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| **COMP3851B**  **Assignment** **2**  **<New** **Student** **Orientation** **Website>**  **Submitted** **by** **Zhang** **XiaoLong** **c3416407**  **<** **Group** **Name** **>** **Panda**  **1.** **c3416391** **Linfeng** **Lu**  **2.** **c3416411** **Yinglin** **Fang**  **3.** **c3416648** **YiDali**  **4.** **c3416405** **Pan** **Jinke**  **5.** **C3416407** **Zhang** **Xiaolong** |

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**1. Team Information**

Zhang XiaoLong (PM) -- Responsible for communicate with teammates and lead the work

Yi DaLi (DPM) -- Responsible for Front pages.

-- Responsible for the database

Pan JinKe

Lu LinFeng -- Responsible for CMS.

Fang YingLin -- Responsible for Front pages.

**2.** **Background**

In the rapidly evolving landscape of digitalization, the field of computing and information systems has seen significant advancements, especially in the application of educational technologies. Orientation programs for new students, a critical component for smoothing the transition into higher education, are increasingly leveraging digital platforms. These platforms offer more interactive, accessible, and comprehensive experiences, significantly enhancing students' adaptation process.

Despite the key role existing orientation websites play in providing students with campus resources, course planning, and community engagement opportunities, they often fall short. The limitations mainly revolve around lack of interactivity, insufficient personalization, and constraints on user experience. Addressing these issues, this project aims to develop a new student orientation website employing HTML, CSS, and jQuery for the frontend, integrated with Visual Studio 2017 and SQL Server for database management. Utilizing .NET's SqlConnection class facilitates efficient data management and operation within the site. Moreover, the project enhances user interactivity through the use of cookies for recognizing current logged-in users and Ajax for implementing features like liking posts, substantially improving the website's interactive capabilities and personalized services.

Particularly, the Community section of the project is realized through a series of advanced technological implementations. In this segment, users can post comments, share experiences, and interact with other members. The introduction of features such as liking enhances the vibrancy of the community, making every interaction simpler and more direct. This method of fostering community interaction through technological means effectively strengthens new students' sense of belonging to the university community.

By employing these technological solutions, the project seeks to overcome the limitations of existing platforms and provide new students with a richer, more interactive, and personalized onboarding experience. This not only aids in better integrating students into university life but also lays a solid foundation for their academic journey ahead. In summary, this student orientation website project utilizes the latest web technologies to offer an innovative solution, meeting the urgent need for digitization of orientation programs in higher education while maintaining a high degree of originality and quality.

**3.** **Aims**

The project is structured around a set of progressive goals, designed to scaffold towards a comprehensive orientation experience:

**Basic goals that must be completed (low difficulty) :**

**Goal 1: Provide information that new students need**

In the previous plan the project should have developed a comprehensive guide for new students detailing the university's courses, necessary preparation and key deadlines. However, in the process of implementation, we have made a new definition for new students. They not only need school life, but also many international students in our school, who need to integrate into the life in Singapore. In addition, the school will arrange various courses and contact students by email. So we reduced the content of the course a lot and added more information about life in Singapore. This will help new students understand and guide them through their first steps into university life in Singapore, thus better preparing them for their journey to start university life.

**Goal 2: Simplify the accommodation process**

The project will streamline the housing selection and application process and improve student

satisfaction by providing clear, easily accessible accommodation information. This will take

the pressure off new students looking for accommodation and allow them to focus on

academic achievement.

**Goal 3: Enhance campus safety and student well-being**

The program is designed to provide students with comprehensive safety guidance and emergency contact information, ensuring that they are familiar with campus safety measures and emergency response procedures. At the same time, by providing comprehensive health and wellness resources, the program will support students' physical and mental well-being, reduce health-related absenteeism, and create safe and supportive learning environments. In the process of implementation, the project need to make some adjustments. There will be school regulations on campus for restriction, but there will be some legal differences caused by cultural differences after entering Singapore. The website is therefore designed to focus on the error-prone parts of Singapore, and the website only need to provide the contact number of the school, which students can call if they need it.

**Goal 4: Provide financial support information**

The program will provide clear financial guidance so that students have a clear understanding of tuition and scholarship opportunities. This helps students organize their financial planning.

**Best goals to have (Medium difficulty) :**

**Goal 5: Ease of navigation on campus**

To help students familiarize themselves with the campus layout, detailed maps will be

provided. This will enable students to confidently navigate the campus independently,

accelerating their adjustment process and thus integrating into campus life more quickly.

**Goal 6: Strengthen academic support**

The project will establish academic support services, including library resources, to assist students in different disciplines. This will enhance their learning ability and lay the foundation for improved academic performance and success. However, in the implementation, the website cannot directly access the external data, so the project need to adjust this aspect, the project provides the content of each subject and the link of the school's major. Students can then click on the link directly to the school's official website for information.

**Goal 7: Develop a responsive management system**

The project will develop a responsive management system that allows administrators to

update information on all platforms in a timely and efficient manner. This will ensure the

timeliness and accuracy of information and improve management efficiency.

**Goal 8: Promote community engagement to support new student exchanges**

The project will create and promote a platform for community engagement, particularly to

support exchanges among new students. The platform will provide an environment where

new students can connect with each other, share their experiences, and solve problems they

encounter during campus life. By participating in social events, clubs, and organizations, new

students are not only able to find common interests, but are also able to gain support from

peers and the community in the face of challenges. The ultimate goal is to strengthen the

resilience of new students through the power of the community to ensure that they are able to

succeed in college life.

**Additional goals (high difficulty) :**

**Goal 9: Implement AI-enabled systems**

The project will develop an AI chatbot to provide instant support, able to answer simple

questions, so that students can get the help and information they need at any time. During the programming, within the research, find out this is a guiding website, no need for the AI system, then changed AI system into a search box.

**Goal 10: Create a personalized information platform**

The website will have a personal center which include the basic information and students can see the comments which they post in community.

With these foundational aims, the project strive to establish a robust platform that caters to the

informational and navigational needs of new university students.

**4.** **Methods** **and** **Activities**

**Goal 1: Provide information that new students need**

This website summarized the common problems that students may encounter when they first arrive in Singapore. It provided answers based on experiences and the information online. it is placed in the section on the homepage for students to quickly search

**Goal 2: Simplify the accommodation process**

Addressing housing concerns, website show some apartment options which offered by PBS. If student not satisfied with these. At the same time, the website also provides other accommodation information for students to have more choices

**Goal 3: Enhance campus safety and student well-being**

Website provide the emergency contact phone number of the school and also introduce the laws that are easily violated in Singapore, so that students can better avoid illegal activities.

**Goal 4: Provide financial support information**

Some outstanding students may care about scholarship, in order to meet the needs of them. The website provided a description of the scholarship and a page link for access to detailed information.

**Goal 5: Ease of navigation on campus**

We found the geographical location of the campus on Google and provided several modes of transportation to reach it. At the same time, the website also provides detailed maps of the campus. This helps students quickly find information about the campus and their own classrooms

**Goal 6: Strengthen academic support**

Some students may lack familiarity with their major, website has a list for them. Student can view brief information here, and if they want more detail they can click the link below the their major. At the same time, students can also click on the link to search for more detailed information.

**Goal 7: Establish a responsive management system**

Website have a CMS system using a database, which can help us better manage page information and make modifications, additions, and deletions as needed. This is an indispensable part for websites.

**Goal 8: Promote community participation**

Website have a forum which created by database, where students can communicate with each other and like helpful comments.

**Goal 9: Implementation of AI systems**

Website have search box that allows students to quickly search for the information they want on the homepage and enter the detailed page.

**Goal 10: Create a personalized information platform**

There is a personal center where students can modify their personal information on website to help other students better understand themselves.

**5.** **Results**

Home page functional requirements:

Displays school promotional videos, Singapore guide, About Us and more.

Provide a main menu or navigation bar for easy access and navigation.

Freshman feature requests:

Provides drop-down menus with major options, payment options, locations, upcoming events, scholarships, health and insurance, family insurance, clubs, and a campus map.

Make sure the menu is expandable and collapsed and users can easily select the information they need.

Personal center functional requirements:

Allow users to modify personal information.

Provides the ability to view favorites, comments and followers.

Ensure users can easily manage their profiles and interactions with other users.

Community functional requirements:

Allows users to post articles and opinions.

Provides a Read More button to view article details and join the discussion.

Provide a Like button to express likes by liking articles or opinions.Login and registration functional requirements:

Provides a login interface that allows users to log in using email and password.

Provides a registration interface that allows new users to create an account and set an email and password.

Restrict non-logged-in users to only access limited content, and force login to access Community and Personal Center content.

### Result analysis

User experience evaluation: Through user testing and user feedback, we found that users have good feedback on the overall experience of the interface. Users find the interface easy to navigate and the features easy to understand and use. They are satisfied with the promotional video and Singapore guide on the homepage, and believe that this information is very helpful for them to understand the school and the surrounding environment.

Functional completeness: After testing, we confirm that all implemented functions are as expected and meet the needs of users. The various options available in the freshers menu, such as professional information, payment options, event calendar, etc., are smoothly displayed and provide relevant information.

Performance evaluation: The performance of the interface is good, the page loading speed is fast, the response time is short, and the system runs stably. Users can use the interface smoothly across different devices and network conditions.

User participation: The community function attracts user participation, and users actively publish articles, comments and likes, forming a good interactive atmosphere. Users discuss and communicate through the community function, which promotes information sharing and communication between users.

Interface effect evaluation: The visual effect and design quality of the interface are affirmed by users. Users think that the overall appearance of the interface is beautiful, and the color scheme and layout are also well received.

Whether functional requirements are met: All previously defined functional requirements have been successfully implemented. Users can access relevant information through the homepage, use the freshman menu to find the information they need, manage profiles and participate in community discussions.

User satisfaction: Based on the above evaluation results, users have a high overall satisfaction with the interface and believe that the interface can meet their needs and provide a good user experience. Users are satisfied with the design and functionality of the interface and look forward to further improvements and optimizations.

## Limitations

Security considerations: The interface may have security vulnerabilities or risks of data leakage, especially when it involves users’ personal information or sensitive data. Appropriate security measures must be taken to protect the security and privacy of user data.

Functional limitations: Certain functions may be affected by technical or resource limitations and cannot fully implement all user needs. The extent to which functionality is implemented must be determined based on priorities and available resources.

User feedback and changes in needs: User feedback and needs may change over time, and continuous interface optimization and improvement may be required. Must be able to respond to user feedback in a timely manner and make corresponding adjustments based on actual conditions.

Performance issues: The interface may face slow loading or delayed response times, especially when dealing with large amounts of data or complex operations. This may impact user experience and require performance improvements through optimization of code or server resources.

## Extensions and Modifications

## Security enhancement: Strengthen the security of the interface to prevent potential security holes and data leakage risks. Technologies such as HTTPS protocol, data encryption, and authentication can be used to protect the security and privacy of user data.

Function expansion: Gradually expand the functions of the interface based on user feedback and changes in needs. New functional modules can be added, existing functionality improved, or third-party integrations introduced to meet the changing needs of users.

Enhanced flexibility and scalability: The interface is designed with future extensions and modifications in mind, making it more flexible and scalable. The modular design and configurability architecture allow the interface to easily adapt to different needs and changes.

Performance Optimization: Optimize code and server resources to improve the loading speed and responsiveness of the interface. Use front-end optimization technologies, such as image compression, resource caching, etc., to reduce page loading time and improve user experience.

**6.** **Ethics** **Considerations**

Throughout the project, strict attention was paid to ethical considerations, ensuring adherence to principles of privacy protection, data security, fairness, and user rights.

In terms of safeguarding privacy, the significance of protecting user data in all project facets was acknowledged. This involved crafting and enacting a comprehensive privacy policy to inform users about the types of data collected, its intended use, and their options for opting out. Furthermore, robust data protection measures, including encryption protocols and access controls, were put in place to thwart unauthorized access to user data and maintain their privacy.

Ensuring the security of user data was a top priority. Strong security measures, such as encryption protocols, access controls, and routine security audits, were implemented to safeguard sensitive user information from breaches and unauthorized access.

In the creation and development of the website, emphasis was placed on fairness and inclusivity to ensure that all users felt embraced and valued. Extensive reviews of the website's content and features were undertaken to pinpoint and rectify potential biases. By incorporating varied perspectives and feedback from stakeholders, the website was tailored to meet diverse user needs and preferences, fostering an environment of inclusivity for all.

Respecting users' rights to manage their personal data and make informed decisions about their participation was pivotal. Clear and transparent options were provided for users to control their privacy settings and consent to data collection. This empowered users to make informed choices about their interaction with the website while upholding their privacy and autonomy.

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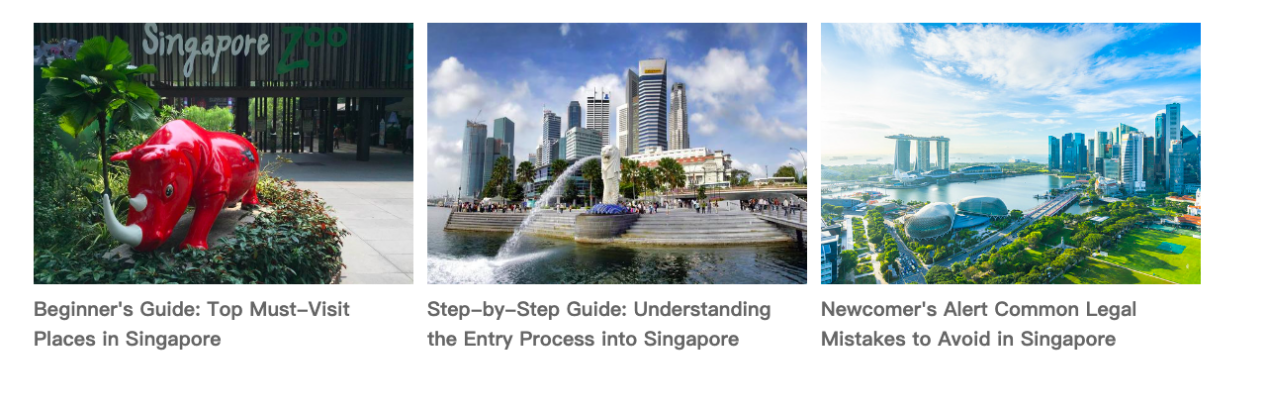
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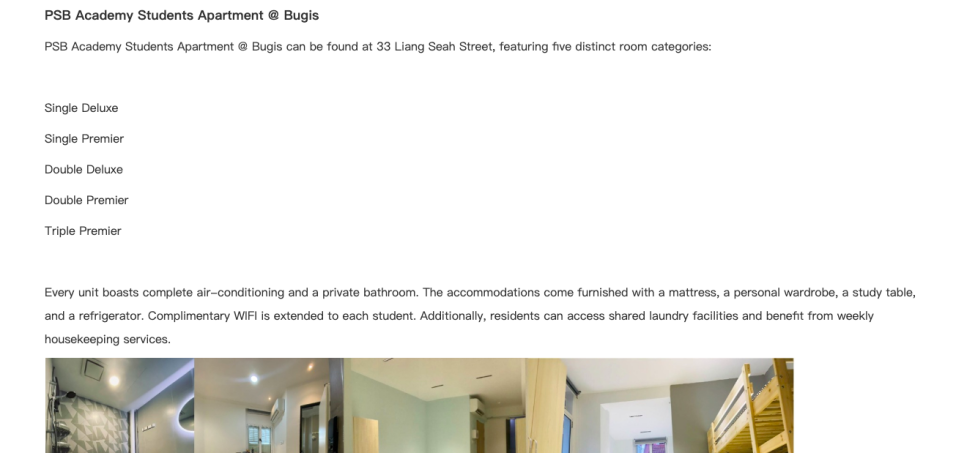
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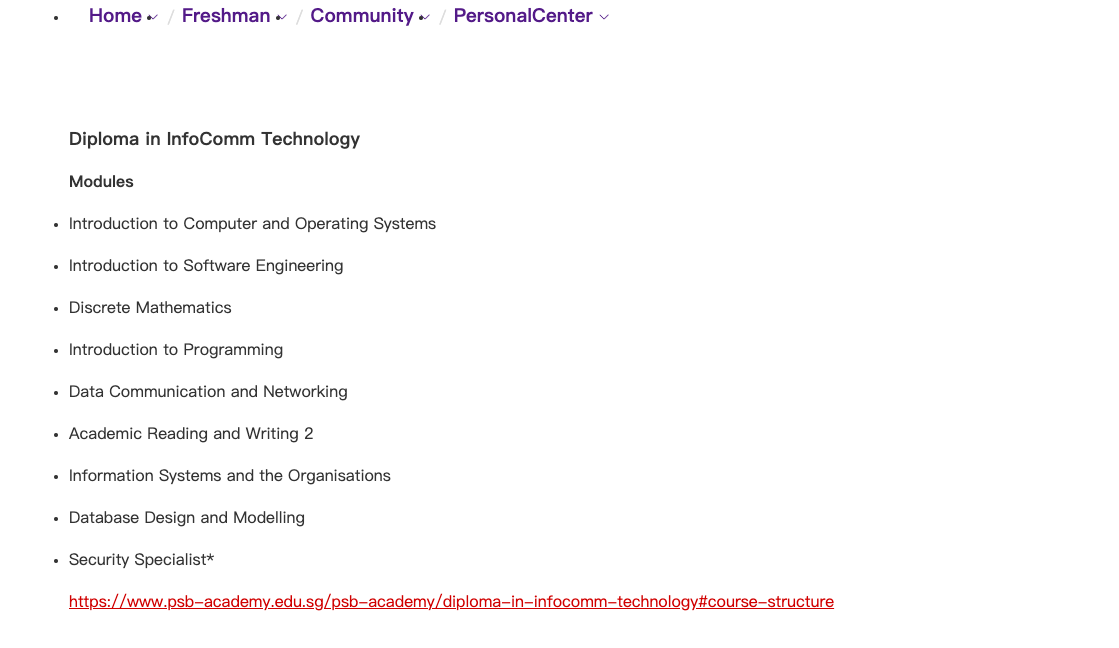
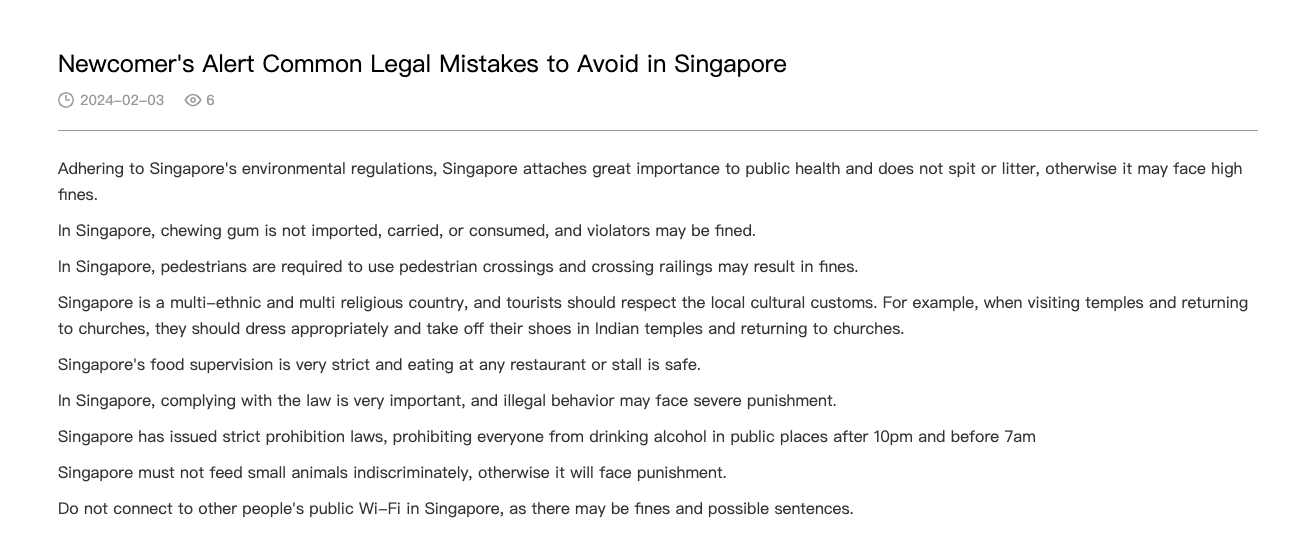
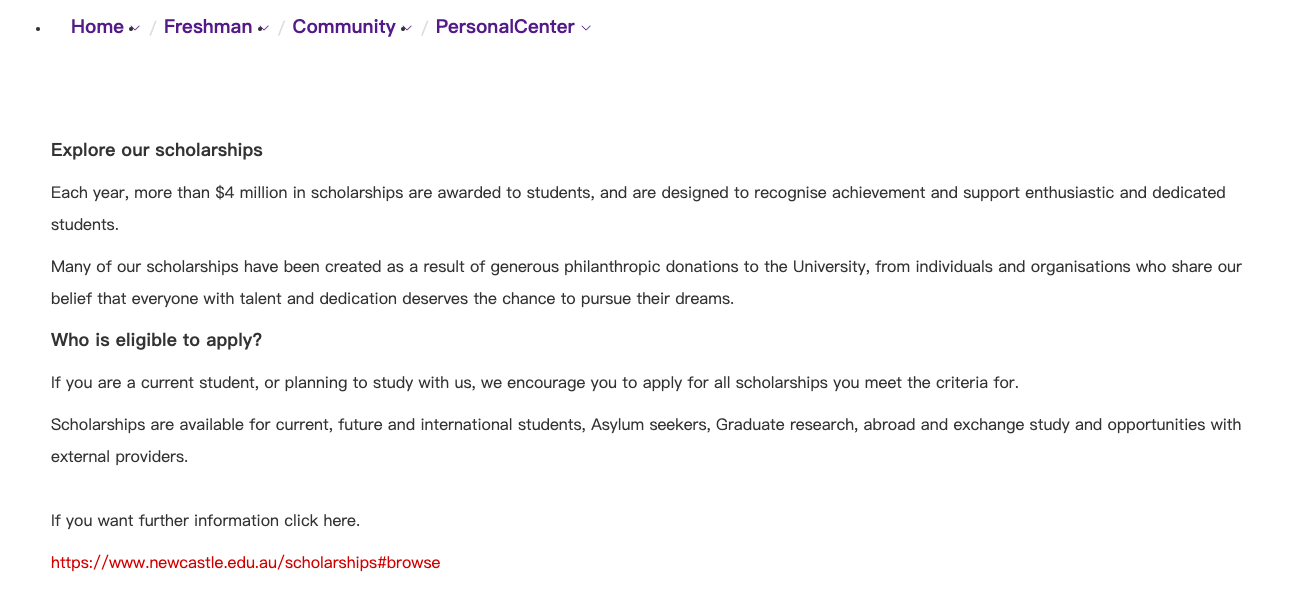
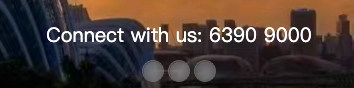
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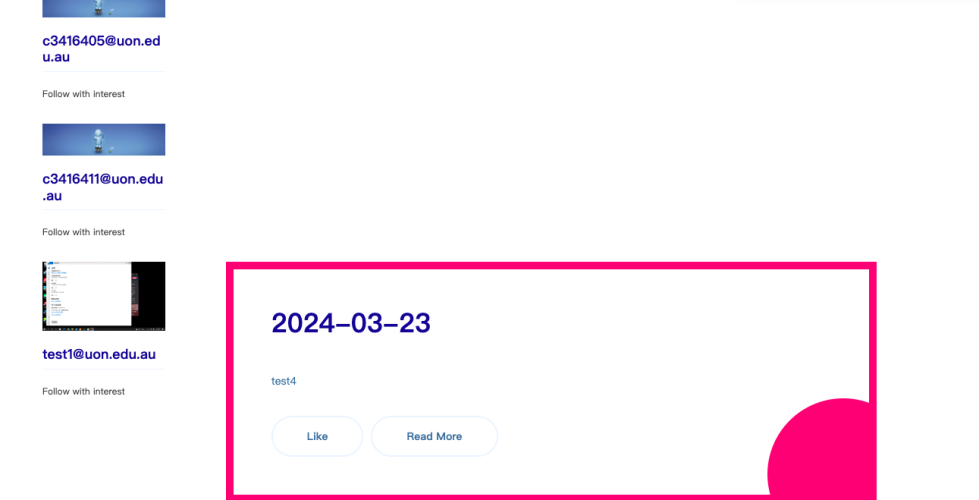
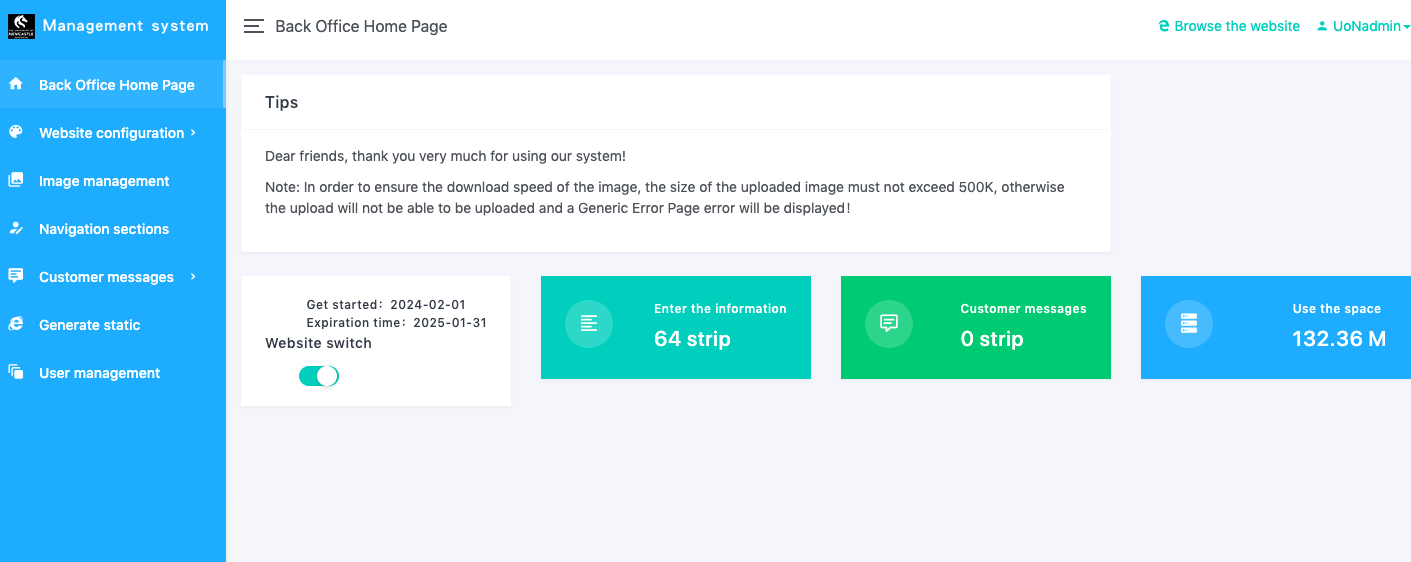
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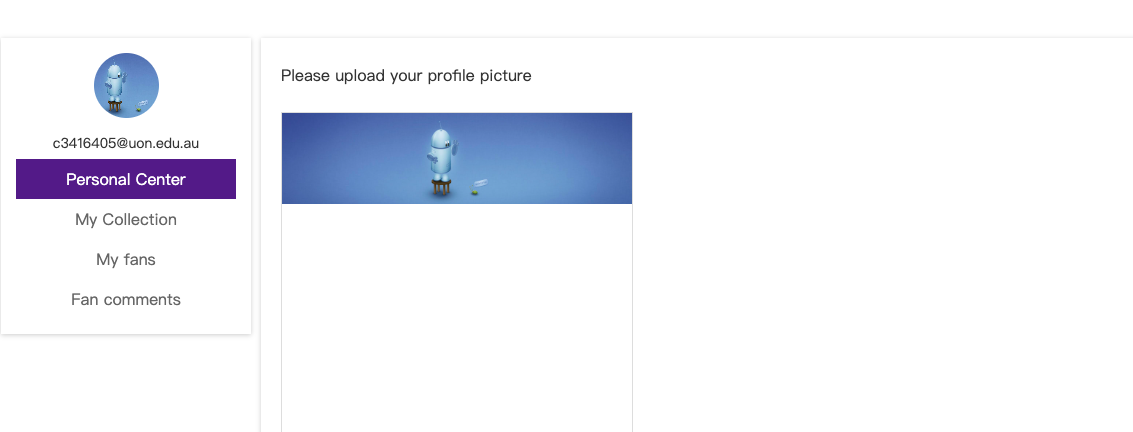
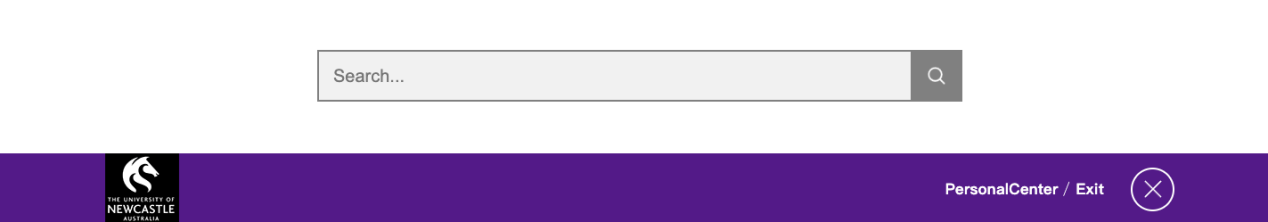
1. **Appendix**











Website:

[UON Orientation website (jshxdt.com.cn)](http://dd867760-xs.y1.d-tzj33x.jshxdt.com.cn/)  
Username: [test1@uon.edu.au](mailto:test1@uon.edu.au)

Password: 123456

Admin Username: UoNadmin

Password: 42eiXL66PkcG