FACULTY OF COMPUTING

اونيۏرسيتي مليسيا ڤهڠ

UNIVERSITI MALAYSIA PAHANG

PSM 1

CHAPTER 2 REPORT

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Project Title : Final Year Project Management System for Faculty of Computing

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In the era of technologies nowadays, there are many project management systems in the market. However, all the existing project management systems cannot be the perfect system that fulfils all the users' needs and requirements. Each of the existing project management systems in the market has its own specialized features, advantages and disadvantages. Hence, this literature review will contain information and comparison features between three existing project management systems. As the result, the comparison features between the three existing project management systems are able to analyse the pros and cons of that system. In fact, it is able to improve the functionality and feature of the proposed system including solving the problem and disadvantages that be extant in the existing project management system. Based on the study and analysis, the thesis about the Decision Support System for Final Year Project Management, Asana system, and Trello system are suitable and similar related to the proposed project management system.

2.2 Existing Systems/Works

2.2.1 Decision Support System for Final Year Project Management

The Decision Support System for Final Year Project Management is a web-based system or application (Ibukun.T. Afolabi, Ayodele A. Adebiyi, 2019). The Decision Support System for Final Year Project Management is the decision support system that is able to help the final year student in solving the problem and decision-making tasks. For instance, the system is able to determine and make the decision for the final year student in choosing the suitable project title and supervisor.

Basically, the Decision Support System for Final Year Project Management will provide the accurate prediction decision for the final year student based on their Cumulative Grade Point Average (CGPA), results from the courses of Software

Engineering, File Processing, Artificial Intelligence and Project Management (Ibukun.T. Afolabi, Ayodele A. Adebiyi, 2019). Moreover, the Decision Support System for Final Year Project Management also needs the skills and expertise of the supervisor in order to make the accurate decision prediction for the students in selecting a suitable supervisor.

Once the system has obtained all the required data, the system will make the prediction using the Java-Server Pages (JSP) in the NetBeans IDE and the machine learning algorithms which is the Naïve Bayes algorithm (Ibukun.T. Afolabi, Ayodele A. Adebiyi, 2019).

Figure 2.1 The main page of Decision Support System for Final Year Project Management

2.2.2 Asana system

The Asana system is a web-based and mobile application for project or work management. The Asana system was developed by Asana Inc (*Asana, Inc. 2021 Annual Report (Form 10-K)*, 2022). The Asana system is able to organize, assign and track the work or task in a more systematic ("Understand Asana's core features," n.d.). In addition, the Asana system was utilize its own programming language which is Scala ("Scaling Scala: How we chose our backend language and tooling - The Asana Blog," n.d.).

Scala language is a strong statically typed language that is compatible with object-oriented programming (OOP) and functional programming (Odersky & Rompf, 2014). The Scala language can be used in various application domains. Basically,

Scala language is able to run and compiled on Java and JavaScript platforms (Odersky, 2006).

Besides, the Asana system is also being built using the Amazon Web service and Luna framework for the user interface design and development ("Scaling Scala: How we chose our backend language and tooling - The Asana Blog," n.d.). The Luna framework is the in-house framework which is can be used within an Asana Inc. only ("Scaling Scala: How we chose our backend language and tooling - The Asana Blog," n.d.). Apart from that, the Asana system implements MySQL with InnoDB for the database in order to store the work information and so on.

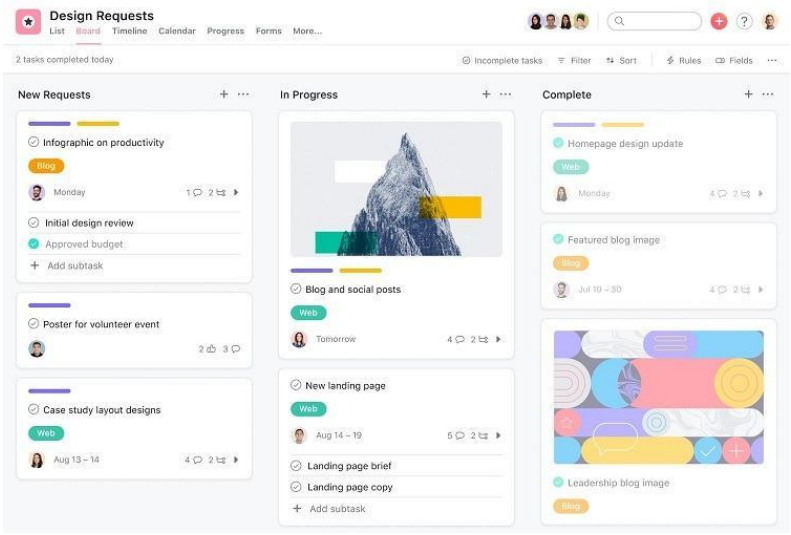

Figure 2.2 The example of Asana system interface

2.2.3 Trello system

The Trello system is a web-based application that has been developed by the Trello Enterprise ("Trello limits teams on free tier to 10 boards, rolls out Enterprise automation and admin controls," 2019). Trello system is able to unify the group members, manage the projects and organize the tasks in one platform using visualization features. The process and workflow of the Trello system is more implementing the Kanban style. The Kanban style is applying several stages to represent the progression of the project work or task (Gross & McInnis, 2003).

For example, in the Trello system, there are three stages which are the 'To Do' stage, 'Doing' stage, and 'Done' stage. Each stage has a different process. The 'To Do' stage was used to provide the project task using the Trello cards to the particular team members. Meanwhile, the 'Doing' stage significantly shows the project task in

the progression to be completed by that particular team member. Once the project task has been completed, the project task on the Trello card will be moved to the last stage which is the ‘Done’ stage.

Trello system was developed using CoffeeScript, JavaScript, Backbone.js, HTML5 language and mustache template (Kiefer, 2012). Mostly, the Trello system will utilize CoffeeScript and compiles it with JavaScript (MacCaw & Ashkenas, 2012). Moreover, the Trello system was developing the user interface using the mustache template.

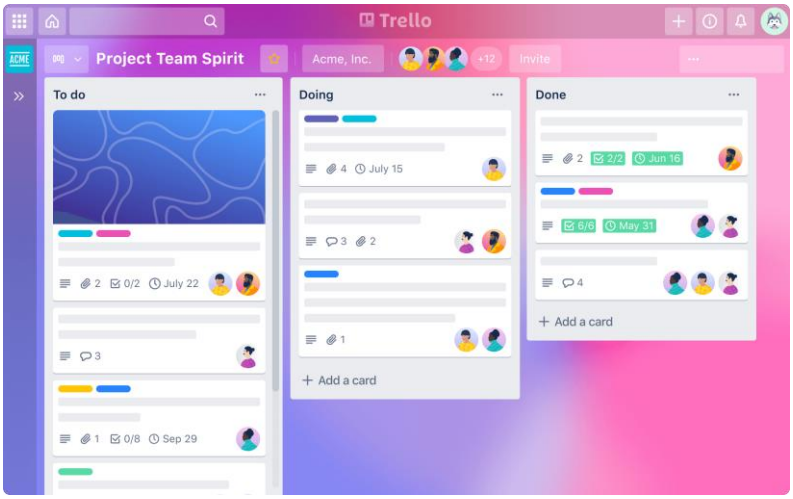

Figure 2.3 The example of Trello system interface

2.3 Comparison of Existing System

The three existing systems which are the Decision Support System for Final Year Project Management, the Asana system, and the Trello system will be analysed and compared based on their design, module, features, integration system that be used, and technique or method of the systems. Table 2.1 shows the summarise comparisons of three existing project management systems.

2.3.1 Decision Support System for Final Year Project Management

The Decision Support System for Final Year Project Management is a static and dynamic web-based system. The system is a static web-based system because of all the users will obtain the same interface and information on the main page once the user successfully login the system and the Decision Support System (DSS) interface. The dynamic web-based system can be seen in the prediction result interface since the data will be displayed differently based on the user's input and activities.

Besides, the design of the Decision Support System for the Final Year Project Management is simple but not attractive. The system has used a lot of colours and each interface uses a different colour. However, the Decision Support System for Final Year Project Management is able to make the user understand the operation of the system since its implements a simple and common metaphor.

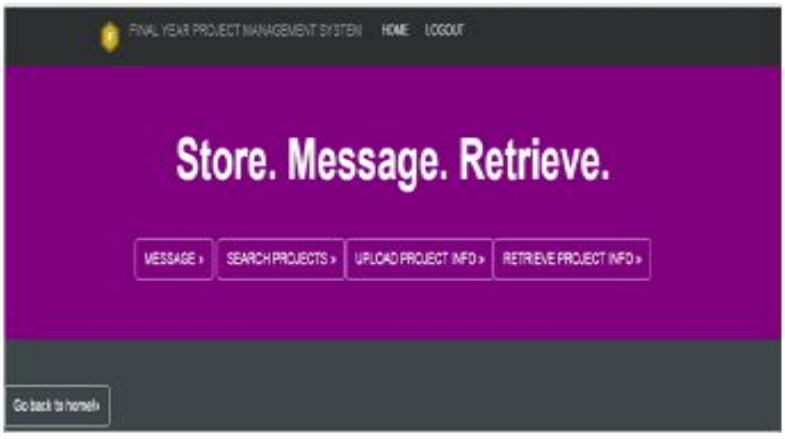

Figure 2.4 The design of the Decision Support System for Final Year Project Management

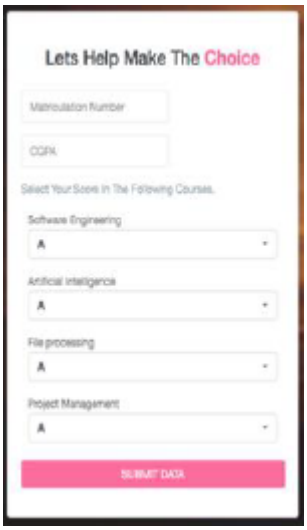

Figure 2.5 The example of a metaphor in the Decision Support System for Final Year Project Management

The Decision Support System for Final Year Project Management has 4 features. The first feature is the Message. The message is the communication platform between the student, supervisor and institution. The second, third and last feature is the function for the project information. For example, the student can find the previous students' projects by selecting the Search Projects feature. Besides, the student also allows to upload and retrieve their project information in the system once their project has been completed using the features of Upload Project Info and Retrieve Project Info.

Figure 2.6 4 features in the Decision Support System for Final Year Project Management

For the module, The Decision Support System for Final Year Project Management has 7 modules. The first module is the main page. The main page contains 4 functions which are Message, Search Projects, Upload Project Info and Retrieve Project Info. Each function will directly bring the user to the other modules.

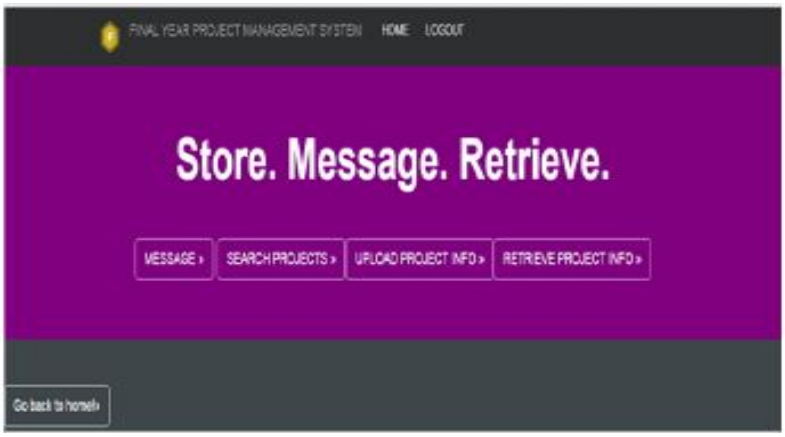

Figure 2.7 Main page module

The second module is Decision Support System (DSS) module. In the DSS module, the system has provided the form for the student or user to fill in the required data in order to help the system in making the prediction about the project title and supervisor for the student. Hence, the student needs to insert their metric number, CGPA and result of Software Engineering, Artificial Intelligence, File Processing and Project Management.

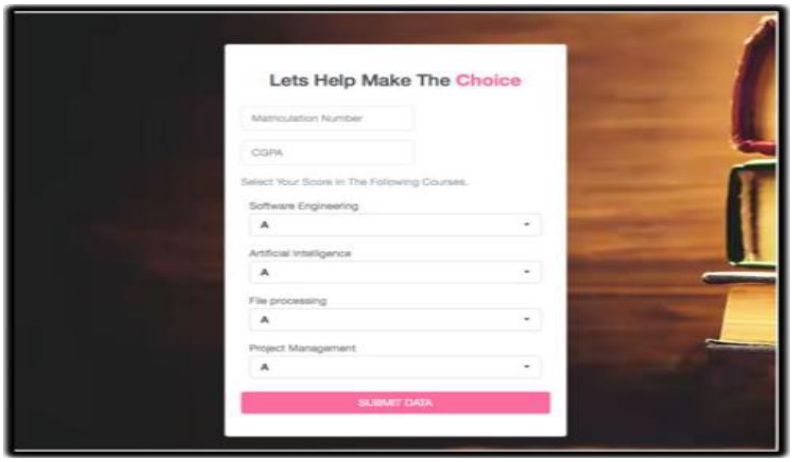

Figure 2.8 DSS module

The third module is the Suggestion module. The prediction result for the project title and supervisor will be shown in the Suggestion module.

Figure 2.9 Suggestion module

As mentioned before, in the Message module, the student is allowed to communicate with their supervisor. Moreover, the student also has the ability to find the previous project, upload and retrieve their project in the Search, Upload Project and Retrieve Project modules.

Moreover, The Decision Support System for Final Year Project Management has integration with machine learning algorithms which is the Naïve Bayes algorithm.

$$P(C_i|\mathbf{X}) = \frac{P(\mathbf{X}|C_i)\ P(C_i)}{P(\mathbf{X})}.$$

Figure 2.45 Naïve Bayes algorithm

$$P(\mathbf{X}|C_i) \approx \prod_{k=1}^{n} P(x_k|C_i).$$

Figure 2.10 Continue of Naïve Bayes algorithm

Lastly, The Decision Support System for the Final Year Project Management has been developed using the Naïve Bayes algorithm approach to make the accurate prediction and Java-Server Pages (JSP) by executing in the NetBeans IDE to create the interface.

2.3.2 Trello system

The Trello system is a dynamic web-based application. This is because all the information in the Trello system will be displayed dynamically according to the user data and behaviour. For instance, all the user's workspace or boards will be different based on their set style and information. Even, the user's recent view also changes variance according to the user's past activities.

Besides, the interfaces of the Trello system are very simple and interactive. This is because the interface of the Trello system is not crowded with many information at one interface. Each feature and function of the Trello system is very neatly organized and appealing on the interface. Moreover, the Trello system was use the common language (metaphor). Hence, the user is able to understand the flow or function of the system without user guidance. In fact, the Trello system managed to achieve a flexible and user-friendly system.

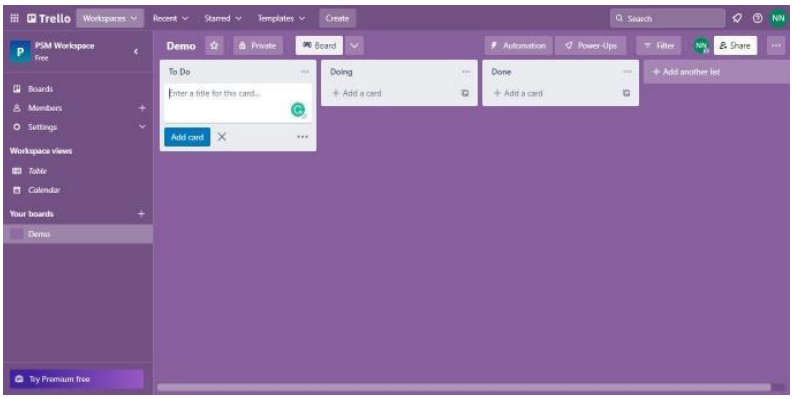

Figure 2.11 The design of the Trello system

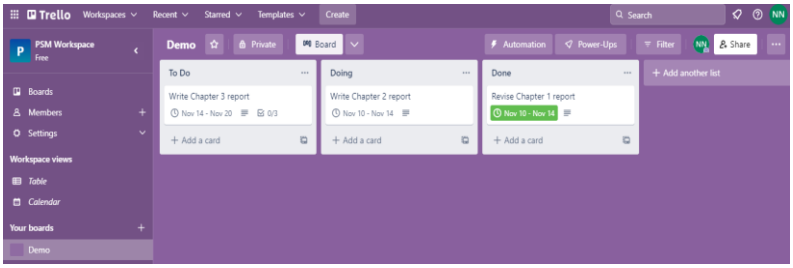

Figure 2.12 The example of a metaphor in the Trello system

Furthermore, the Trello system has proper and flexible features. Each feature in the Trello system is useful and related to project management. For instance, the Trello system has a feature to add group members, labels, and checklists in order to

accomplish the project. In addition, the Trello system also has a calendar feature to create the due date for the task. The user is able to attach the important file, pictures or folders by utilizing the attachment function.

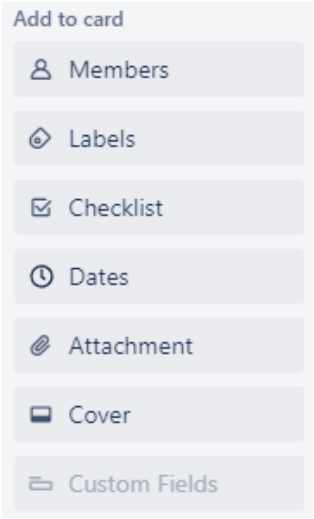

Figure 2.13 List of features to add in the task card

Apart from that, the Trello system has provided many action functions for the user to manage each project task.

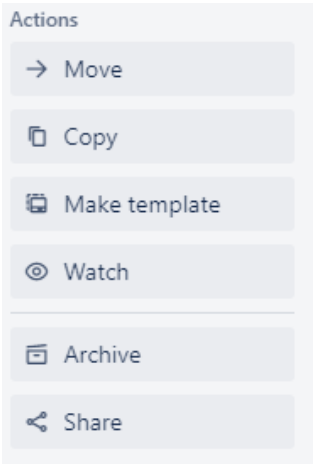

Figure 2.14 List of action features

The Trello system has 12 modules which are Home, Template, Board, Table, Calendar, Highlights, Views, Members, Setting, Automation, Power up, and Description modules. Each module has different information and functionality. Even though, the Trello system has 12 modules but, there has 4 modules that are important and need to be highlighted. The first module is the main page called the Home. The Home module contains information of the project task. For instance, the due date of

the task and two functional buttons. If the user successfully completes the project task, the user can click the ‘Complete’ button or otherwise.

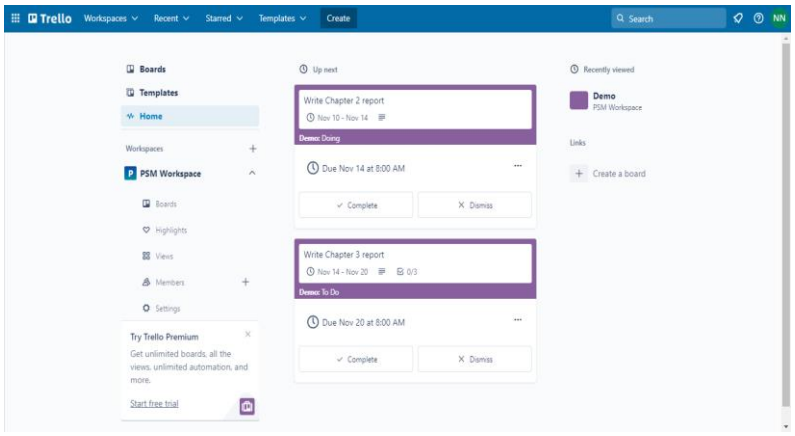

Figure 2.15 Home module

The second module is the Template module. In the Template module, the Trello system allow the user to utilize the template provided for the project board. Hence, it becomes one of the attractions for the user to use Trello system since they can decorate their project board based on their preference.

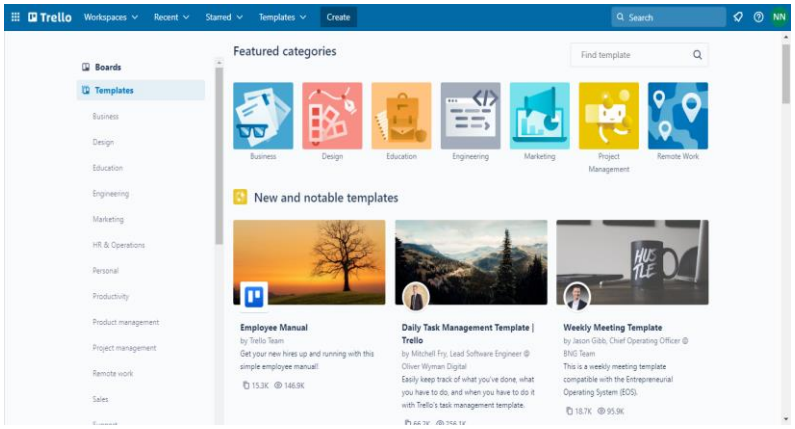

Figure 2.16 Template module

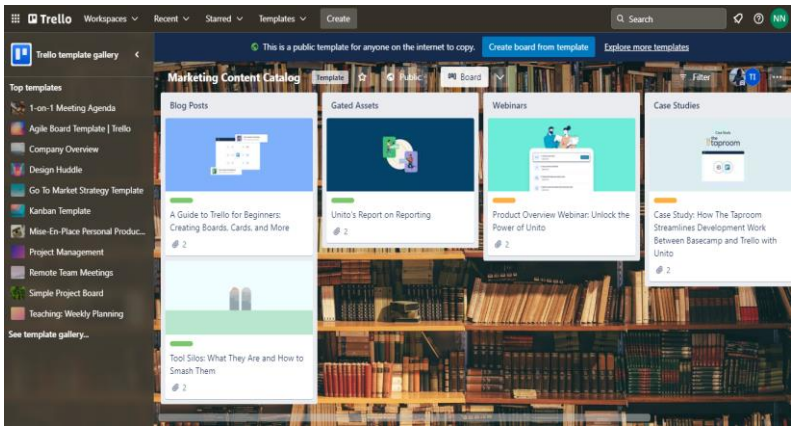

Figure 2.17 Example of the template provided

The third module is the Board module. The user is able to provide and view the task of the project on each list at the Board module. Basically, the Trello system will prepare the three basic lists such as ‘To Do’, ‘Doing’, and ‘Done’ lists. However, the user is able to change the three basic list names or build another list. Besides, the user is also able to drag the task to the other list. For example, the user is able to drag the task from the ‘Doing’ list to the ‘Done’ list once they successfully complete the task.

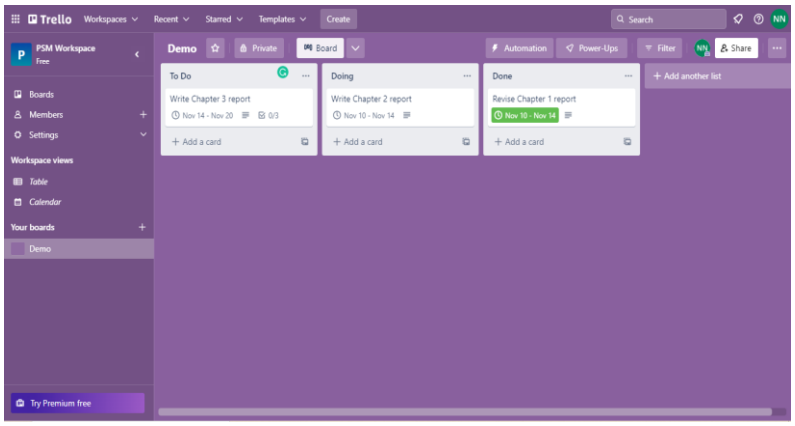

Figure 2.18 Board module

In the Description module, the user is able to write the description of the task in more detail, assign the group members to the task, create the due date of the task, and attach the files or folders for their project reference. In addition, the user is also able to create a checklist and label in order to highlight the important work thus, ensure the task is done completely without missing anything. Besides, the Trello system allows the group members to leave comments about the task. Hence, the Trello system

makes it convenient for the group members to communicate with each other. The action functions are in the Description module.

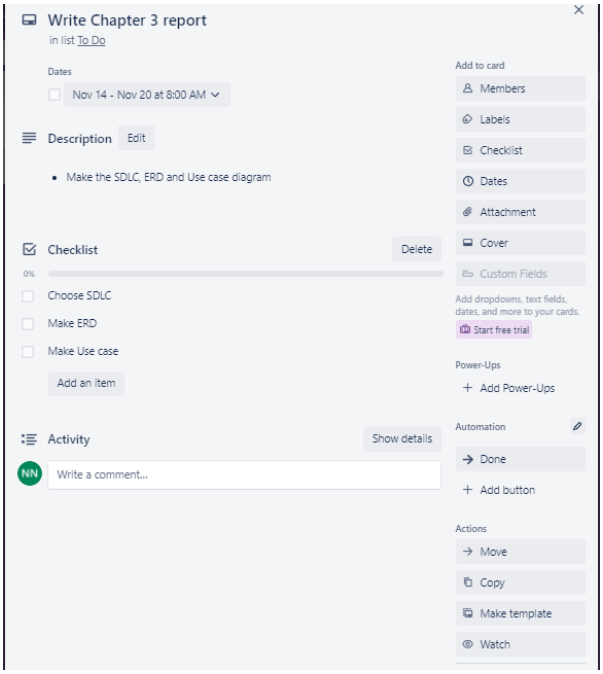

Figure 2.19 Description module

In the addition, the Trello system has developed the ‘Power-Ups’ function to make it conducive for the user to make the combination between their project progression with other software tools. The other tools that allow integration and work with the Trello system are Box, Jira. GitHub, Google Chat, Google Drive, OneDrive, Twitter, CloudApp, Agile Retrospectives, and so on.

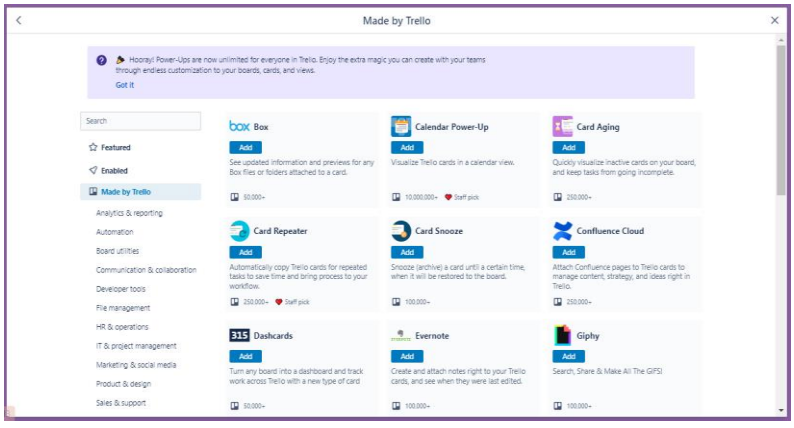

Figure 2.20 List of integrated tools for Trello system

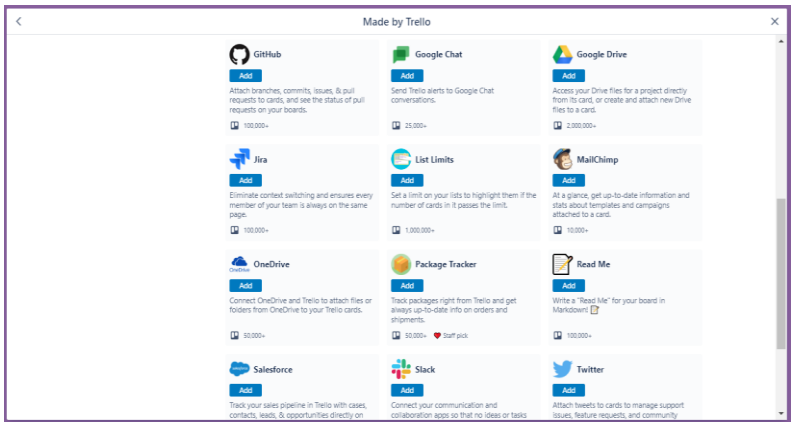

Figure 2.21 Continue a list of integrated tools for the Trello system

Lastly, the Trello system has utilized the Scrum process for the development methodology and the Kanban board (“IEEE Xplore Full-Text PDF:,” n.d.). The Kanban board has been implemented in the Board module.

2.3.3 Asana system

Asana system is a dynamic web-based application due to the project progression will changed every day based on the user’s input and updates. Besides, the design of the Asana system is simple and more minimalist. Each module or interface contains the appropriate and important information for project management. In addition, all the information was presented in an organized thus, all the interfaces did not mess up with the many information. Furthermore, the design of the Asana system is more formal and presentable. Moreover, the Asana system also uses a simple metaphor for the user to utilize the system in easier.

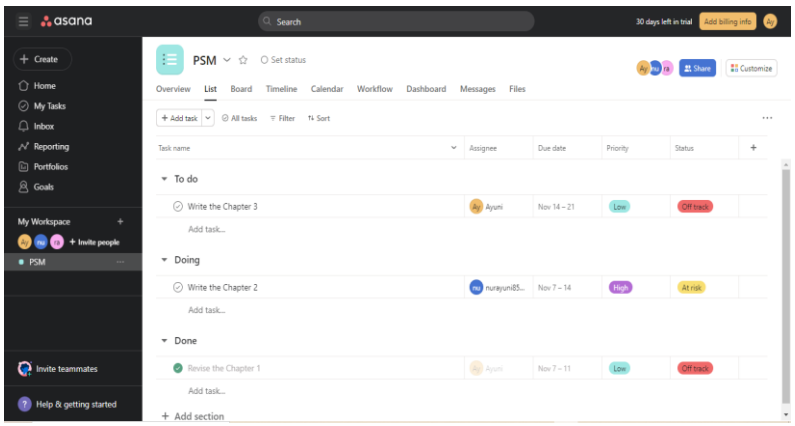

Figure 2.22 The design of the Asana system

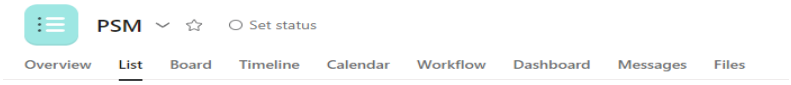

Figure 2.23 The example of a metaphor in the Asana system

For the feature, the Asana system provides various features. For example, the Asana system has prepare the priority and status features for the project task. The user is able to declare the importance level of the project task whether Low, Medium or High through the priority feature. Hence, the group member can get the notification to complete the project task based on priority. Meanwhile, the status feature can well inform the user, manager or group member about the status progression of the project task whether is on the track, off track or at a risk.

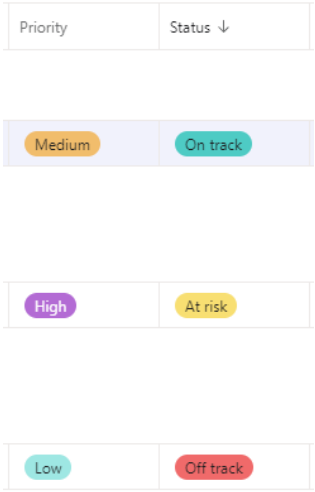

Figure 2.24 Priority and status features

In addition, the Asana system has a specialization feature for the user to view or display the project task progression based on their preference. For instance, if the user wants to view the project task progression in the list style, they can select the list feature. Otherwise, they can select the board, timeline, and calendar features once they want to view the project task progression in the Kanban board, Gantt Chart, and Calendar styles.

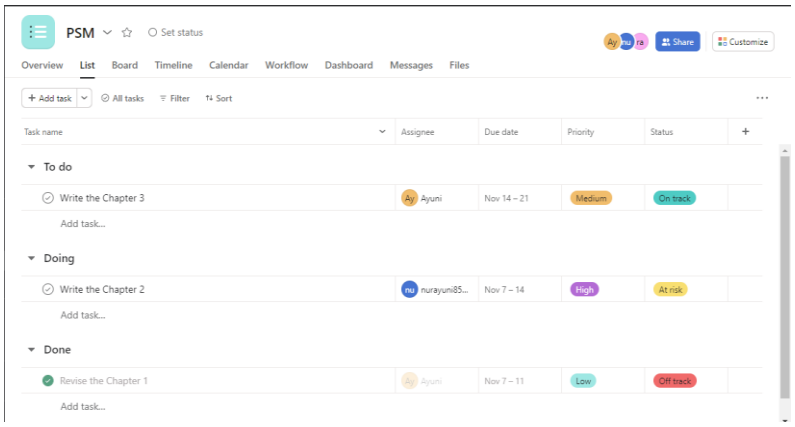

Figure 2.25 List feature

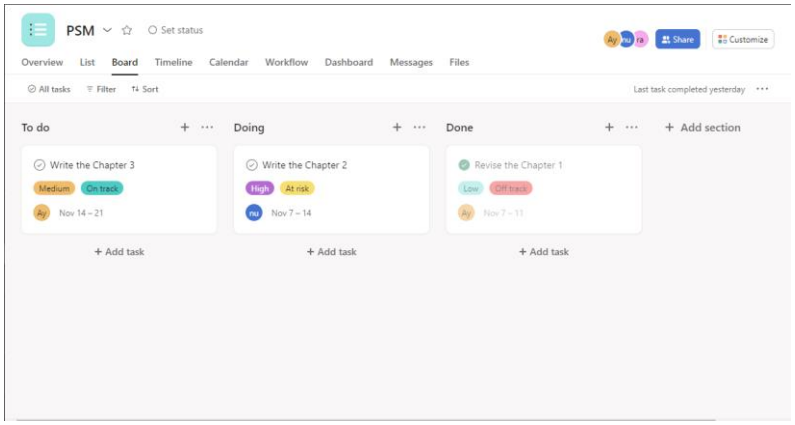

Figure 2.26 Board feature

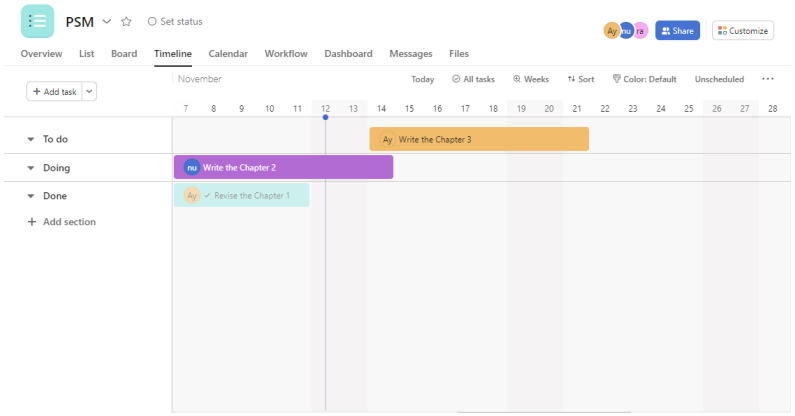

Figure 2.27 Timeline feature

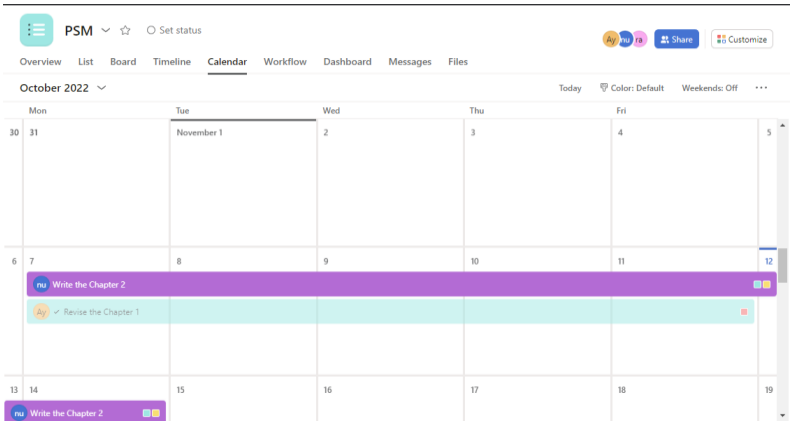

Figure 2.28 Calendar feature

Similar to the Trello system, the Asana system also has the features to add the project task, subscription to the task, subtask, assign the person to handle the task, create a deadline of the task, and attach the file, folder or picture for the task material.

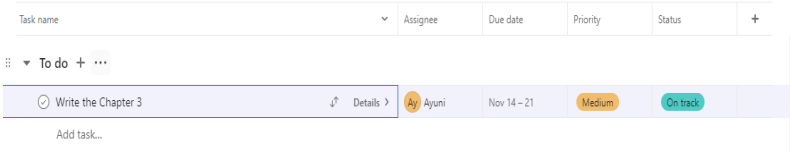

Figure 2.29 Add task feature

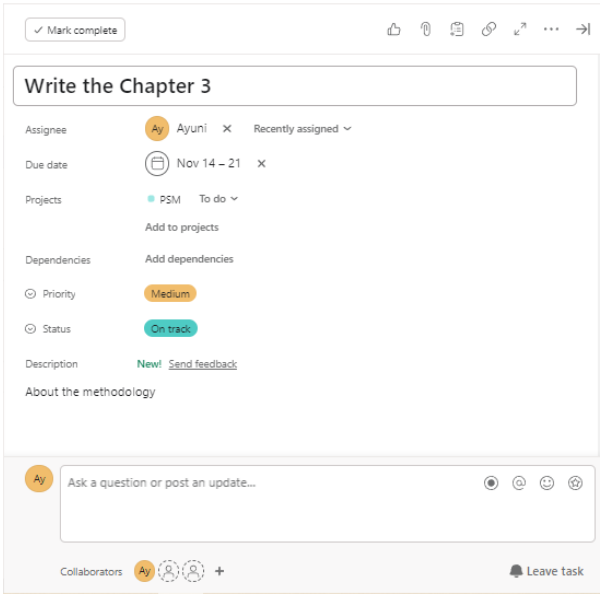

Figure 2.30 Project task feature

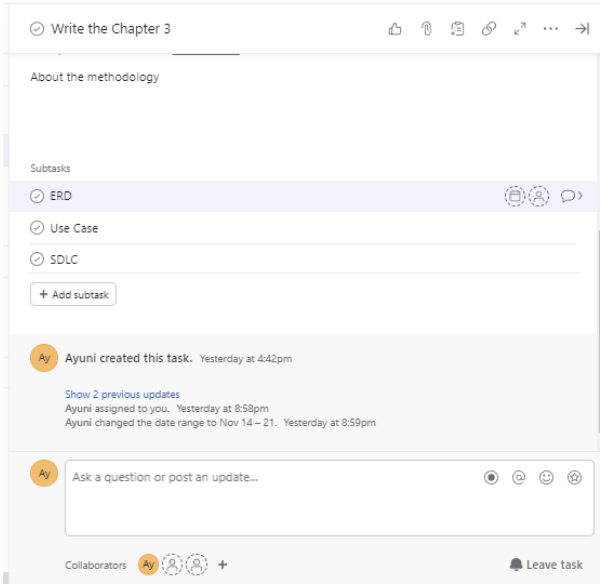

Figure 2.31 Subtask feature

The Asana system has 15 modules. However, the 15 modules were apart into two parts. The modules for the first part were developed for the user to preview all the project progression that manage or create by the user. Those modules are Home, My Tasks, Inbox, Reporting, Portfolios, and Goals.

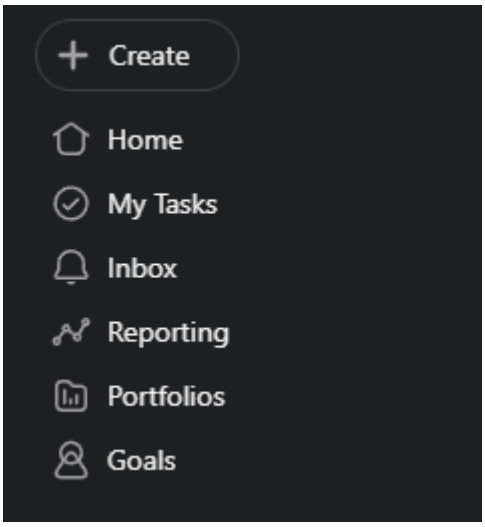

Figure 2.32 First part modules

Meantime, the modules for the second part were developed to preview the one project progress only from the several projects. Those modules are Overview, List, Board, Timeline, Calendar, Workflow, Dashboard, Messages, Task Details, and Files.

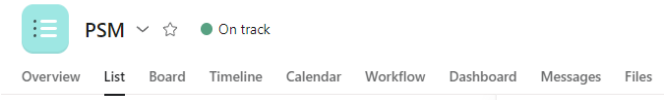

Figure 2.33 Second part module

The home module was developed for the user to view all the user's priorities tasks, projects, and the list of people which is the user collaborates for the projects.

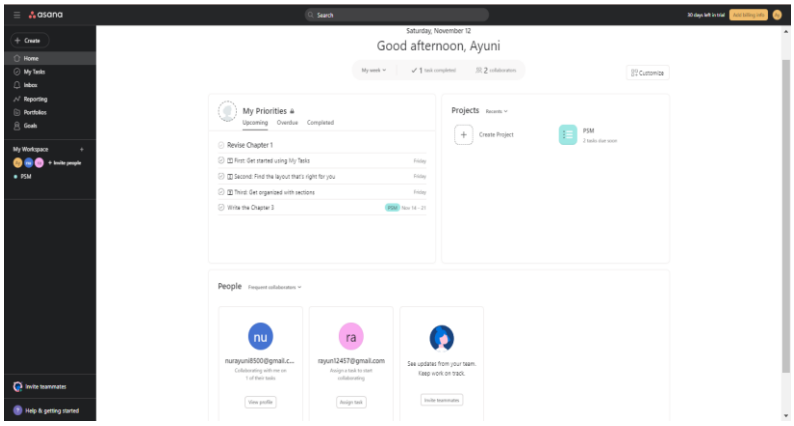

Figure 2.34 Home module

In the My Tasks module, the user is able to view the information of the user's task from all the projects either through a list, board or calendar include view all the files from the project. In addition, the user is also able to add additional tasks or files in the My Tasks module.

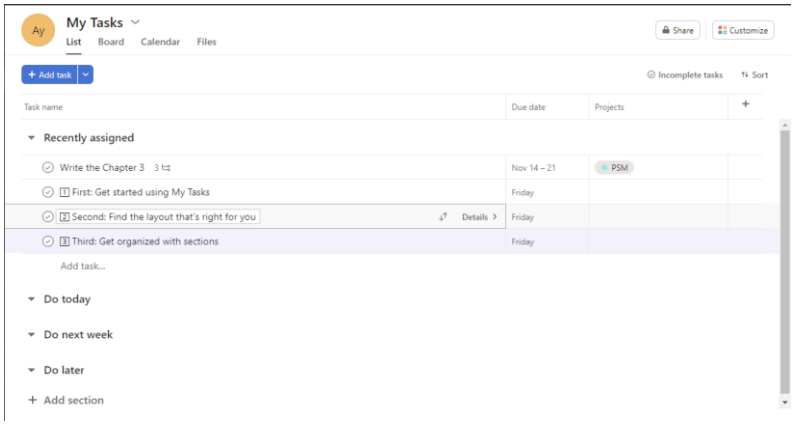

Figure 2.35 My Task module for list view

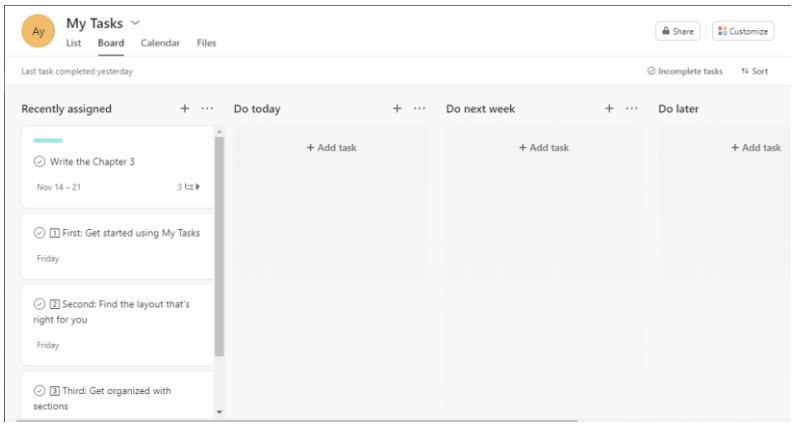

Figure 2.36 My Task module for board view

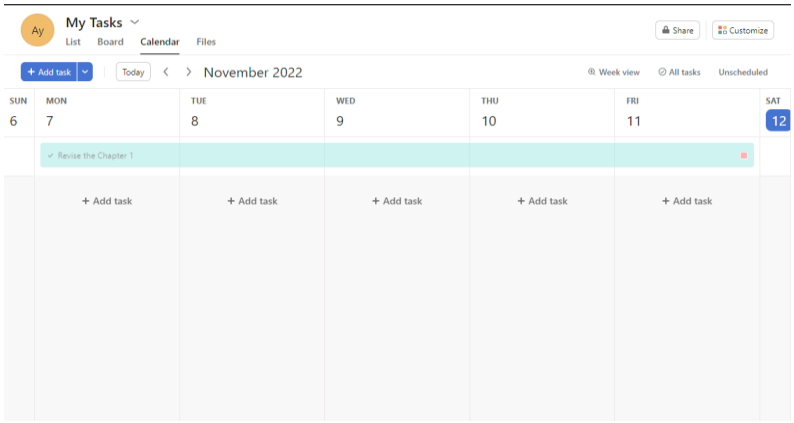

Figure 2.37 My Task module for calendar view

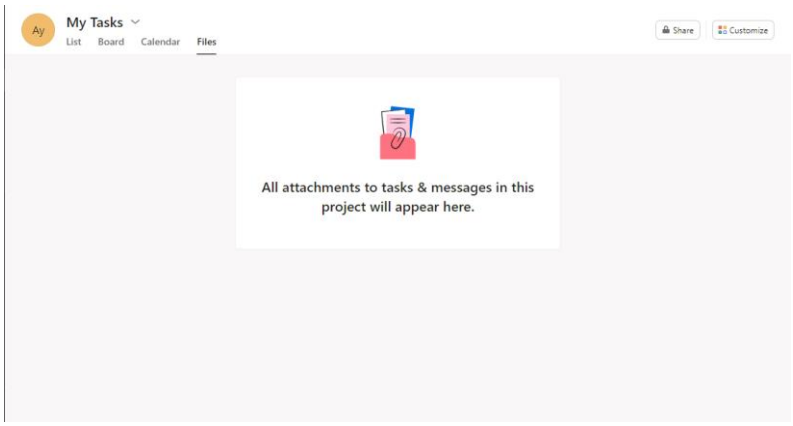

Figure 2.38 My Task module for uploading the material

In the Inbox module, the user can send messages to the group members and read messages similar to email.

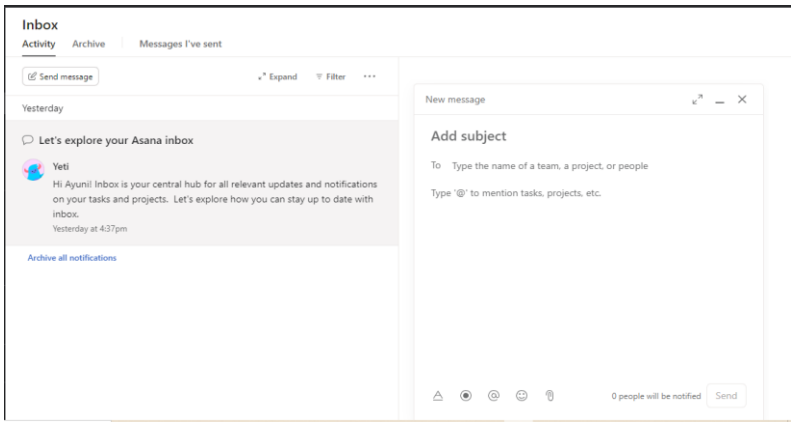

Figure 2.39 Inbox module

The Asana system has provided the visualization report of all projects through graphs and pie charts in the Reporting module.

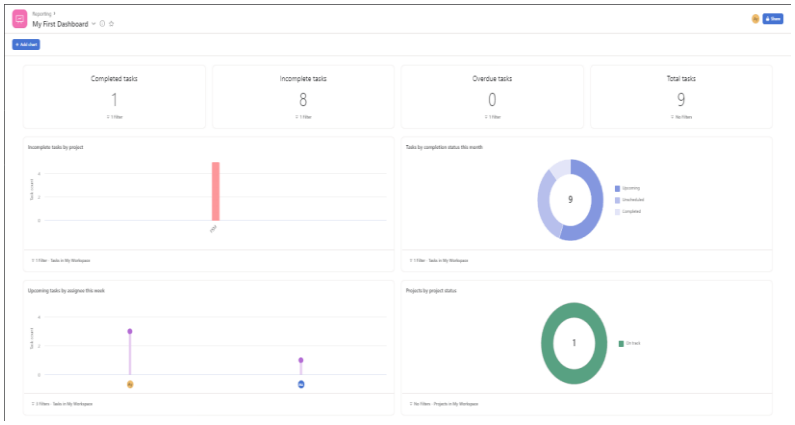

Figure 2.40 Reporting module

Apart from that, the user is able to view the task of each project including the assigned person, due date, priority, and status in the List, Board, Timeline, and Calendar modules. The difference for each module is the method and style that has been developed to display the information of the task project. For example, the user is able to view the task project in Kanban style once the user selects the Board module.

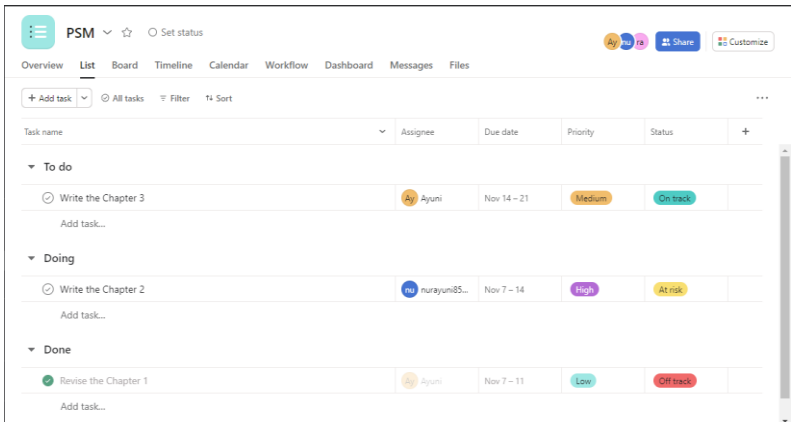

Figure 2.41 List module

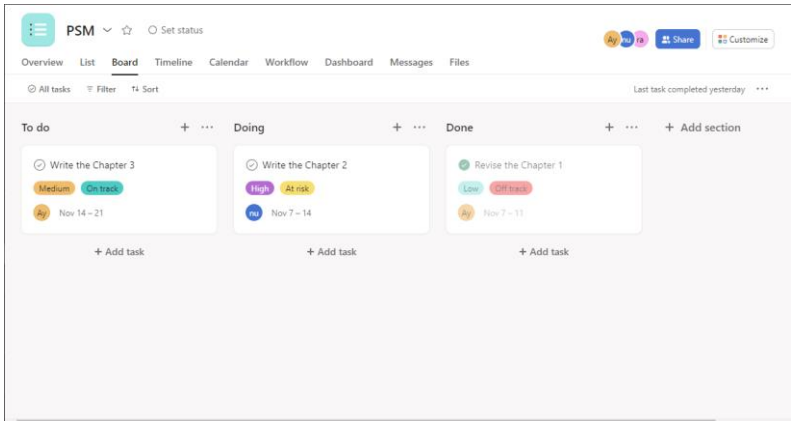

Figure 2.42 Board module

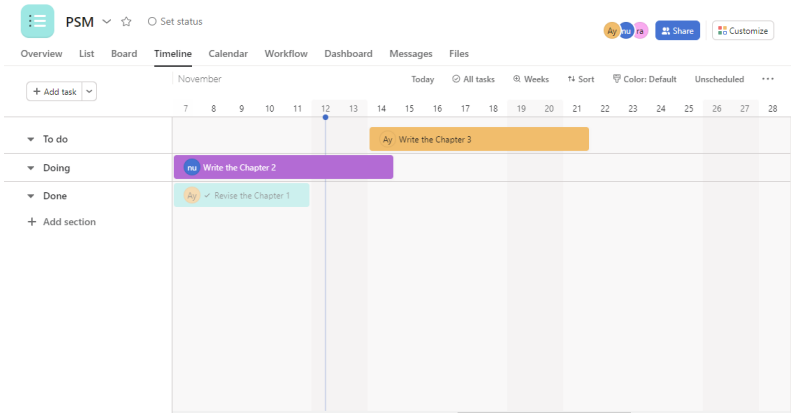

Figure 2.43 Timeline module

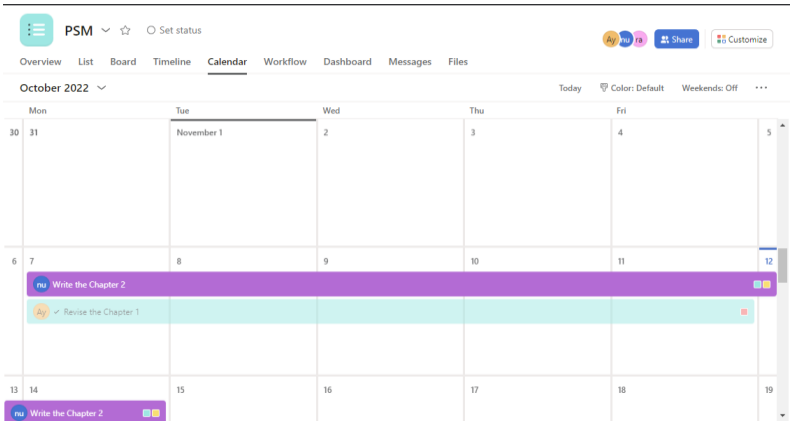

Figure 2.44 Calendar module

Moreover, the Messages and Files module is the platform for the user to send the message to the other group member of that project and upload the material for the project.

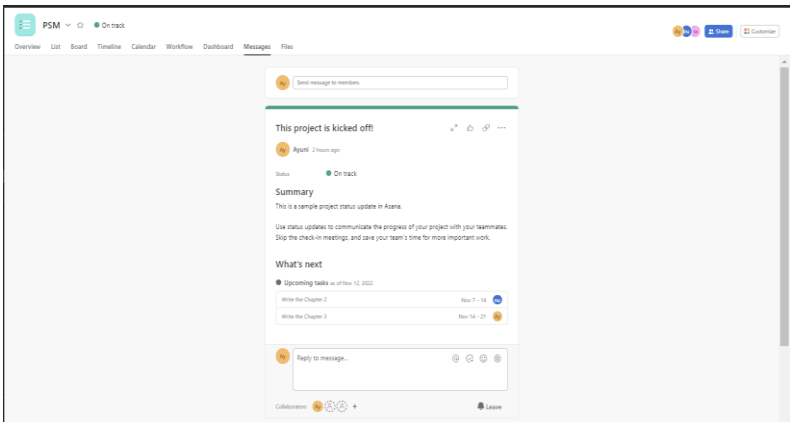

Figure 2.45 Messages module

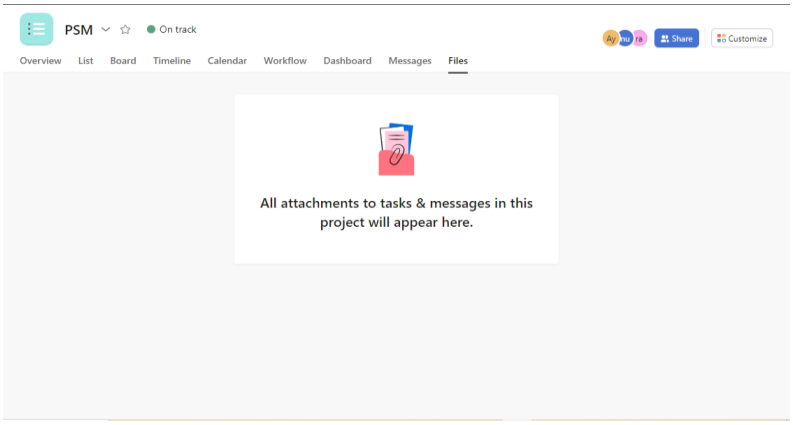

Figure 2.46 Files module

The user is able to get the information about the summary of a project progression through a graph and pie chart in the Dashboard module.

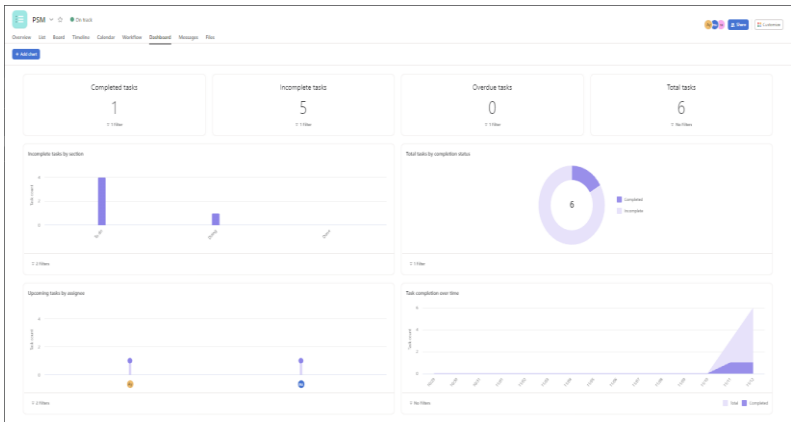

Figure 2.47 Dashboard module

Furthermore, the user is allowing to integrate the Asana system with the other applications such as Google Drive, Slack, Zoom, Microsoft Teams, Outlook, Box, SharePoint and so on.

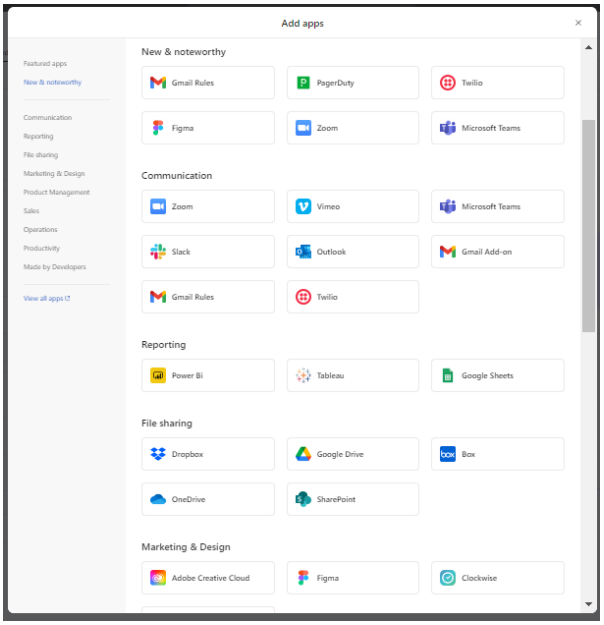

Figure 2.48 List of integrated tools for Asana system

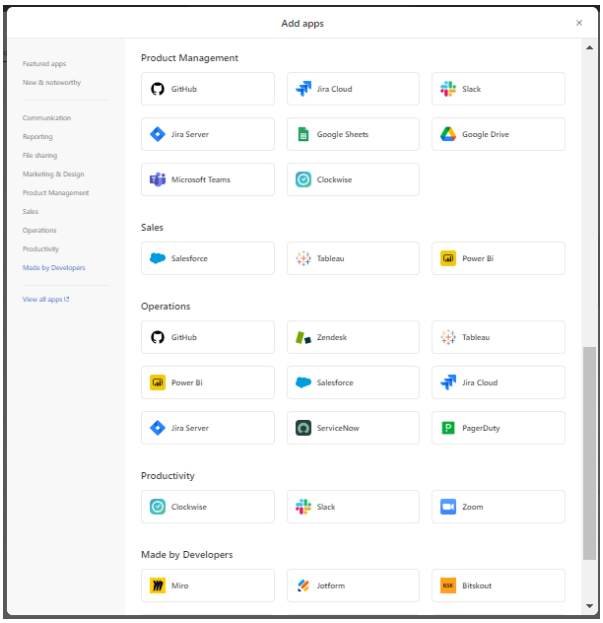

Figure 2.49 Continue a list of integrated tools for Asana system

Lastly, for displaying the information of the project task, the Asana system has utilized the list, Kanban, Gantt Chart and calendar method. Meanwhile, the Asana system also has implemented the graph and pie chart to visualization the progression of the whole and the certain project.

2.3.4 Analysis of existing system comparison.

Table 2.1 The comparison summary between three existing system

Element	Decision Support System for Final Year Project Management	Trello system	Asana system
Web application categories	✓ Static web-based system. ✓ Dynamic web-based system.	✓ Dynamic web-based system.	✓ Dynamic web-based system.
Design	✓ Simple. ✓ Unattractive.	✓ Simple. ✓ Interactive.	✓ Simple. ✓ Minimalist.
Metaphor (Language)	✓ Simple.	✓ Common	✓ Simple.
Features	✓ Message.	✓ Members.	✓ Priority.

	✓ Search Projects. ✓ Upload Project Info. ✓ Retrieve Project Info.	✓ Labels. ✓ Checklists. ✓ Dates (Calendar). ✓ Attachment. ✓ Cover. ✓ Move. ✓ Copy. ✓ Make template. ✓ Watch. ✓ Archive. ✓ Share.	✓ Status. ✓ List. ✓ Board. ✓ Timeline. ✓ Calendar. ✓ Add task. ✓ Subscription. ✓ Subtask. ✓ Assignee. ✓ Due date. ✓ Attachment.
Module	✓ Main Page. ✓ Decision Support System (DSS). ✓ Suggestion. ✓ Message. ✓ Search. ✓ Upload Project. ✓ Retrieve Project.	✓ Home. ✓ Template. ✓ Board. ✓ Table. ✓ Calendar. ✓ Highlights. ✓ Views. ✓ Members. ✓ Setting. ✓ Automation. ✓ Power up. ✓ Description.	✓ Home. ✓ My Tasks. ✓ Inbox. ✓ Reporting. ✓ Portfolios. ✓ Goals. ✓ Overview. ✓ List. ✓ Board. ✓ Timeline. ✓ Calendar. ✓ Workflow. ✓ Dashboard. ✓ Messages. ✓ Task Details. ✓ Files.
Integration system	✓ Naïve Bayes.	✓ Box. ✓ Jira. ✓ GitHub. ✓ Google Chat. ✓ Google Drive. ✓ OneDrive.	✓ Google Drive. ✓ Slack. ✓ Zoom. ✓ Microsoft Teams. ✓ Outlook. ✓ Box.

		✓ Twitter. ✓ CloudApp. ✓ Agile Retrospectives.	✓ SharePoint. ✓ Google Sheets.
Method/ technique	✓ Java-Server Pages (JSP). ✓ NetBeans IDE. ✓ Naïve Bayes.	✓ Scrum methodology. ✓ Kanban board.	✓ List. ✓ Kanban board. ✓ Gantt Chart. ✓ Calendar. ✓ Graph. ✓ Pie Chart.

2.4 Relevance of Comparison with Project Title

2.4.1 Comparison between existing system and project title

1. Decision Support System for Final Year Project Management

The advantage of the Decision Support System for Final Year Project Management is the system has provided accurate decision-makers. Hence, the system is able to help solve the final year students' problem in the first process of project progression which is finding the project title and supervisor. Basically, this system is suitable for the final year student who is hesitant in making a decision for their project. In short, the Decision Support System for Final Year Project Management is a great system to avoid the burden for final year students in completing their project since the project is based on their capability, interest and skill.

Unfortunately, the Decision Support System for Final Year Project Management has shortcomings in the design. The design of this system is unattractive and difficult to gain the user's impression. Therefore, the Decision Support System for Final Year Project Management can be used as a reference in improving and avoiding the mistake in designing the proposed system.

2. Trello system

The pros of the Trello system are the system an easier and user-friendly system. The Trello system is not a complex system until needed guidance in order to use it. All the project tasks in the Trello system can simply move by drag and drop method only. In fact, the Trello system is suitable software to help in creating and managing smaller project progression in a more organized and systematic ("Trello Review - The Good and The Bad for 2022," n.d.). In the Trello system, the user is able to write a details description of the task and create a deadline for the task. In addition, the design of the Trello system is very appealing.

However, the cons of the Trello system are this system did not have a visualization report about the project in order to monitor the progression of the project in more detail. In the Trello system, the supervisor is able to monitor the project task based on the task being moved from one phase to another phase until it is complete. For example, the supervisor is able to know the supervisee is doing their project task once the task was moving from the 'To Do' phase to the 'Doing' phase. Once the

project task has been in the ‘Done’ phase, the supervisor cannot obtain the summary and performance of the student’s project. The supervisor only can check and leave a comment if there is a correction that needs to be done by the supervisee.

Therefore, the proposed system which is the Final Year Project Management System for the Faculty of Computing will implement the real-live project progression report in order to help the supervisor know the problem and status of the student’s project. In fact, the supervisor is able to take quick action to help their supervisee who faces the project problem based on the shown status level of the project. The summary of project progression in the Final Year Project Management System for the Faculty of Computing will be shown in the graph and pie chart to make it easier for the supervisor to understand and monitor their supervisee.

3. Asana system

The advantage of the Asana system is that system has the great task management (“Asana Pros and Cons: Top 4 Advantages & Disadvantages,” n.d.). Asana system has provided the features of priority level and status task level for the user to notice and make a preparation for any possibility or obstacle. Besides, the features of priority level and status task level also can help the user in planning and making a decision about which task that needs to be performed first. Apart from that, the Asana system has implemented the project progression report or summary for the user to review. As the result, the user can check or view their project progression information. For instance, the user is allowed to view the total of completed tasks, incomplete tasks, and overdue tasks.

The disadvantage of the Asana system is this system has a shortcoming with the assigned task. The Asana system can allow assigning one person per task only (“Top Asana Pros and Cons in 2022 | Project-Management,” n.d.). As the consequence, there will be multiple and duplicate tasks in order to assign to many people. Moreover, the Asana system has too many features that need to be set to create one task only (“Asana Pros and Cons: Top 4 Advantages & Disadvantages,” n.d.). Many features also contribute to the system becoming inflexible and difficult. In short, the Asana system is not a suitable system to be utilized by the supervisor due to the supervisor will be overloaded with work.

Thus, the Final Year Project Management System for the Faculty of Computing is able to minimize the supervisor's work. This proposed system will allow the supervisor to assign one task to many supervisees at the same time in an easier way like email. In addition, the Final Year Project Management System for the Faculty of Computing will develop important and useful features only in order to avoid the supervisor and supervisee from overwhelming with the required action and work for completing or creating the task.

2.4.2 Comparison of three existing and proposed system

Table 2.2 The comparison summary between three existing system and proposed system

Features	Decision Support System for Final Year Project Management	Trello system	Asana system	Final Year Project Management System for Faculty of Computing
Simple and attractive design.	✗	✓	✓	✓
User-friendly system.	✓	✓	✓	✓
Suitable to manage the project progression.	✗	✓	✓	✓
Provide the detail description for the project task.	✗	✓	✓	✓
Communication platform.	✓	✓	✓	✓
Create deadline of the project task.	✓	✓	✓	✓
Visualization report for project progression.	✗	✗	✓	✓
Status of project task.	✗	✓	✓	✓

Priority of project task.	✗	✗	✓	✓
Assign project task to many supervisee at one time.	✗	✓	✗	✓
Supervisor quota	✗	✗	✗	✓
Supervisor research group.	✗	✗	✗	✓
Attachment/submission platform	✓	✓	✓	✓
Supervisor approval	✗	✗	✗	✓
List of evaluator for project evaluation.	✗	✗	✗	✓

Based on the Table 2.2, the proposed system will cover all the listed features. In fact, the proposed system managed to implement the advantage and make the disadvantage of the existing system as the improvement for the proposed system.

2.5 Summary

In conclusion, the comparison of the three existing systems is able to make the improvement in the features and design of the proposed system. The features in the Final Year Project Management System for Faculty of Computing is able to manage the beginning process of the project until the end in more efficiently. This is because the Final Year Project Management System for Faculty of Computing has provide the supervisor quota for the supervisor and supervisee. Hence, the supervisor quota able to make it convenient for the supervisee to find their preferred supervisor based on the quota provided. In addition, the supervisor also able to aware the quota that they obtain in order to take the student as the supervisee.

Moreover, the Final Year Project Management System for Faculty of Computing has implement the visualization report of supervisee project progression. Thus, the supervisor able to obtain the performance of the supervisee project and help the supervisee problem. The supervisee project progression report will be shown using the status, graph and pie chart. Besides, the Final Year Project Management System for Faculty of Computing also provide the communication platform for the supervisor and supervisee to communicate with each other. For instance, communication platform that able the supervisee to approach the lecturer to become their supervisor, discussion about the project and provide the project task for the supervisee.

Apart from that, the Final Year Project Management System for Faculty of Computing has the submission platform for the supervisee to submit their project progress and project documentation to the supervisor for the checking purpose. Furthermore, the Final Year Project Management System for Faculty of Computing has provide the supervisor research group and evaluator list for the supervisee. The supervisor research group can help the supervisee to determine the suitable supervisor for their project. Meanwhile, the evaluator list will help the supervisee aware who will be evaluate their project during the evaluation.

As the result, the proposed system is able to achieve a better web-based system in helping the supervisor and supervisee in managing the final year project in a more organized, systematic and efficient. Last but not least, the Trello system has utilized the Scrum methodology (“IEEE Xplore Full-Text PDF:,” n.d.) and based on the analysis, the top 3 methodology that will be used for the project management

development are Waterfall, Agile and Scrum methodologies (“Top 10 Most Popular Project Management Methodologies,” n.d.). Therefore, the Final Year Project Management System for Faculty of Computing will be used the Agile methodology. The detail explanation about the Agile methodology of the Final Year Project Management System for Faculty of Computing will be provided in the Chapter 3(Ibukun.T. Afolabi, Ayodele A. Adebiyi, 2019).

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