

Individual Report

COMP1640 - Enterprise Web Software Development

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1. Evaluation of product and process

1.1 Evaluation of Product

The admin's list of user page user interface is designed to be simple and easy to use. It has a clear list of users with their ID, role, username, and status. This is a well-designed and user-friendly system for managing user

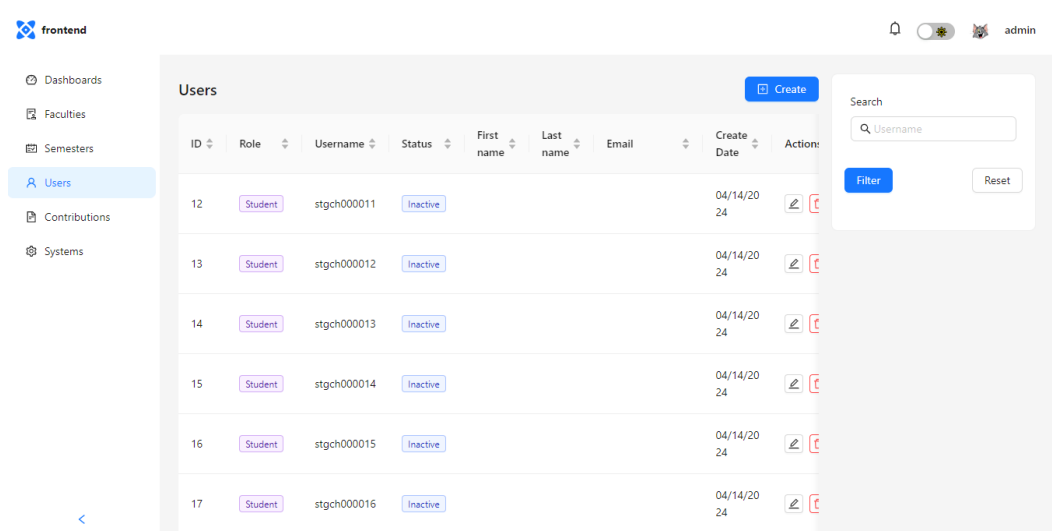


Figure 1: View list of users - Administrator role

The function works well, the interface has the big plus of being able to customize light or dark mode, and the navigation can also be collapsed, but the input form is not really optimized like the long role and faculty selection section.

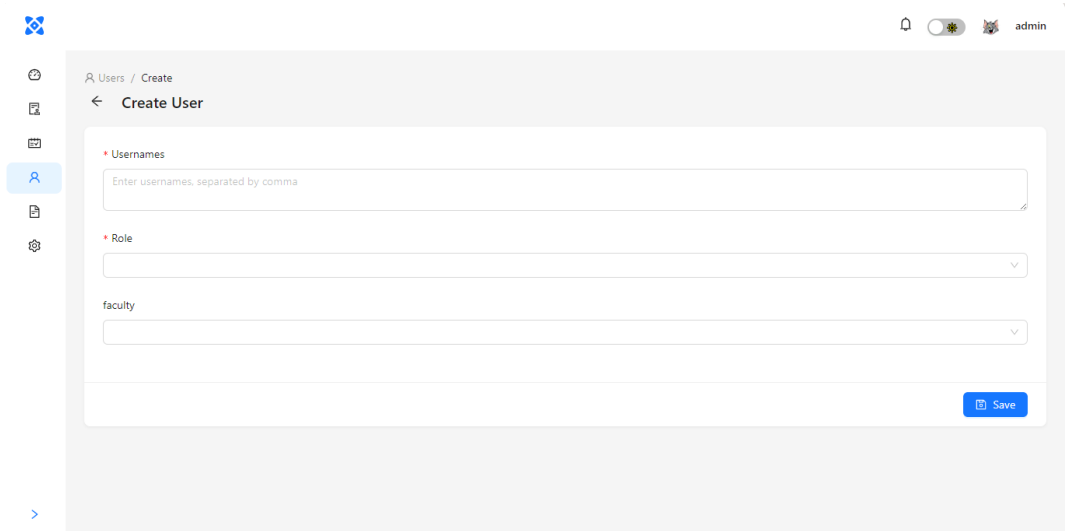


Figure 2: Create User - Administrator role

The homepage interface for students is also quite clear, helping students to immediately grasp their contributions and outstanding information. The search and sorting functions are also clear and easy to use.

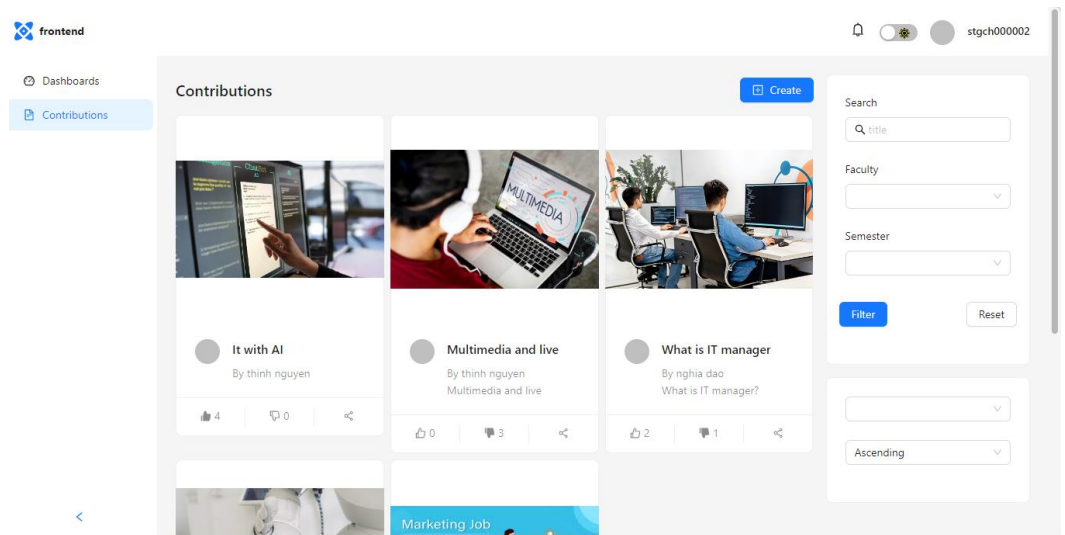


Figure 3: Home page - Student role

The function works well, but like the create user function above, the input form is not really optimal, especially for long contributions.

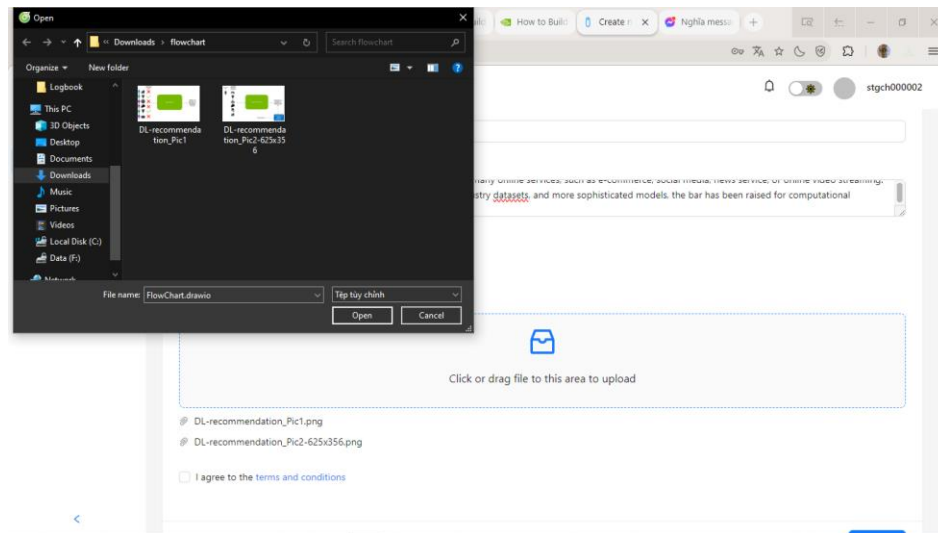


Figure 4: Upload image - Student role

The interface for viewing students' own contributions is very beautiful and fully functional. However, the page does not provide a view of articles owned by students, making it difficult to review and edit the student's own contributions

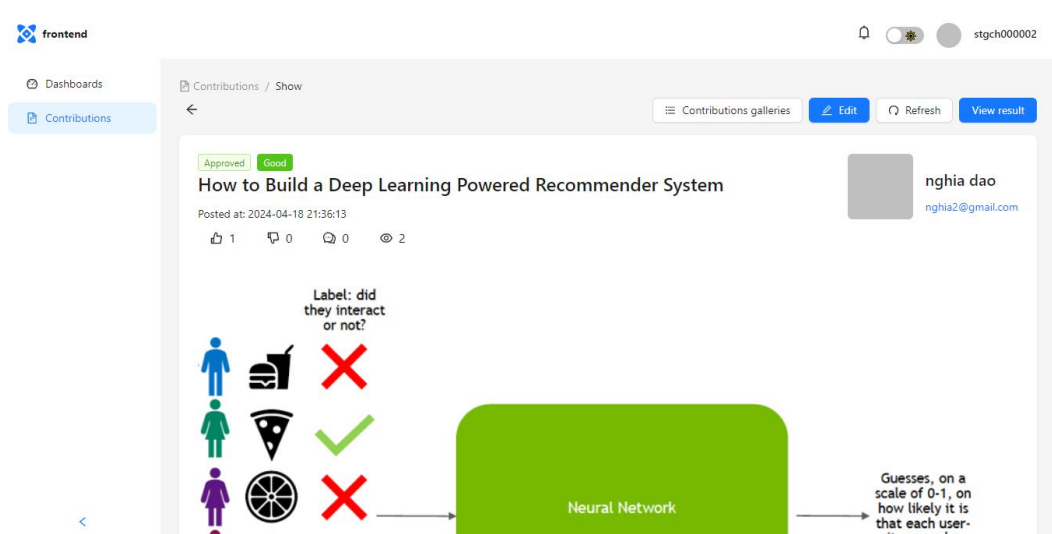


Figure 5: View own contribution - Student role

The interface for interacting with other articles, specifically comments here, is good, it fully represents the information the user needs. However, it is not really optimal when it is too long, short comments like the one in the picture will leave a large amount of white space

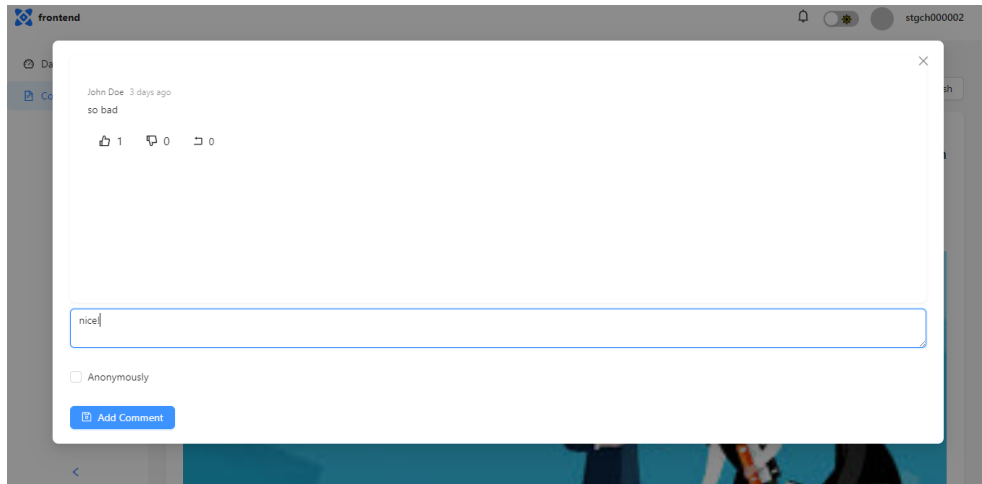


Figure 6: Comment in others contribution - Student role

Advantages of product:

- **Secure Role-Based Access:** The system ensures that only authorized users can access specific functionalities based on their roles, enhancing security.
- **User-Friendly Interface:** The interface is designed to be intuitive and responsive, allowing users to interact with the system seamlessly across different devices.
- **Efficient Communication:** Automated email notifications streamline communication between students and Marketing Coordinators, providing a more efficient workflow for both and improving efficiency.
- **Enhanced Transparency:** The system promotes transparency by allowing all stakeholders to track the progress of contributions and review feedback/comments in real-time. This transparency fosters trust and accountability among users, ensuring a fair and equitable process for selecting contributions.
- **Statistical Analysis:** The system's statistical analysis feature provides valuable insights into contribution trends, enabling faculty administrators to make data-driven decisions to improve future editions of the contributions.
- **Scalability:** Designed with scalability in mind, the system can accommodate the growing needs of the university, supporting an increasing number of contributors and publications without sacrificing performance or security.

Drawback of product:

- **Potential Technical Challenges:** Developing and maintaining a secure web-based system with complex functionalities can pose technical challenges such as bugs, compatibility issues, and performance bottlenecks. Addressing these challenges may require additional time and resources.
- **User adoption barriers:** Despite the user-friendly interface, there are some unoptimized interfaces that some users may have difficulty navigating the system or understanding the features its. This leads to resistance or reluctance to use the application.
- **Maintenance Overhead:** Regular maintenance and updates may be required to keep the system secure and functional, which could increase operational overhead.
- **Dependency on Email Notifications:** Reliance on email notifications for communication may lead to issues such as messages being overlooked or marked as spam, potentially disrupting the contribution review process. Automated processes like email notifications and data analysis also may encounter errors if not implemented and monitored carefully
- **Privacy Concerns:** Handling sensitive data such as student submissions requires robust data protection measures to safeguard privacy and comply with regulations. Any breaches or data leaks could have serious consequences for both the university and its students.

Further improvements:

- **Enhanced Reporting:** Implement more comprehensive reporting functionalities, allowing for deeper analysis of contribution trends and user behaviors.
- **Enhanced user interface:** Improve current interface weaknesses and the navigation of the user interface to ensure that users can easily find and access the features they need. Implement a clear and consistent menu structure with logical categorization of functionalities to reduce confusion and enhance usability.
- **Scalability:** Design the system with scalability in mind to accommodate future growth and increasing demand. This includes optimizing performance, scalability testing, and implementing cloud-based solutions for flexible resource allocation.
- **Enhanced Security Measures:** Invest in ongoing security assessments and updates to mitigate potential vulnerabilities and ensure that user data remains secure at all times. Implement multi-factor authentication and encryption protocols to enhance security measures.

- Enhanced user experience: Continuously improve the system's interface and functionality based on user feedback to improve usability and enhance the overall user experience. Conduct usability testing to identify pain points and implement intuitive design solutions.

1.2 Evaluation of Process

The Backlog evaluates the priority of each function well and highly detailed requirements analysis helps ensure the entire team easy to identify important function understands the system. However, dividing the functions of the prints in the table is quite complicated, making it difficult to understand.

Table 1: Product Backlog

No	As a / an	I want to	So that	Sprint	Priority
1	Student	log in / log out	to access the page that matches your role on the system.	1	High
2		submit one or more articles as Word documents	share my academic contributions with the magazine.	2	High
3		upload high-quality images to accompany my articles	enhance the visual appeal and impact of my contributions.	2	High
4		update submitted contributions	make necessary revisions or improvements to my previously submitted work.	2	Normal
5		read and agree to the Terms and Conditions	ensure compliance and understanding before submitting my contributions.	2	Normal
6		be notified via email upon successful submission	receive confirmation and acknowledgment of my contribution.	2	Normal
7		be notified via email after contribution review	stay informed about the status and feedback on my submitted work.	2	Normal
8		view total views of my contributions	track the engagement and popularity of my contributions.	3	Normal
9		interact with other contributions: like/dislike, comment	engage with and express opinions on the work of peers.	3	Normal
10		like/dislike for a comment	provide feedback on comments made by others.	3	Normal
11		avoid seeing comments with blocked words	ensure a positive and respectful interaction environment.	3	Normal
12		anonymously submit new contributions or comments	maintain privacy while sharing my work or opinions.	3	Low
13		receive email or notification for new interactions	stay updated on engagement with my contributions.	3	Low
14	Faculty Marketing Coordinator	log in to the system	access tools and features for managing contributions within my Faculty.	1	High
15		manage contributions for my Faculty	oversee and organize contributions submitted by students in my Faculty.	2	High
16		receive email notification for Faculty contributions	stay informed about new contributions from students in my Faculty.	2	Normal
17		access and review submissions within 14 days	ensure timely evaluation of student contributions.	2	Normal
18		view and select contributions for publication	choose the best contributions for publication.	2	Normal
19		interact with students in my Faculty to edit contributions	collaborate with students to enhance the quality of their contributions.	2	Normal
20		download selected contributions in a ZIP file	easily collect and manage selected contributions from my Faculty.	2	Normal
21		manage contributions by each student	organize and track individual student contributions.	3	Low
22		categorize contributions by good, normal, bad	evaluate and classify contributions based on quality.	3	Low
23		have a flexible and convenient user interface	simplify the management of student contributions.	3	Low
24	University Marketing Manager	log in to the system	access tools and features for overseeing contributions across all Faculties.	1	High
25		view all selected contributions for final review and approval	evaluate and approve contributions for publication.	2	High
26		download all selected contributions in a ZIP file	collect all approved contributions for further processing.	2	Normal
27		view reports on contributions, contributors, and percentages by Faculty	gain insights into the overall contribution distribution.	2	Normal
28		be notified if a Faculty Marketing Coordinator hasn't reviewed a submission	ensure timely evaluation and coordination within Faculties.	2	Normal
29		download all uploaded documents in CSV/Excel format	access contribution data in a convenient and exportable format.	3	Low
30		view all student contributions in different views	explore contributions based on various criteria for better analysis.	3	Low
31		view live dashboard	monitor real-time activity and engagement with contributions.	4	Low
32		export dashboard statistics to image in JPG/PNG format	save and share visual representations of contribution data.	3	Low
33	Administrator	create a new account (student, Marketing Coordinator, Marketing Manager, Guest)	manage user accounts and roles within the system.	1	High
34		lock or unlock accounts	ensure account security and control access to the system.	1	High
35		delete accounts that have been locked for a certain time	maintain system hygiene and remove inactive accounts.	1	High
36		set closure dates for each academic year	manage contribution timelines and prevent new submissions after a specified date.	1	Normal
37		view and update the list of users	maintain an accurate and up-to-date user database.	2	Normal
38		view, create, update, delete all faculties	manage and maintain the list of academic faculties.	2	Normal
39		view, create, update, delete submissions of all faculties	oversee and manage contributions submitted by different faculties.	2	Normal
40		configure Automatic system backup	ensure regular backup of system data for security and recovery purposes.	3	Low
41		customize system settings	tailor system preferences to meet specific needs, such as notification preferences.	3	Low
42		log all system activities for tracing errors	keep a record of system events for troubleshooting and error analysis.	3	Low
43	Guest User	be able to log in to the system	access limited functionalities and information as a guest user.	1	Normal
44		view selected reports from a specific Faculty	gain insights into contributions from a specific academic area.	2	Normal
45		view statistical analysis of contributions per Faculty	understand the overall contribution distribution across different academic areas.	2	Low
46		view my faculty only	focus on contributions and information relevant to my designated academic area.	3	Low
47	User	navigate and use search functionalities	easily find and explore specific contributions or information.	3	Low
48		experience a responsive interface	access and use the system seamlessly on any device, ensuring a smooth user experience.	2	High

The time for sprint 1 is quite long (21 days). In sprint 1, the team focused on designing the website plan. The team completed the items on time and with quality, besides the team worked effectively.

Table 2: Sprint 1 (26.02 - 17.03)

ID	User story	TASKS	Responsible	Original Estimate (hours)	Day 1 (26/02)	Day 2 (27/02)	Day 3 (28/02)	Day 4 (29/02)	Day 5 (01/03)	Day 6 (02/03)	Day 7 (03/03)	Day 8 (04/03)	Day 9 (05/03)	Day 10 (06/03)	Day 11 (07/03)	Day 12 (08/03)	Day 13 (09/03)	Day 14 (10/03)	Day 15 (11/03)	Day 16 (12/03)	Day 17 (13/03)	Day 18 (14/03)	Day 19 (15/03)	Day 20 (16/03)	Day 21 (17/03)	Progress
1	As a student, I want to be able to login to the system	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 4	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 4	0 3	0 0	0 4	0 0	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
2	As a student, I want to submit one or more articles as Word documents	Design and Finding library	Doc Arh, Ngila, Thinh	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
3	As a student, I want to upload high-quality images to accompany my articles	Design and Finding library	Doc Arh, Ngila, Thinh	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
4	As a student, I want to be able to update submitted contributions.	Design and Finding library	Doc Arh, Ngila, Thinh	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
5	As a student, I want to read and agree to the Terms and Conditions before submitting my contributions to the magazine.	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
6	As a student, I want to be notified via email once I have successfully submitted my contribution to the magazine.	Design and Finding library Back end	Doc Arh, Ngila, Thinh Cuong	1 4	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 3	0 4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
7	As a student, I want to be notified via email once my contribution has been reviewed.	Design and Finding library Code back end	Doc Arh, Ngila, Thinh Cuong	1 4	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 3	0 4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
8	As a student, I want to view total views of my contributions	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
9	As a student, I want to interact with other contributors: like/dislike, comment	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
10	As a student, I want to like/dislike for a comment	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
11	As a student, I don't want to see comments which including blocked words	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
12	As a student, I want to anonymous submit new contribution or comment	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
13	As a student, I want to receive email or notification for new interactions to my contributions	Design and Finding library Back end	Doc Arh, Ngila, Thinh Cuong	1 4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 3	0 4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
14	As a Faculty Marketing Coordinator, I want to be able to login to the system	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 4	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	2 2	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
15	As a Faculty Marketing Coordinator, I want to manage contributions for my Faculty.	Design and Finding library Back end	Doc Arh, Ngila, Thinh Cuong	1 4	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
16	As a Faculty Marketing Coordinator, I want to receive an email notification when a student from my Faculty submits a contribution to the magazine	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
17	As a Faculty Marketing Coordinator, I want to be able to access and review submissions from students within my Faculty within 14 days of submission	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
18	As a Faculty Marketing Coordinator, I want view, edit, and select contributions for publication.	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
19	As a Faculty Marketing Coordinator, I want to be able to interact with the students in their Faculty in order to edit the contributions	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
20	As a Faculty Marketing Coordinator, I want to be able to download the selected contributions from my faculty in a separate ZIP file.	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
21	As a Faculty Marketing Coordinator, I want to manage contributions by each student	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
22	As a Faculty Marketing Coordinator, I want categorize the contributions by good, normal, bad	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
23	As a Faculty Marketing Coordinator, I want to have flexible and convenient user interface to manage student's contributions easier	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
24	As a University Marketing Manager, I want to be able to login to the system	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
25	As a University Marketing Manager, I want to have access to view all selected contributions from each Faculty for final review and approval	Design and Finding library Back end	Doc Arh, Ngila, Thinh Cuong	1 4	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
26	As a University Marketing Manager, I want to be able to download all selected contributions in a ZIP file after the final closure date for transfer	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
27	As a University Marketing Manager, I want view reports on the number of contributions, contributors, and percentages by faculty for each academic year	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
28	As a University Marketing Manager, I want be notified if a Faculty Marketing Coordinator hasn't reviewed a submission after 14 days.	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
29	As a University Marketing Manager, I want to download all uploaded documents in CSV/Excel format	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
30	As a University Marketing Manager, I want to view all student contributions in different view: latest, most popular (by likes/dislike, comments)	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
31	As a University Marketing Manager, I want to view live dashboard	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
32	As a University Marketing Manager, I want to export dashboard statistics to image in JPG/PNG format	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
33	As an Administrator, I want to create a new account (student, Marketing Coordinator, Marketing Manager, Guest)	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	Done
34	As an Administrator, I want to lock or unlock accounts (student, Marketing Coordinator, Marketing Manager, Guest)	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	2 2	0 0	0 0	2 2	Done
35	As an Administrator, I want to delete accounts (students, guests, Marketing Coordinator, Marketing Manager, Guest) that have been locked	Design and Finding library Back end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	2 2	Done
36	As an Administrator, I want to be able to set closure dates for each academic year to disable new contributions and updates after a certain date	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	2 2	Done
37	As an Administrator, I want to view and update the list of users on the system.	Design and Finding library Back end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	1 0	0 0	0 0	0 0	2 2	Done
38	As an Administrator, I want to view list, create, update, delete all the faculties.	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	3 3	0 0	0 0	0 0	0 0	0 0	2 2	Done
39	As an Administrator, I want to view list, create, update, delete the submission of all faculties.	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	2 2	Done
40	As an Administrator, I want to config Automatic system backup (daily, weekly, monthly) with ability to restore to a specific state	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	2 2	Done
41	As an Administrator, I want to customize system settings like turn on/off notification, change default notification to web or email	Design and Finding library Code back End	Doc Arh, Ngila, Thinh Cuong	1 4	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 3	0 4	0 0	0 0	1 1	1 1	0 0	0 0	0 0	0 0	0 0	2 2	Done
42	As an Administrator, I want to log all system activities for tracing errors	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 5	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2	2 2	0 0	1 1	0 0	0 0	0 0	2 2	Done
43	As a guest user, I want to be able to login to the system.	Design and Finding library Front end	Doc Arh, Ngila, Thinh Thai	1 4	0 0	0 0	0 0	0 0	0 0	1 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
44	As a guest user, I want to be able to view selected reports from a specific Faculty.	Design and Finding library Back end	Doc Arh, Ngila, Thinh Thai	1 4	0 0	0 0	0 0	0 0	0 0	1 0	0 0	2 2	2 2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	Done
45	As a guest user, I want to view statistical analysis such as the number of contributions per Faculty to understand the overall contribution distribution	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
46	As a guest user, I should only view my faculty only	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
47	As a guest user, I should navigate and search functionalities	Design and Finding library	Doc Arh, Ngila, Thinh	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done
48	As a user, I want the interface to be responsive so that I can access and use the system seamlessly on any device (e.g., mobile phones, tablets)	Design and Finding library	Doc Arh, Ngila, Thinh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Done

In Sprint 2 the Team was productive and completed a significant amount of work but there were some challenges with time management and building FE and BE functionality.

Table 3: Sprint 2 (18.03 - 25.03)

ID	USER STORY	TASKS	Responsible	Original Estimate (hours)	Day 1 (18/03)	Day 2 (19/03)	Day 3 (20/03)	Day 4 (21/03)	Day 5 (22/03)	Day 6 (23/03)	Day 7 (24/03)	Progress
1	As a student, I want to submit one or more articles as Word documents	Front end	Thái	3	0	0	0	0	0	0	0	Done
		Back end	Đức Anh, Thái	6	2	0	0	2	0	0	2	Done
2	As a student, I want to upload high-quality images to accompany my articles	Front end	Thái	3	0	0	0	0	0	0	0	Done
		Back end	Đức Anh	6	0	2	0	2	0	0	2	Done
3	As a student, I want to be able to update submitted contributions.	Front end	Thái	3	0	0	0	0	0	0	0	Done
		Back end	Đức Anh, Thái	6	0	0	2	2	0	0	2	Done
5	As a student, I want to read and agree to the Terms and Conditions before submitting my contributions to the magazine.	Front end	Thái	3	0	0	0	0	0	0	0	Done
		Back end	Thái	6	0	0	0	0	2	2	2	Done
6	As a student, I want to be notified via email once I have successfully submitted my contribution to the magazine.	Front end	Cường	3	0	0	0	0	0	0	0	Done
		Back end	Cường	6	2	0	0	0	0	2	2	Done
7	As a student, I want to be notified via email once my contribution has been reviewed.	Front end	Cường	3	0	0	0	0	0	0	0	Done
		Back end	Cường	6	0	0	2	0	0	0	4	Done
15	As a Faculty Marketing Coordinator, I want to manage contributions for my Faculty.	Front end	Thái	3	0	2	0	0	0	0	0	Done
		Back end	Thái	3	0	0	3	0	0	0	0	Done
16	As a Faculty Marketing Coordinator, I want to receive an email notification when a student from my Faculty submits a contribution to the magazine.	Front end	Thái	3	0	0	4	0	0	0	0	Done
		Back end	Cường, Thái	3	0	0	0	0	0	0	0	Done
17	As a Faculty Marketing Coordinator, I want to be able to access and review submissions from students within my Faculty within 14 days of submission.	Front end	Thái	3	0	0	0	5	0	0	0	Done
		Back end	Cường	3	0	0	0	0	3	0	0	Done
18	As a Faculty Marketing Coordinator, I want view, edit, and select contributions for publication.	Front end	Thái	3	0	0	0	0	1	0	0	Done
		Back end	Thái	3	0	0	0	0	0	2	0	Done
19	As a Faculty Marketing Coordinator, I want to be able to interact with the students in my Faculty in order to edit the contributions	Front end	Thái	3	0	0	0	0	2	0	0	Done
		Back end	Thái	3	0	0	0	0	3	0	0	Done
20	As a Faculty Marketing Coordinator, I want to be able to download the selected contributions from my faculty in a separate ZIP file.	Front end	Thái	6	0	0	0	0	1	0	2	Done
		Back end	Đức Anh	6	0	0	0	0	1	0	0	Done

In sprint 3, the remaining work is mainly related to coding. In sprint 3, the division of work and time is clear and reasonable and the completion schedule is good.

Table 4: Sprint 3 (26.03 - 07.04)

[illegible]

In sprint 4, the system is almost complete. The remaining tasks are mostly not too complicated, time is divided into smaller intervals, however some functions encounter problems during implementation.

Table 5: Sprint 4 (08.04 - 15.04)

ID	USER STORY	TASKS	Responsible	Original Estimate (hours)	Day 1 (08/04)	Day 2 (09/04)	Day 3 (10/04)	Day 4 (11/04)	Day 5 (12/04)	Day 6 (13/04)	Day 7 (14/04)	Progress
1	As a University Marketing Manager, I want view reports on the number of contributions, contributors, and percentages by faculty for each academic year.	Front end	Thái	6	0	0	0	3	3	0	0	Done
		Back end	Thái	8	2	2	2	0	0	2	2	Done
2	As a University Marketing Manager, I want be notified if a Faculty Marketing Coordinator hasn't reviewed a submission after 14 days.	Front end	Đức Anh	1	0	0	0	0	0	0	1	Done
		Back end	Cường	8	2	2	0	2	2	2	2	Done
3	As a University Marketing Manager, I want to download all uploaded documents in CSV/EXCel format	Front end	Đức Anh	2	2	0	0	0	0	0	0	Done
		Back end	Thái	6	0	0	3	3	3	0	0	Done
6	As a University Marketing Manager, I want to view live dashboard	Front end	Thái	4	0	0	0	0	0	0	4	Done
		Back end	Thái	8	2	2	2	2	0	0	0	Done
7	As a University Marketing Manager, I want to export dashboard statistics to image in JPG,PNG format	Front end	Đức Anh	1	0	0	0	0	0	0	0	Done
		Back end	Thái	4	0	0	2	2	4	0	0	Done
8	As an Administrator, I want to log all system activities for tracing errors	Front end	Thái	2	0	0	0	0	0	0	2	Done
		Back end	Thái	4	0	0	0	0	0	3	0	Done
9	As a guest user, I should only view my faculty only	Front end	Thái	1	0	0	0	0	0	0	0	Done
		Back end	Thái	1	0	0	0	0	0	0	1	Done
10	As a guest user, I want to navigate and search functionalities	Front end	Thái	1	0	0	0	0	0	0	0	Done
		Back end	Thái	1	0	0	0	0	0	0	1	Done

Advantages of the Scrum process: Over four sprints, the team's Scrum process demonstrated various strengths. First, the team excelled at breaking down work into manageable user stories with clear descriptions, priorities, and target users, supporting effective planning and execution. Time allocation is highly structured, with tasks assigned based on complexity and individual ability. Strong communication and collaboration skills facilitated problem solving and minimized disruptions during the sprint. The team's commitment to post-sprint reviews and its willingness to adapt and improve its processes reflect a continuous improvement mindset. Progress was very consistent, with each sprint achieving around 80% completion of the set goal on time, indicating a steady workflow. Effective collaboration is evident through proper division of tasks and consistent delivery of quality work. The clear and logical division of work into user stories and tasks facilitated better planning and execution. The team's adaptability is reflected in its ability to learn from previous sprints and make improvements.

Drawback of the Scrum process: Despite the successes, there are still areas for improvement in the team's Scrum process. Notably, there is a recurring problem of not completing sprint goals on time, with about 15-20% of the goal each sprint. This hints at potential challenges in accurately estimating task effort or managing unforeseen obstacles effectively. Although the team solved small problems competently, their problem-solving skills needed to be enhanced to handle more important challenges during the project. Besides, there is the challenge of time management. Many cases where actual completion times greatly exceed estimated completion times indicate time management challenges or an underestimate of task complexity. Finally, there is the issue of communication. Although in general the collaboration was effective, meetings were not frequent, only twice a week. There were some communication issues within the team that caused misunderstandings and disagreements about project goals and priorities.

Further improvements in future Scum process: To improve processes for future projects, refining the planning and estimating process is important. Conducting a thorough assessment of task complexity and potential risks can lead to more accurate estimates and better resource allocation. Regular retrospective meetings can facilitate continuous learning and development within the team by reflecting on successes and areas for improvement, true to the spirit of the Scrum process. Strengthening proactive risk management will also address challenges more effectively and ensure estimated times do not deviate too much from actual times. Continue to build on the advantages of fine-tuned planning that includes detailed assessments of task complexity and realistic effort estimates. Advanced time allocation prevents overruns and ensures a balanced workload. Finally, foster a culture of continuous improvement that encourages frequent reflection and iterative improvement. Making regular improvements gathers feedback for improvement.

2. Evaluation of team

2.1 Phan Hung Cuong

Phan Hung Cuong is the person in charge of Frontend Backend and database design. He is responsible for creating APIs for functions in the system and connecting website notifications for functions such as registration and password recovery. Cuong also optimizes database performance and designs effective database structures for the project. Besides, he ensures data integrity and security. He is an experienced problem solver during system development. Although the assigned tasks were completed very well, Cuong also had a few weaknesses. The progress of completing the work is still quite slow, sometimes late compared to the deadline set by the group. In meetings, he is also quite quiet and rarely gives much contribution when other members have problems. This caused the interaction between Cuong and the group to be low, leading to him sometimes not being able to keep up with the progress with the members in the early stages. However, Cuong's work results were very good and contributed a lot to building the system

2.2 Trinh Duc Anh

Trinh Duc Anh brings a lot of value to the team thanks to his skills and experience. Taking on the role of Leader, he manages tasks very well and creates a positive operating environment for the team. Duc Anh is the person who often checks the work progress of team members. During the system development process, he was the UI designer for the team. UI designs achieve satisfaction and always listen to

modifications to help the product become more complete. In addition, Duc Anh also takes on the role of BE for most of the core functions of the system, and operates Cloud Computing. All the tasks assigned to him were completed at a good level. Duc Anh's significant contribution has helped the system operate stably and smoothly. Some of Duc Anh's limitations are that responding to problems during the work process is slow and the schedule is sometimes contrary to the team's meeting time.

2.3 Nguyen Doanh Thai

Nguyen Doanh Thai is heavily involved in the system development process. During work, he is always very enthusiastic in giving opinions and helping team members solve problems. Thai is always proactive at work. Thai has expertise in database design, development and administration. He was the original designer of the system's database and managed data security. He built a critical API component, improved database query performance, or automated deployments, mentioning those contributions. Thai is also involved in front-end and back-end development for the project's main functions. Besides, he has good problem solving skills. Thai receives and fixes system errors from testers quickly and accurately. Due to taking on the BA role, Thai has contributed to the process of collecting user requirements. During the system development process, he cooperated very effectively with other members. Thai is responsible at work and always completes tasks on time. Some drawbacks of Thai people are that they are sometimes too perfectionist.

2.4 Dao Trong Nghia

Dao Trong Nghia takes on the role of building product development orientation for the group. Nghia always ensures that Scrum meetings take place effectively, helping the team comply with the Scrum process. He has good time management skills and ensures that he can properly allocate time to each task and meet deadlines. He ensures that he plans and distributes work to members at a good level, thanks to which the product is completed on schedule. Nghia is also involved in the UI design process. Besides, he analyzes customer requirements from clear and detailed user stories. Nghia is responsible for most of the testing tasks. He writes test cases to test the product's features and functions, as well as executing test cases and reporting errors. Nghia's drawback is that it often forgets a few small problems during the work process. These small problems sometimes waste time because they have to be resolved after the sprint has ended.

FACTOR	WEIGHT	Phan Hung Cuong	Trinh Duc Anh	Nguyen Doanh Thai	Dao Trong Nghia	Nguyen Tien Thinh
Leadership Skills	6	7	9	8	7	8
Communication Skills	8	7	8	9	8	8
Problem-solving Abilities	10	9	10	10	8	9
Technical Expertise	9	10	10	10	8	8
Adaptability	6	8	8	8	8	8
Reliability	3	9	10	10	10	9
Creativity	5	7	8	8	10	8
TOTAL	47	8.3	9.1	9.1	8.2	8.2

Table 6 - Factor table

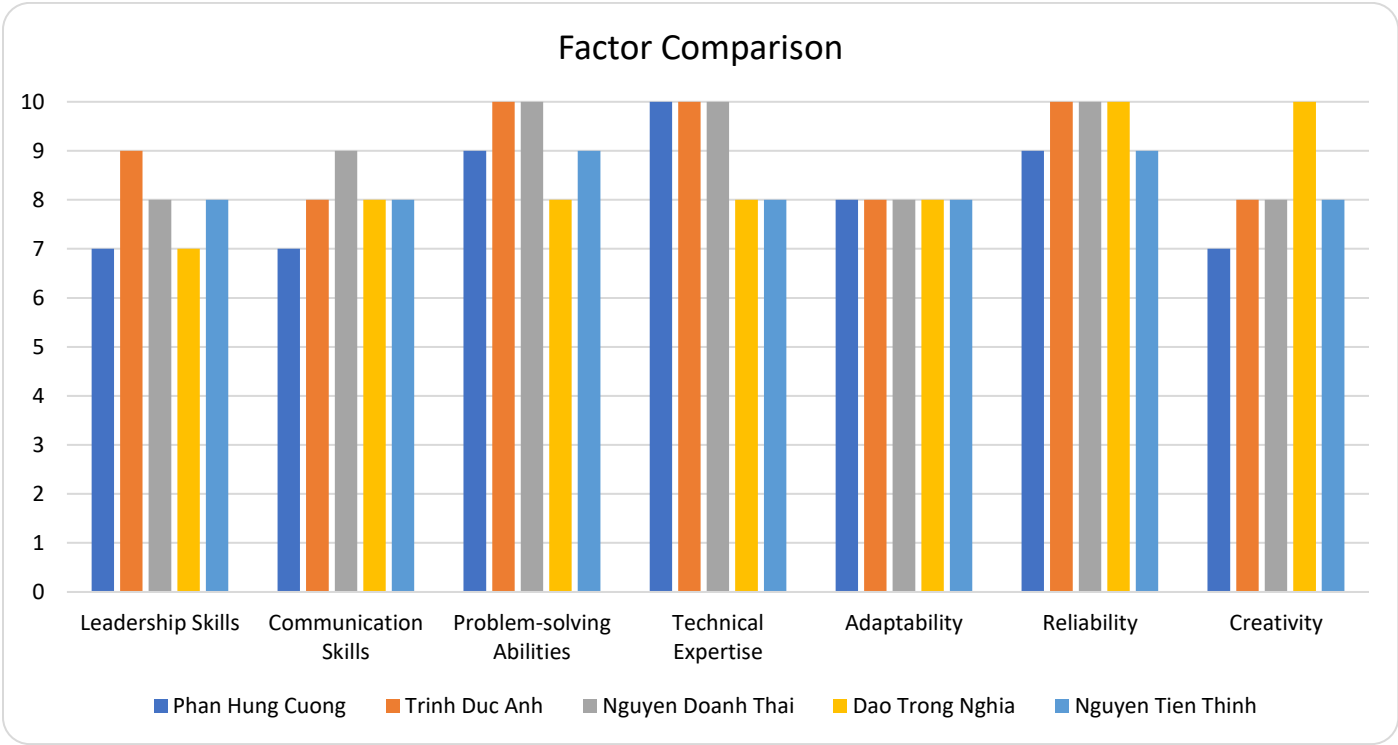


Figure 7 - Factor comparison

PERSON	TOTAL
Phan Hung Cuong	8.3
Trinh Duc Anh	9.1
Nguyen Doanh Thai	9.1
Dao Trong Nghia	8.2
Nguyen Tien Thinh	8.2

Table 7 - Grade of Overall Team Contribution

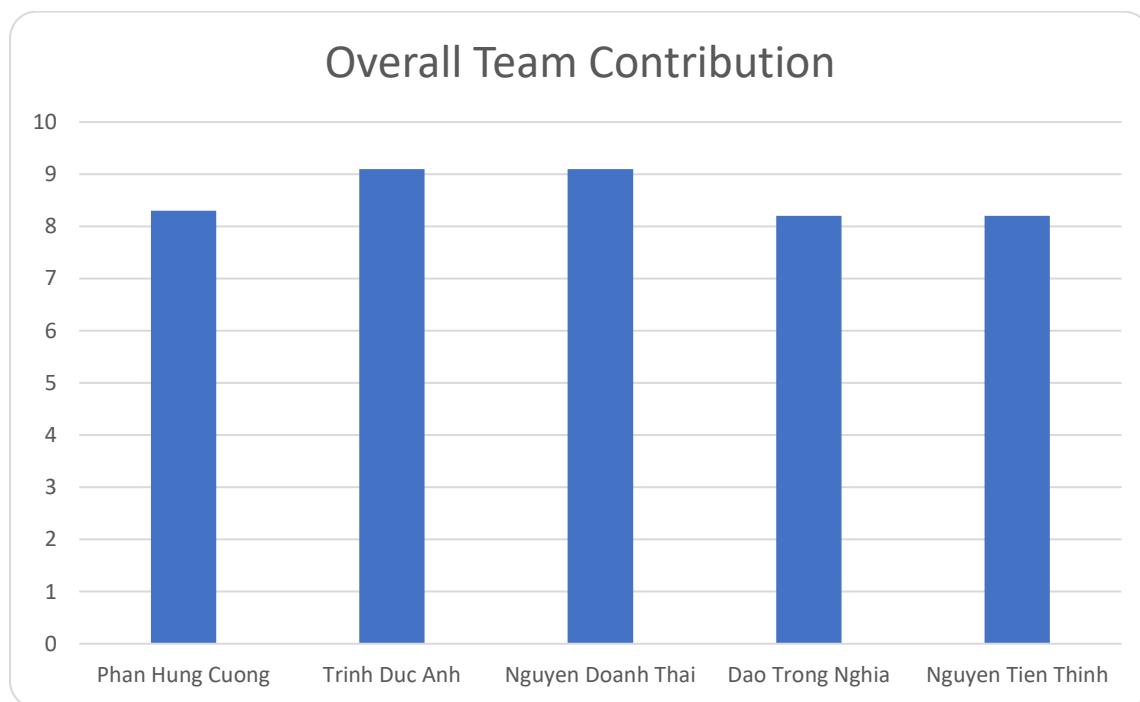


Figure 8 - Overall Team Contribution

3. Self-evaluation

3.1 My contributions

The author takes on the role of a Product Owner. He collects requirements from and writes them into user stories. The author analyzes these requirements to identify those that are most important and most relevant to the product vision and strategy.

Figure 9: Userstory

NO.	User Story Name	Progress	Priority	Sprint
1	As a student, I want to be able to login to the system	100%	Must have	1
2	As a student, I want to submit one or more articles as Word documents	100%	Must have	2
3	As a student, I want to upload high-quality images to accompany my articles	100%	Should have	2
4	As a student, I want to be able to update submitted contributions.	100%	Must have	2
5	As a student, I want to read and agree to the Terms and Conditions before submitting my contributions to the magazine.	100%	Could have	2
6	As a student, I want to be notified via email once I have successfully submitted my contribution to the magazine.	100%	Should have	2
7	As a student, I want to be notified via email once my contribution has been reviewed.	100%	Should have	2
8	As a student, I want to view total views of my contributions	100%	Should have	3
9	As a student, I want to interact with other contributions: like/dislike, comment	100%	Should have	3
10	As a student, I want to like/dislike for a comment	100%	Should have	3
11	As a student, I don't want to see comments which including blocked words	100%	Should have	3
12	As a student, I want to anonymous submit new contribution or comment	100%	Should have	3
13	As a student, I want to receive email or notification for new interactions to my contributions	100%	Should have	3
14	As a Faculty Marketing Coordinator, I want to be able to login to the system	100%	Must have	1
15	As a Faculty Marketing Coordinator, I want to manage contributions for my Faculty.	100%	Must have	2
16	As a Faculty Marketing Coordinator, I want to receive an email notification when a student from my Faculty submits a contribution to the magazine.	100%	Should have	2
17	As a Faculty Marketing Coordinator, I want to be able to access and review submissions from students within my Faculty within 14 days of submission.	100%	Must have	2
18	As a Faculty Marketing Coordinator, I want view and select contributions for publication.	100%	Must have	2
19	As a Faculty Marketing Coordinator, I want to be able to interact with the students in their Faculty in order to edit the contributions	100%	Could have	2
20	As a Faculty Marketing Coordinator, I want to be able to download the selected contributions from my faculty in a separate ZIP file.	100%	Must have	2
21	As a Faculty Marketing Coordinator, I want to manage contributions by each student	100%	Should have	3
22	As a Faculty Marketing Coordinator, I want categorize the contributions by good, normal, bad	100%	Should have	3
23	As a Faculty Marketing Coordinator, I want to have flexible and convenient user interface to manage student's contributions easier	100%	Should have	3
24	As a University Marketing Manager, I want to be able to login to the system	100%	Must have	1
25	As a University Marketing Manager, I want to have access to view all selected contributions from each Faculty for final review and approval.	100%	Must have	2
26	As a University Marketing Manager, I want to be able to download all selected contributions in a ZIP file after the final closure date for transfer out of the system.	100%	Must have	2
27	As a University Marketing Manager, I want view reports on the number of contributions, contributors, and percentages by faculty for each academic year.	100%	Should have	2
28	As a University Marketing Manager, I want be notified if a Faculty Marketing Coordinator hasn't reviewed a submission after 14 days.	100%	Should have	2
29	As a University Marketing Manager, I want to download all uploaded documents in CSV/EXCel format	100%	Should have	3
30	As a University Marketing Manager, I want to view all student contributions in different view: latest, most popular (by likes/dislike, comments, views), by each faculty	100%	Should have	3
31	As a University Marketing Manager, I want to view live dashboard	100%	Should have	3
32	As a University Marketing Manager, I want to export dashboard statistics to image in JPG,PNG format	100%	Should have	3
33	As an Administrator, I want to create a new account (student, Marketing Coordinator, Marketing Manager, Guest)	100%	Must have	1
34	As an Administrator, I want to lock or unlock accounts (student, Marketing Coordinator, Marketing Manager, Guest)	100%	Must have	1
35	As an Administrator, I want to delete accounts (students, guests, Marketing Coordinator, Marketing Manager, Guest) that have been locked for a certain time	100%	Must have	1
36	As an Administrator, I want to be able to set closure dates for each academic year to disable new contributions and updates after a certain date.	100%	Should have	1
37	As an Administrator, I want to view and update the list of users on the system.	100%	Must have	2
38	As an Administrator, I want to view list, create, update, delete all the faculties.	100%	Must have	2
39	As an Administrator, I want to view list, create, update, delete the submission of all faculties.	100%	Must have	2
40	As an Administrator, I want to config Automatic system backup (daily, weekly, monthly) with ability to restore to a specific state	100%	Should have	3
41	As an Administrator, I want to customize system settings like turn on/off notification, change default notification to web or email	100%	Should have	3
42	As an Administrator, I want to log all system activities for tracing errors	100%	Should have	3
43	As a guest user, I want to be able to login to the system.	100%	Could have	1
44	As a guest user, I want to be able to view selected reports from a specific Faculty.	100%	Could have	2
45	As a guest user, I want to view statistical analysis such as the number of contributions per Faculty to understand the overall contribution distribution.	100%	Could have	2
46	As a guest user, I should only view my faculty only	100%	Should have	3
47	As a guest user, I want to navigate and search functionalities	100%	Should have	3
48	As a user, I want the interface to be responsive so that I can access and use the system seamlessly on any device (e.g., mobile phones, tablets, desktops).	100%	Should have	2

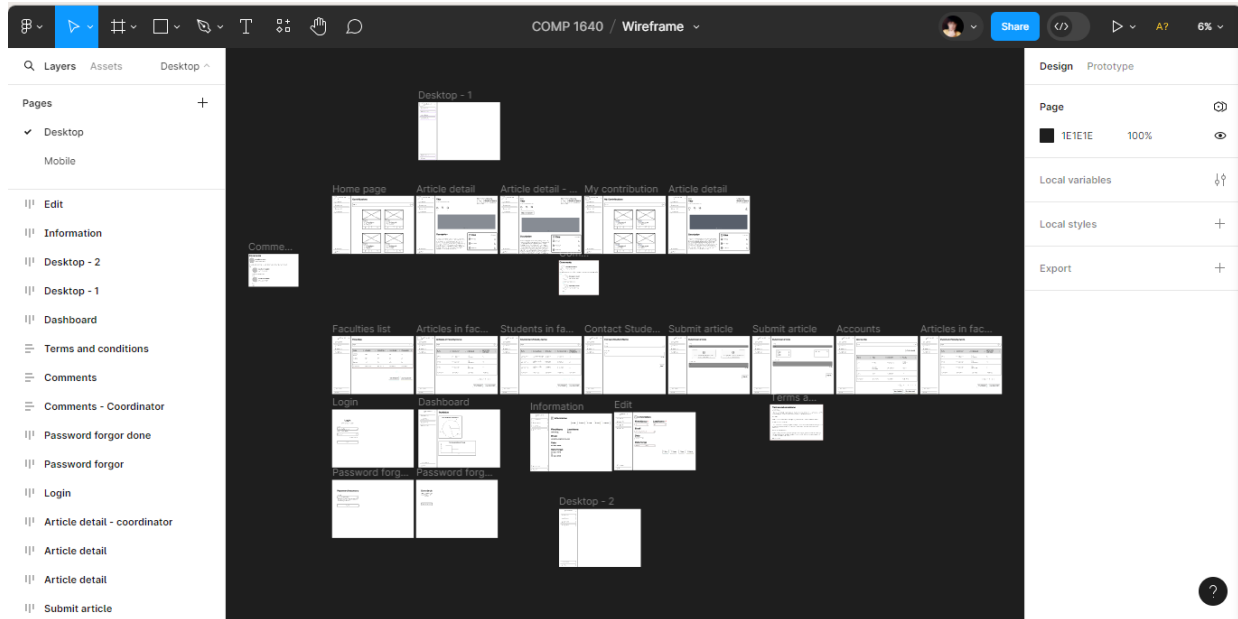
Besides that, he creates and manages product backlogs. The author is responsible for creating and managing the product backlog, prioritizing requirements, and ensuring that the backlog is kept up to date.

Figure 10: Product backlog

No	As a / an	I want to	So that	Sprint	Priority
1	Student	log in / log out	to access the page that matches your role on the system.	1	High
2		submit one or more articles as Word documents	share my academic contributions with the magazine.	2	High
3		upload high-quality images to accompany my articles	enhance the visual appeal and impact of my contributions.	2	High
4		update submitted contributions	make necessary revisions or improvements to my previously submitted work.	2	Normal
5		read and agree to the Terms and Conditions	ensure compliance and understanding before submitting my contributions.	2	Normal
6		be notified via email upon successful submission	receive confirmation and acknowledgment of my contribution.	2	Normal
7		be notified via email after contribution review	stay informed about the status and feedback on my submitted work.	2	Normal
8		view total views of my contributions	track the engagement and popularity of my contributions.	3	Normal
9		interact with other contributions: like/dislike, comment	engage with and express opinions on the work of peers.	3	Normal
10		like/dislike for a comment	provide feedback on comments made by others.	3	Normal
11		avoid seeing comments with blocked words	ensure a positive and respectful interaction environment.	3	Normal
12		anonymously submit new contributions or comments	maintain privacy while sharing my work or opinions.	3	Low
13		receive email or notification for new interactions	stay updated on engagement with my contributions.	3	Low
14	Faculty Marketing Coordinator	log in to the system	access tools and features for managing contributions within my Faculty.	1	High
15		manage contributions for my Faculty	oversee and organize contributions submitted by students in my Faculty.	2	High
16		receive email notification for Faculty contributions	stay informed about new contributions from students in my Faculty.	2	Normal
17		access and review submissions within 14 days	ensure timely evaluation of student contributions.	2	Normal
18		view and select contributions for publication	choose the best contributions for publication.	2	Normal
19		interact with students in my Faculty to edit contributions	collaborate with students to enhance the quality of their contributions.	2	Normal
20		download selected contributions in a ZIP file	easily collect and manage selected contributions from my Faculty.	2	Normal
21		manage contributions by each student	organize and track individual student contributions.	3	Low
22		categorize contributions by good, normal, bad	evaluate and classify contributions based on quality.	3	Low
23		have a flexible and convenient user interface	simplify the management of student contributions.	3	Low
24	University Marketing Manager	log in to the system	access tools and features for overseeing contributions across all Faculties.	1	High
25		view all selected contributions for final review and approval	evaluate and approve contributions for publication.	2	High
26		download all selected contributions in a ZIP file	collect all approved contributions for further processing.	2	Normal
27		view reports on contributions, contributors, and percentages by Faculty	gain insights into the overall contribution distribution.	2	Normal
28		be notified if a Faculty Marketing Coordinator hasn't reviewed a submission	ensure timely evaluation and coordination within Faculties.	2	Normal
29		download all uploaded documents in CSV/Excel format	access contribution data in a convenient and exportable format.	3	Low
30		view all student contributions in different views	explore contributions based on various criteria for better analysis.	3	Low
31		view live dashboard	monitor real-time activity and engagement with contributions.	4	Low
32		export dashboard statistics to image in JPG/PNG format	save and share visual representations of contribution data.	3	Low
33	Administrator	create a new account (student, Marketing Coordinator, Marketing Manager, Guest)	manage user accounts and roles within the system.	1	High
34		lock or unlock accounts	ensure account security and control access to the system.	1	High
35		delete accounts that have been locked for a certain time	maintain system hygiene and remove inactive accounts.	1	High
36		set closure dates for each academic year	manage contribution timelines and prevent new submissions after a specified date.	1	Normal
37		view and update the list of users	maintain an accurate and up-to-date user database.	2	Normal
38		view, create, update, delete all faculties	manage and maintain the list of academic faculties.	2	Normal
39		view, create, update, delete submissions of all faculties	oversee and manage contributions submitted by different faculties.	2	Normal
40		configure Automatic system backup	ensure regular backup of system data for security and recovery purposes.	3	Low
41		customize system settings	tailor system preferences to meet specific needs, such as notification preferences.	3	Low
42		log all system activities for tracing errors	keep a record of system events for troubleshooting and error analysis.	3	Low
43	Guest User	be able to log in to the system	access limited functionalities and information as a guest user.	1	Normal
44		view selected reports from a specific Faculty	gain insights into contributions from a specific academic area.	2	Normal
45		view statistical analysis of contributions per Faculty	understand the overall contribution distribution across different academic areas.	2	Low
46		view my faculty only	focus on contributions and information relevant to my designated academic area.	3	Low
47	User	navigate and use search functionalities	easily find and explore specific contributions or information.	3	Low
48		experience a responsive interface	access and use the system seamlessly on any device, ensuring a smooth user experience.	2	High

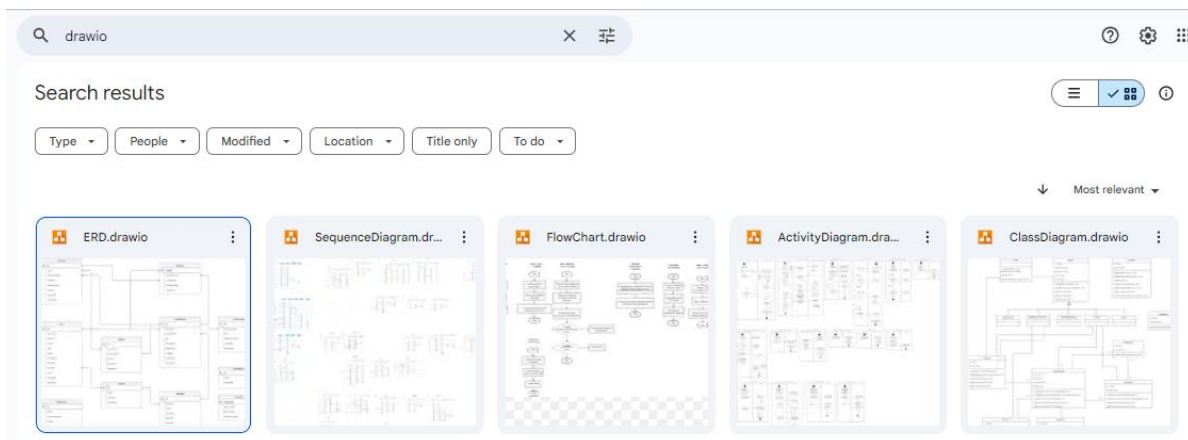
As UI/UX Designer, the author is responsible for designing wireframes for products. Wireframes use design principles and visual elements to create user interfaces that are easy to use and provide a seamless user experience.

Figure 11: Wireframe design



As a Business Analyst, the author has made great contributions in designing diagrams. Using the collected user requirements information, he provides detailed design documents to software developers for all functions. First, the author builds an ERD diagram that describes the relationships between entities in the system, helping the team clearly understand the data structure and how different components interact with each other. Second, the author designed a Class diagram to describe classes in an object-oriented system to show the structure and interactions between classes. Third, he describes the business process and steps involved using a Flowchart. Fourth, the author creates an Activity diagram to describe the workflow of a process for system functions. Finally, he analyzes the interactions and exchanges between objects in the system over time using a Sequence diagram.

Figure 12: Diagram design



As a Tester, the author participates in the actual product testing process, reporting errors to the development team so they can fix them. The bug report includes information about the bug, how to reproduce the bug, and the impact of the bug. Finally, the author takes on half of the work of writing reports for the whole team's work and product development process.

3.2 Reflection on my own performance

The author's Product Owner role demonstrates several strengths. First, they demonstrate a deep understanding of the product vision and strategy, as evidenced by the ability to gather and prioritize requirements that align with these dimensions. This skill ensures that the product backlog is managed effectively, with the most important features prioritized. Additionally, their proficiency in creating user stories facilitates clear communication of requirements to the development team. As a Business Analyst, the author demonstrates flexibility and thoroughness. Their proficiency in designing various diagrams, such as ERD, Class, Flowchart, Activity and Sequence diagrams, shows a comprehensive approach to conveying system functions. This attention to detail helps clarify data structures, system processes, and interactions, thereby improving development efficiency and reducing misunderstandings. Furthermore, the authors' commitment to completing work promptly, responsibly, and actively participating in the development process emphasizes their reliability and dedication. The ability to quickly identify and correct errors during work reflects a proactive approach to ensuring product quality.

However, besides those strengths, the author also reveals some weaknesses. Their involvement in multiple roles, especially as Testers and UI/UX Designers, leads to limited contributions in these areas. Besides, during the process of building the product, the author did not take full advantage of teamwork due to poor coordination with the programming team and hindered the ability to provide comprehensive support in development. their products. In addition, not having a good grasp of the amount of responsibility of all the roles he undertakes also partly affects his effectiveness in each role.

3.3 Lessons learnt

Reflecting on the role and multifaceted experience behind the project, the author draws some valuable lessons. First, the importance of clear role delineation and effective resource allocation is an important lesson. While flexibility is beneficial, spreading different responsibilities too thin can reduce efficiency. Therefore, it is essential to prioritize tasks based on expertise and strategic impact to maximize contribution.

Besides, proactive communication and collaboration are paramount to success in cross-functional roles. The author's interactions with diverse groups emphasize the importance of fostering strong relationships and maintaining open channels of communication. Clear communication ensures alignment of goals, prevents misunderstandings, and facilitates smooth workflows between departments.

Furthermore, the need for continuous skill development and specialization becomes apparent. While the author demonstrates proficiency in some areas, such as product ownership and business analytics, weaknesses in roles such as UI/UX design and testing highlight the importance of continuous learning and specialization. Investing time and resources in honing specific skills can enhance individual contributions and overall team performance.

Additionally, the author wants to emphasize the importance of adaptability and resilience in a dynamic work environment. Taking on multiple roles requires flexibility, quick problem solving, and the ability to thrive in a context of ambiguity and change. Embracing adaptability enables individuals to effectively overcome challenges and seize opportunities for growth.