essential information and its surroundings. We also make the fonts and buttons large so they can be easily identified by users. The user's account button on the top right corner is in green, which gives enough contrast for the user to perceive. In the future, however, we are planning to add more functions for students with sensory limitations, for example, providing audio options for each button.

#### Principle 5: Tolerance for Error

We arrange our elements in a way that is consistent with the frequency that student users may use them. Users of our program would have little possibility to encounter hazard, however, there's warning and notice messages for them under certain conditions. For example, if the borrow is unsuccessful for a student, he/she would receive a notice that this book is not successfully borrowed.

#### Principle 6: Low Physical Effort

The operating force and physical effort of our program is reasonable, since our GUI is HTML websites that is generally used on laptops and cellphones, which only requires a few clicks with mouse or fingers. However, if the students or the staff operating the system for a long time, they may get tired. In the future it is possible for us to add a pop-up message that reminds them to stand up and stretch a bit if their screen time exceeds a limit (e.g. 30 mins).

#### Principle 7: Size and Space for Approach and Use

This principle may not quite relate to our program because it focused more on the hardware devices. However, since our program works on devices like laptops in libraries, it is necessary for the library managers to be aware of the positions of these devices and whether they adhere to this principle.

## **2. Our program's targeting population**

We would most likely to advertise or sell the license of our program toward institutional libraries. Our program is designed to create a secure and convenient environment to help students find transparency in borrowing by showing detailed information of books as well as their position status while simplifying the library workers' administrative hassles. With our program, we allow students to search and borrow books based on categories, book author, ISBN and so on; it also enables the library workers to manage books (e.x. add new books/ delete a book) and book borrowers (i.e. user credits, borrowing records, return deadline extension, book returning status etc.) in a more efficient way.

## **3. Who is less likely to use our program**

Our library management system is designed for institutional libraries to manage book borrowers (i.e. students), library workers as well as different types of physical books. Our program involves a lot of interactions with staff and students, so it might not be suitable for the libraries that allows self-borrowing services. Besides, libraries that do not offer loan services (e.x. libraries that only store rare original drafts) or libraries that mainly offer online scanned versions or e-books to their members are less likely to use our management system.