

Chapter 4

RESULTS AND DISCUSSION

This chapter presents the results and discussion of the research conducted on the StudyBuddy: A Collaborative Study and Note-taking App for Students. The study involved a usability assessment utilizing the Post-Study Usability Questionnaire (PSSUQ), administered to 25 respondents who interacted with the system. The findings will provide an overview of the system's effectiveness, and usability, present the results of the usability management and discuss the implications of these findings for future enhancements.

In this section, results and findings with regards to the objectives of the study presented above will be discussed.

Figure 8

Account Registration

Add User

Student Number: Student Name:

Password: Course:

Year & Section: Gender:

Email: Birthdate:

Student Number	Student Name	Gender	Birthdate	Actions
BJE12310200	John	Male	Dec 31, 2002	<input type="checkbox"/> <input type="checkbox"/>
bwa09020100	We	Male	Feb 9, 2001	<input type="checkbox"/> <input type="checkbox"/>
ssc06139900		Male	Jun 13, 1999	<input type="checkbox"/> <input type="checkbox"/>
bjr06210100	J	Female	Jun 21, 2001	<input type="checkbox"/> <input type="checkbox"/>
CPC10150100	Pa	Male	Oct 15, 2001	<input type="checkbox"/> <input type="checkbox"/>
ACS020202000	Chr	Male	Jul 21, 2002	<input type="checkbox"/> <input type="checkbox"/>
IJP09090900	John	Male	Sep 9, 2001	<input type="checkbox"/> <input type="checkbox"/>
CPE07040100	Pri	Female	Jul 4, 2001	<input type="checkbox"/> <input type="checkbox"/>
mjs10170300	JV	Male	Oct 17, 2003	<input type="checkbox"/> <input type="checkbox"/>

Figure 8 displays the registration of accounts. The registration is done by the admin.

Figure 9

Login Page

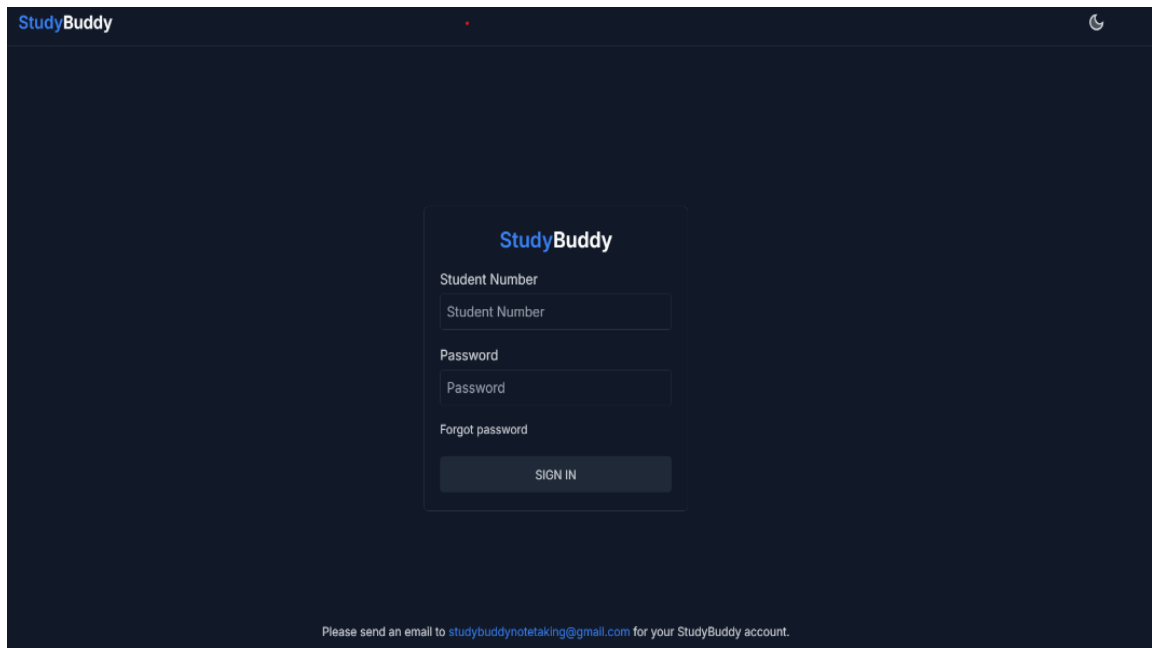


Figure 9 displays the system login page. It includes the Student Number and temporary password given by the admin upon registration of account.

1. Develop and designed a user-friendly interface for StudyBuddy with a technical features such as:

a) Creating, sharing and collaborating of study materials

Figure 10

Creating, sharing and collaborating of study materials

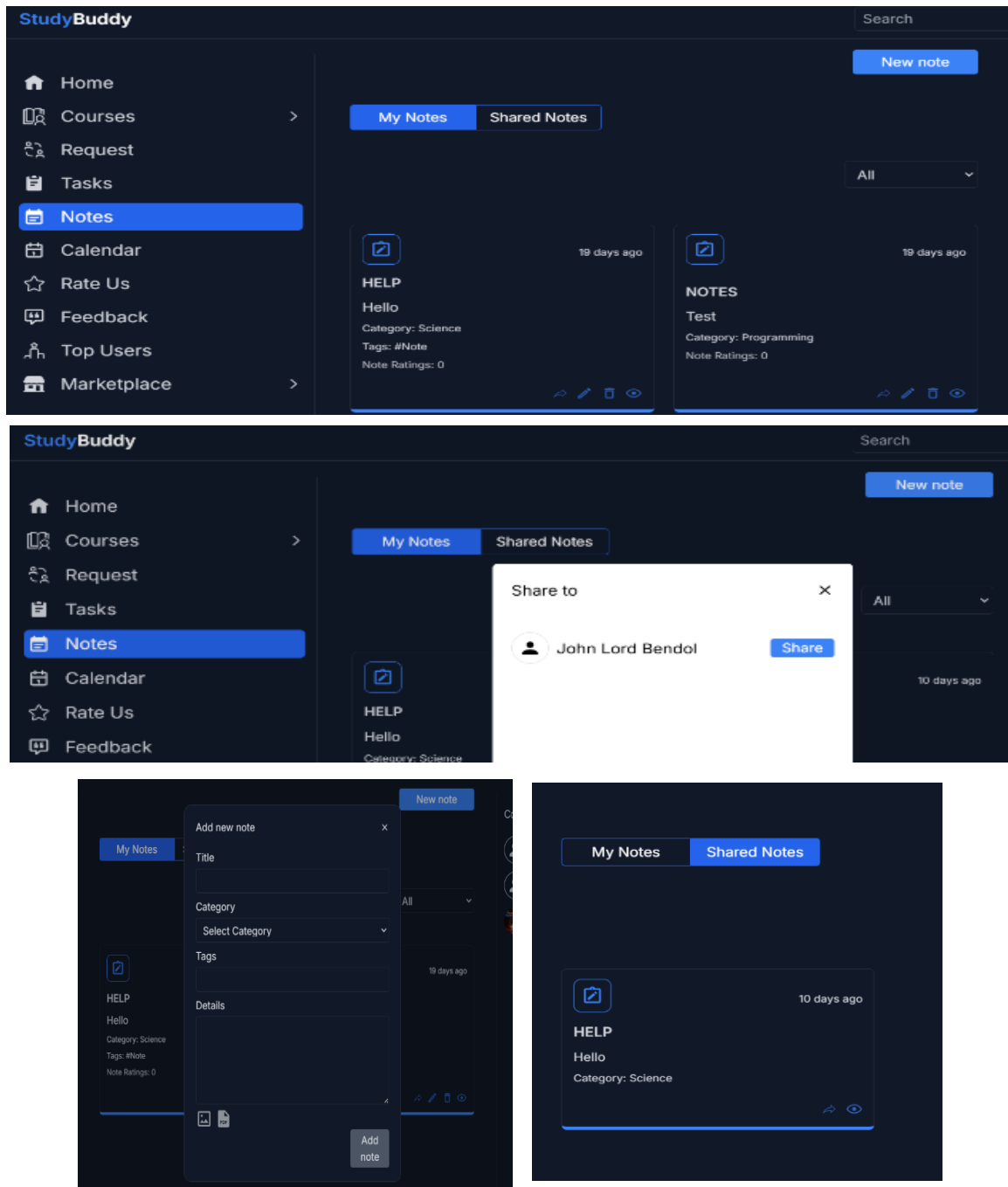


Figure 10 displays the creating of notes. Once the user is done with their notes, they can already share it to their peers who they collaborated with. If someone will share a

notes with the user, it will be shown on the shared notes section.

b) Tagging

Figure 11

Tagging

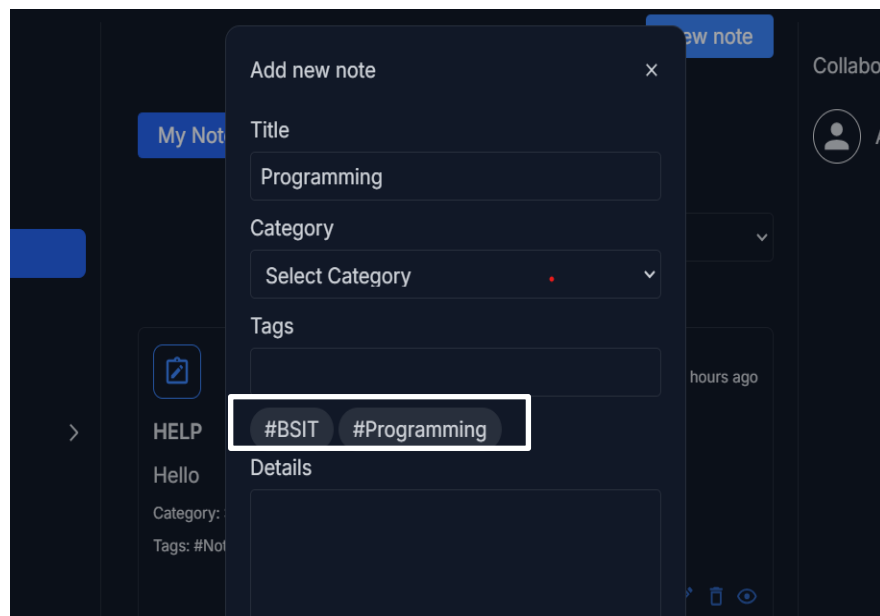


Figure 11 displays the organizational tool that allows the user to put a tag/s on their notes to easily find it.

c) Categorization

Figure 12

Categorization

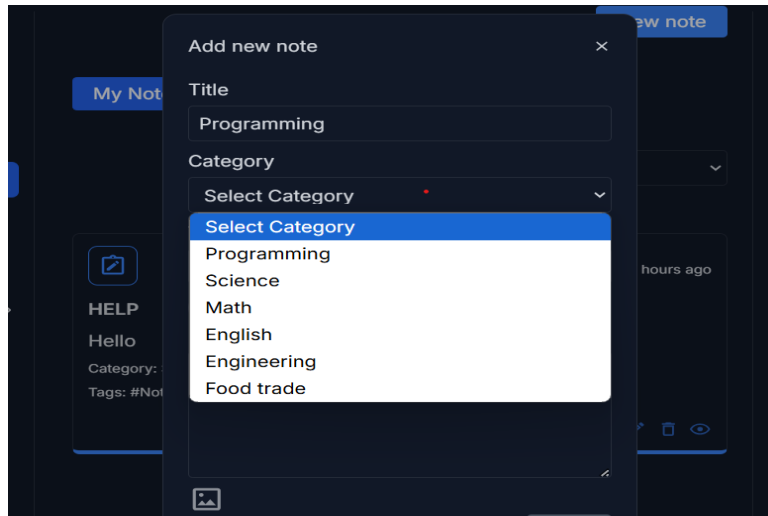
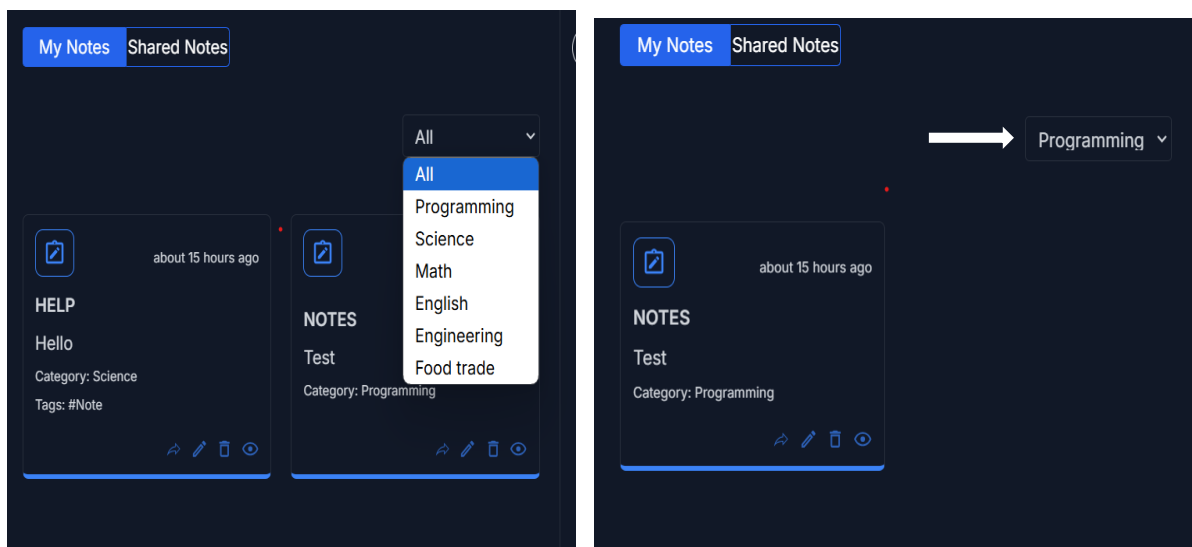


Figure 12 displays the organizational tool that allows the user to select a category depending on what kind of notes they have.



Once the user is done doing their notes, they can easily access it by clicking the dropdown on the right side. They will select what kind of category their notes have and it will show all the notes that belongs to the selected category.

d) Search functionalities

Figure 13

Search functionalities

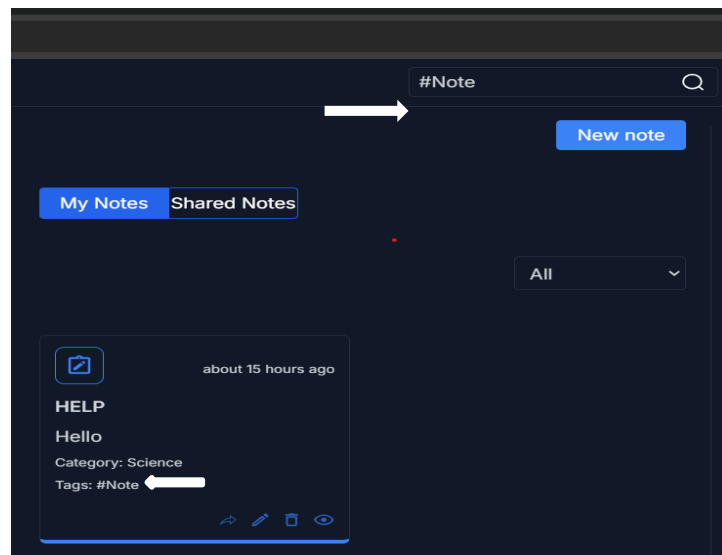


Figure 13 displays the organizational tool that allows the user to easily access their notes by searching the tag/s they put on it.

e) Task assignment and tracking

Figure 14

Task assignment and tracking

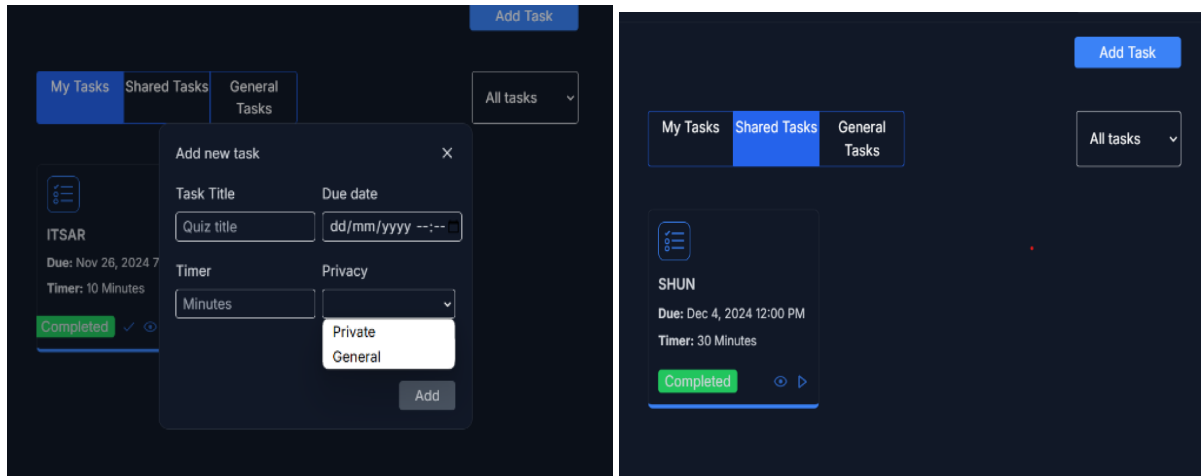
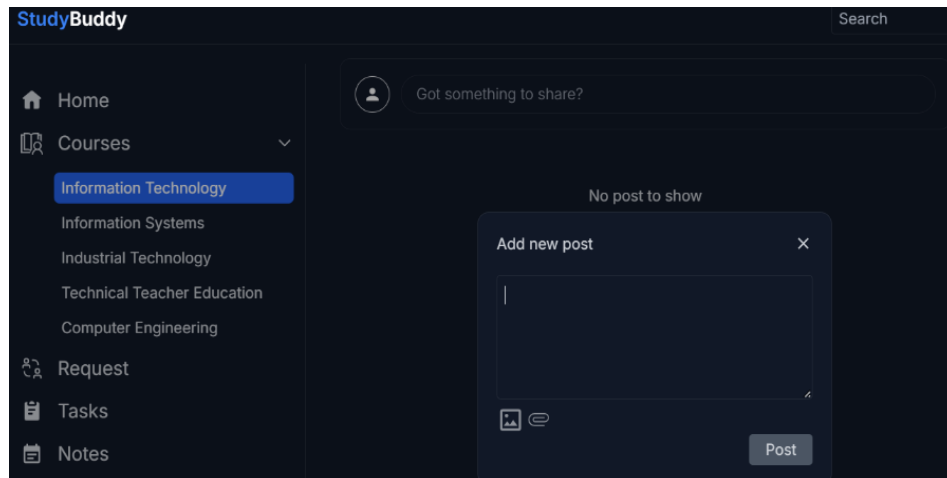


Figure 14 displays where the user can create a task assignment or quiz where they can put a deadline on it to keep track of upcoming quizzes they have and set a timer so they can track yourself on how much time they needed to answer a specific question/s. The user can also keep track of their tasks by having a to do or completed mark on it. If they're already done on the task, just click the check button to show that it is completed. They can also share a task to the users, just set the privacy to general or private.



In our system, it also allows the user to upload their task/s or if they need a help to a specific course to those users who have a knowledge on a specific topic. This shows the collaboration among users of different courses.

f) Real-time communication channels

Figure 15

Real-time communication channels

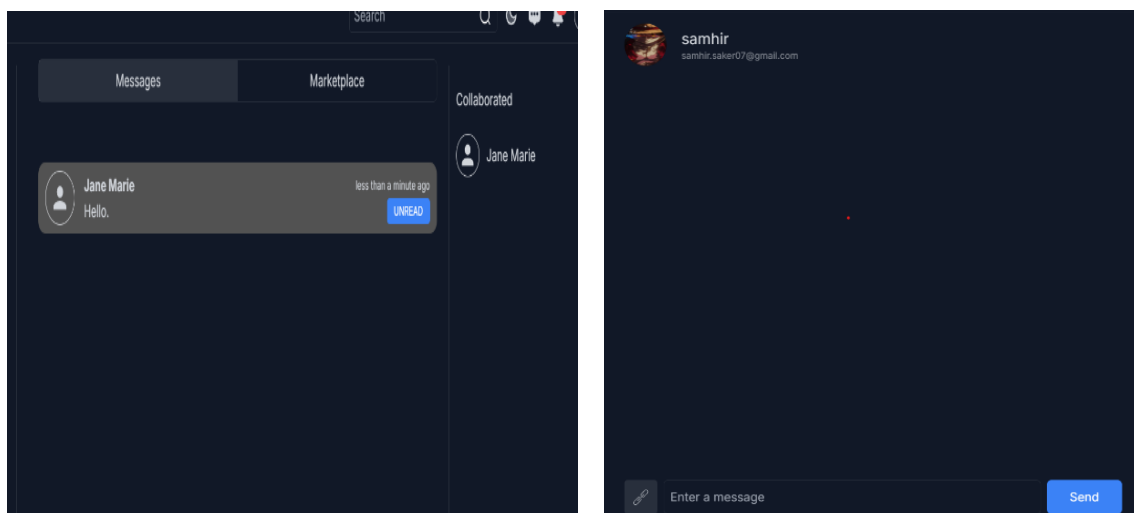


Figure 15 displays the real-time communication channels where the user can communicate with the other users within the app

g) Accountability mechanisms

Figure 16

Accountability mechanisms

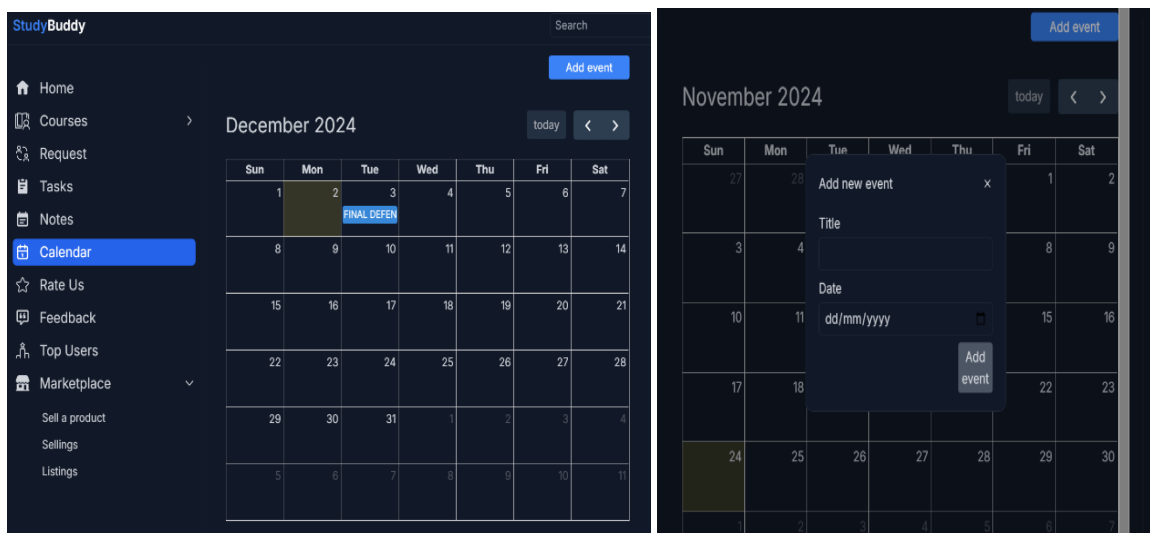
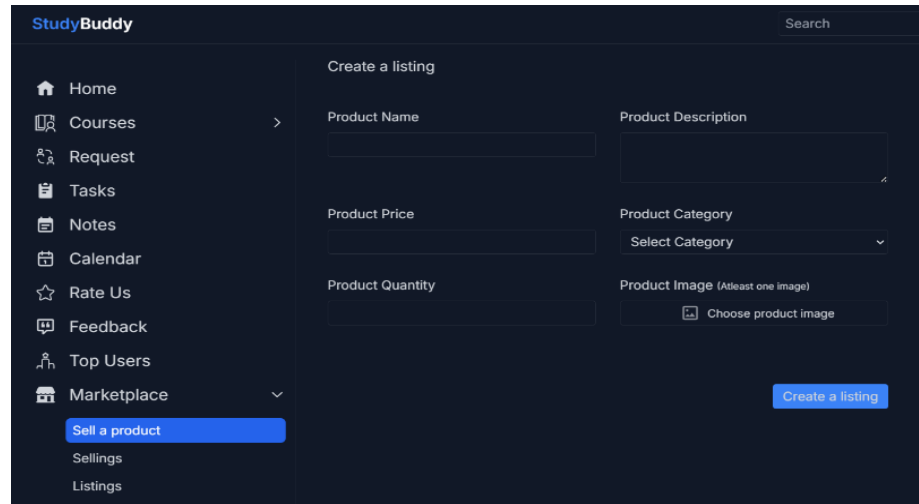


Figure 16 displays the calendar where the user can set an event that will serve as their reminder to keep track of their activities, promoting better time management and organization.

h) Marketplace

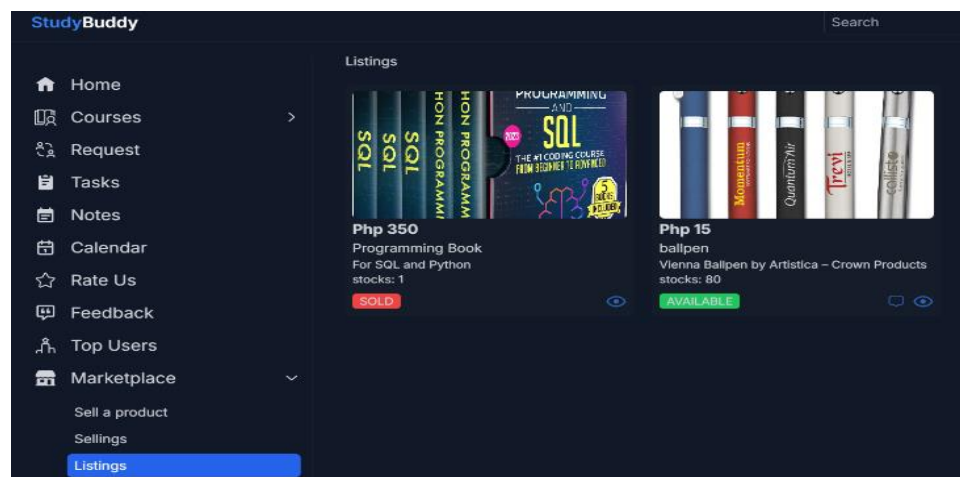
Figure 17

Marketplace



The screenshot shows the 'StudyBuddy' application interface. On the left is a dark sidebar with a list of navigation items: Home, Courses, Request, Tasks, Notes, Calendar, Rate Us, Feedback, Top Users, and Marketplace. The 'Marketplace' item is expanded, showing sub-options: 'Sell a product' (highlighted in blue), 'Sellings', and 'Listings'. The main content area is titled 'Create a listing' and contains a form with the following fields: 'Product Name' (text input), 'Product Description' (text area), 'Product Price' (text input), 'Product Category' (dropdown menu with 'Select Category' as the placeholder), 'Product Quantity' (text input), and 'Product Image' (with a note '(Atleast one image)' and a 'Choose product image' button). A blue 'Create a listing' button is located at the bottom right of the form.

Figure 17 displays the marketplace where the user can sell their study materials to other students. This feature is really helpful especially to working students.



Once you submitted the product you want to sell in the marketplace, you can see it on the listing section and the

other students can already inquire with the product they want to buy.

Evaluation of the System

The summary of the mean scores and verbal interpretation of the level of usability of the system is presented in Tables 12 to 15. In PSSUQ, the lowest score begins with 1 (strongly agreed), and the highest is 7 (strongly disagreed). The lower the mean score, the better the results, and satisfaction. ("PSSUQ," 2020).

Table 12

Summary of Usability Result

PSSUQ Sub Scale	Mean	Verbal Interpretation
System Usefulness (SYSUSE)	1.35	Very Useful
Information Quality (INFOQUAL)	1.50	Very Useful
Interface Quality (INTERQUAL)	1.47	Very Useful
Overall	1.45	Very Useful

Table 12 shows the overall usability test result and its interpretation using PSSUQ Version 3 Norms for the StudyBuddy. The System Usefulness subscale achieved a mean rating of 1.35. This mean rating is below the lower limit of 2.57 of the System Usefulness subscale of PSSUQ and was interpreted as very useful. This implies that the experts strongly agreed that the system is functioning correctly, valuable, provided a solution to their needs, and have improved their quality of work. (DeveloperOnRent, 2019).

Table 13

System Usefulness Result

No.	Criteria	Mean	Verbal Interpretation
1.	Overall, I am satisfied with how easy it is to use this system.	1.48	Very Useful
2.	It was simple to use this system.	1.24	Very Useful
3.	I was able to complete the tasks and scenarios quickly using this system.	1.40	Very Useful
4.	I felt comfortable using this system.	1.24	Very Useful
5.	It was easy to learn to use this system.	1.16	Very Useful

6.	I believe I could become productive quickly using this system.	1.56	Very Useful
System Usefulness		1.35	Very Useful

Table 13 provides a detailed analysis of the System Usefulness subscale from the Post-Study System Usability Questionnaire (PSSUQ) for StudyBuddy. The results reveal an overall mean score of 1.35, categorized as "Very Useful," indicating a highly positive user experience. Among the individual items, the statement "It was simple to use this system" and "I felt comfortable using this system" both achieved a mean score of 1.24, highlighting the app's intuitive design and its ability to foster ease of use and comfort among users. Similarly, the statement "It was easy to learn to use this system" received the lowest score of 1.16, showcasing exceptional usability and a minimal learning curve for first-time users.

The app also demonstrated strong results in productivity, with the statement "I believe I could become productive quickly using this system" achieving a mean score of 1.56. While slightly higher than other scores, it still indicates strong agreement that StudyBuddy effectively supports users in accomplishing tasks efficiently. Lastly, the statement "I

believe the system capabilities meet my requirements" scored 1.47, confirming that the app fulfills its functional goals by addressing users' academic and collaborative needs.

These results affirm that StudyBuddy provides a simple, user-friendly, and effective platform for CHMSU-A students. Its intuitive interface, low learning curve, and ability to enhance productivity align with the app's objective of improving collaboration and organization among students. The slightly higher productivity score suggests that further enhancements, such as tailored tutorials or streamlined workflows, could further optimize the user experience. Overall, the findings validate the app's success in addressing students' academic challenges while meeting its usability goals.

Table 14

Information Quality Result

No.	Criteria	Mean	Verbal Interpretation
7.	The system gave error messages that clearly told me how to fix problems.	1.60	Very Useful
8.	Whenever I made a mistake using the system, I	1.76	Very Useful

	could recover easily and quickly.		
9.	The information (such as online help, on-screen messages, and other documentation) provided with this system was clear.	1.48	Very Useful
10.	It was easy to find the information I needed.	1.24	Very Useful
11.	The information was effective in helping me complete the tasks and scenarios.	1.52	Very Useful
12.	The organization of information on the system screens was clear.	1.40	Very Useful
Information Quality		1.50	Very Useful

Table 14 focuses on the Information Quality subscale of the Post-Study System Usability Questionnaire (PSSUQ), which evaluates the clarity, accuracy, and relevance of the information provided by StudyBuddy. The results reveal a mean score of 1.50, categorized as "Very Useful," indicating that users found the app's information highly effective in supporting their academic tasks. Users rated the ease of finding information particularly high, with a score of 1.24, demonstrating that the app allows quick and efficient access to necessary details. The organization of

information on system screens received a score of 1.40, reflecting clear and intuitive design.

The clarity of on-screen messages and online help scored 1.48, affirming that users found these features easy to understand. Similarly, the app's ability to provide effective information for task completion was rated 1.52, emphasizing its utility. However, mistake recovery, with a score of 1.76, suggests an area for potential improvement to further enhance error handling and reduce user frustration.

Overall, these findings highlight StudyBuddy's strength in delivering accessible, well-structured, and relevant information, significantly enhancing user experience and productivity. Enhancements to mistake recovery processes could refine the app's usability further.

Table 15

Interface Quality Result

No.	Criteria	Mean	Verbal Interpretation
13.	The interface of this system was pleasant.	1.44	Very Useful

14.	I liked using the interface of this system.	1.44	Very Useful
15.	This system has all the functions and capabilities I expect it to have.	1.56	Very Useful
16.	Overall, I am satisfied with this system.	1.44	Very Useful
Interface Quality		1.47	Very Useful

Table 15 presents the results for the Interface Quality subscale of the PSSUQ, which measures user satisfaction with the system's design and functionality. The findings show a mean score of 1.47, categorized as "Very Useful," indicating a highly positive evaluation of StudyBuddy's interface. Users found the interface visually appealing and enjoyable to use, as evidenced by scores of 1.44 for both interface pleasantness and enjoyment of use. These ratings underscore the app's success in providing a user-friendly and engaging design.

The system also met users' functional expectations, achieving a score of 1.56, confirming its ability to support academic tasks effectively. Furthermore, the overall satisfaction score of 1.44 reflects a high level of user approval for the interface. These results affirm that StudyBuddy's interface is not only aesthetically pleasing

but also functional and easy to navigate. Future improvements, such as additional customization or personalization options, could further enhance the user experience and satisfaction.