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PHASE 1: PROJECT PROPOSAL & PLANNING

< EVENT MANAGEMENT SYSTEM>

SECD2613-03 System Analysis and Design

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1. Introduction

Due to the rising use of social media, we have actually come up with an idea for the usage of postgraduate students to do research and connect with real people who share the same interest together. This helps them to actually connect with one another and do research. Not only that, Nexscholar can be used to also book events and purchase tickets. This could make postgraduates' life easier where they don't have to break their heads thinking about where they should go to make their research worthwhile. This app would give them notifications if there's an upcoming event where they can buy the tickets straight away from the app itself. Sounds convenient isn't it?

Encik Najmi can only post it and acts as middle-men. This event can be booked online and subscribed to tickets. Want to know how to attend the event.The event details would be sent to whatsapp. Anyone would be able to join the event. This would be a good opportunity for undergraduate students just in case if they want to get more informations.The tickets can be purchased online from any account.

We want to improve Nexsholar performance in terms of online banking, order stocking, analysis of order data. By this Nexscholar would be better and many other postgraduate student will enjoy using this application.

2. Background Study

Currently Nexscholar is using an old method to track down information by using excel and tables. From this we are trying to get it more advanced by putting in some effort in order for the website to automatically detect and fill in the table. Not only that, we are also planning to do a betterment on this app.

Not only that, one needs to log in to the platform to check if the tickets are booked for the event, which is very troublesome for postgraduate students to check from time to time. Not only that, they also fail to analyze the order of data.

In a nutshell, we are going to make this Nexscholar to be more convenient for the usage.

3. Problem Statement

1. Exclusivity in Event Creation:
A crucial restriction on the NexScholar platform significantly limits the community's potential activity and accessibility. Because only administrators have the ability to create events, this is a key bottleneck. The user community's ability to contribute to a dynamic and inclusive educational ecosystem is hindered by the exclusive nature of event creation rights, which limits the kind of events that may be organized by them.

2. Analytics Gap:
There is a serious shortcoming in the current system's ability to fully track and present crucial analytics for events. The absence of vital indicators, such as attendance figures, ticket sales, and other relevant information, causes event planners to miss out on important information about how successful their events are. The lack of information available to them makes it more difficult for them to adjust and improve upcoming events in view of user preferences and involvement, which threatens NexScholar's ability to be a useful feedback loop for organizers.

3. Absence of User-Driven Event Booking:
One significant obstacle to user involvement on NexScholar is the inability of users to reserve seats for events. This omission from the event booking process limits total user participation and lessens the sense of connection and engagement for both administrators and users. The lack of an event booking system that is led by users reduces NexScholar's interactive appeal and limits the platform's ability to function as a vibrant center for cooperative learning projects.

4. Lack of Timely Event Notifications:
One major barrier to user engagement on the platform is the lack of proactive user notifications about new events. Users risk missing out on important chances to participate in events if they don't receive timely event notices, which lowers their sense of community involvement. The problem is made worse by this lack of proactive updates, which leaves a noticeable gap between users and the wide range of educational opportunities that NexScholar seeks to offer.

4. Proposed Solutions

Letting users create events is one way to address the issue of exclusivity in the NexScholar platform's event production process. This would enable a more dynamic and inclusive educational ecosystem by raising the community's potential activity and accessibility. Users might be able to submit proposals for events using the site, and administrators would then examine and approve them. This would allow users to share their knowledge and insights and guarantee that events adhere to the platform's objectives and standards. Furthermore, as mentioned in[2], the platform might employ exclusivity as a marketing tactic to advertise events. More attention, ticket sales, and engagement might be generated by the platform by organizing ultra-exclusive events with extra benefits.

Putting in place a thorough analytics system that monitors and displays important event data is one way to address the analytics gap issue on the NexScholar platform. Attendance records, ticket sales, user involvement, and other pertinent data may be included in this system. By using this data, the platform may be able to give event organizers insights about the effectiveness of their previous events and suggest ways to enhance future ones depending on participant involvement and user preferences. The analytics system has the potential to furnish the platform's administrators with input regarding the efficiency of the features and functionality of the platform. As mentioned in[7], the platform might also provide event planners with tools and training on how to utilize the analytics system efficiently. By doing this, the platform's total event quality would be raised and event planners would be guaranteed to possess the information and abilities needed to make data-driven decisions.

Putting in place a user-led event booking system is one way to address the NexScholar platform's lack of user-driven event booking. By enabling users to reserve seats for events, this system may boost user participation overall and improve the feeling of connection and engagement between administrators and users. The platform might make use of a mechanism akin to Salesforce's platform events, which let Salesforce and other sources exchange real-time event data[9][13]. The platform may also make use of a flow-based approach, like the one mentioned in[12], which links Salesforce corporate processes with outside sources through platform events. This would make it possible for users to actively participate in forming the platform's educational ecosystem and allow for a more dynamic and engaging event booking experience. As recommended in[14], the platform might also provide customers with materials and training on how to utilize the event booking system efficiently. This would guarantee that users had the know-how and abilities required to fully utilize the features and functionalities of the platform.

Adding a proactive notification system that informs users of new events is one way to address the NexScholar platform's lack of timely event notifications. Users could be informed of new events as soon as they are created by this system through real-time event data interchange, akin to Salesforce's platform events[15]. In order to make sure that messages are issued practically instantly and are not delayed, the platform might also make use of a rapid event notification system, such the one outlined in [16]. In addition, the platform might make use of in-platform notifications, like to those mentioned in[18], to deliver alerts in real time for significant account occurrences, guaranteeing prompt platform changes at the precise moment when customers require them. Users may be able to set up event notifications on the platform, like to those mentioned in [19], to get reminders about forthcoming events and any modifications. By doing this, users' sense of community involvement and platform engagement would increase as new events are promptly announced to them.

Feasibility study

Technical

The proposed improvements to Nexscholar demonstrate technical feasibility, as there is currently no comparable system available to fulfill the same purpose. Due to the lack of an analogous platform designed exclusively for postgraduate students to facilitate research collaboration, event management, and ticket purchasing, the introduction of Nexscholar does not involve a mere enhancement, but rather the establishment of an entirely novel system. In addition, utilizing the existing human resources and expertise within the academic institution to facilitate the advancement and implementation of this system guarantees convenient access to the necessary professional competencies for its achievement. Therefore, the expected advantages resulting from the implementation of Nexscholar are in line with the goals of the organization, rendering it a technically viable undertaking.

Economical

Estimated cost(RM)	
Hardware	3600
Software	3600
advertisement	1000 per year
salary	4000 per year

Estimated Benefits(RM)	
Saving	165 per week
Event fee	60 per month

Assumption	
Discount rate	15%
Annual Change in production cost	5%
Annual Change in Benefits	15%
Sensitivity Factor Cost	1.1
Sensitivity Factor Benefits	0.91

Cost	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Development cost						
Hardware	4000					
Software	4000					
Total	8000					
Production Cost						
Advertisement		1000	1050	1103	1158	1216
Salary		4000	4200	4410	4631	4863
Total		5000	5250	5513	5789	6079
Annual Production Cost (Present Value)		4348	5134	5494	5786	6079
Accumulated Costs		12348	17482	22976	28762	34841

Benefits	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
saving		7800	8190	8600	9030	9482
Event fee		720	756	794	834	876
Present value		7409	8749	9362	9859	10358
Accumulated Benefits		7409	16158	25520	35379	45737
Gain or loss		(4939)	(1324)	2544	6617	10896
Profitable Index	1.36					

Since thee profitable index = 1.36 , it shows that this project is a good investment because of its index it more than one

Operational

Based on the interview with the stakeholder, they really need the event booking system to ease the workload. Since the stakeholder request for the system, this project will be a long-term project as the system will be used by them because there is no event booking feature available in Nexscholar right now.

5. Objectives

Based on the problem statement,the objectives would be to address and resolve the identified issues with the NexScholar platform. The key problems highlighted include exclusivity in event creation, an analytics gap, the absence of user-driven event booking, and a lack of timely event notifications. Therefore, the overarching goal of the assignment would likely be to enhance the functionality and user experience of the NexScholar platform by implementing solutions to these specific challenges.

1.Create Open Events:

Justification: Permit users who are not administrators to establish events on the site in order to promote a wider variety of educational activities.

Implementation: Provide a user-friendly interface for creating events so that community members can suggest and plan activities. Establish a review procedure to make sure events follow the objectives and policies of the platform.

2.Boost Your Analytics Skills:

Justification: Having thorough analytics available to organizers is essential for assessing an event's performance. By addressing the existing gap in the tracking and presentation of crucial data, this goal will empower event planners to make well-informed decisions for next events.

Implementation: To collect and display important data like attendance rates, ticket sales, participant demographics, and user interaction, incorporate sophisticated analytics tools into the platform. Make sure analytics reports are available to organizers both in real time and after the event.

3.Describe User-Driven Event Scheduling:

Justification: Giving users the option to reserve seats for events gives them command over their learning processes, which strengthens their sense of engagement and connection to the platform.

Implementation: Provide a user-friendly system for booking events so that attendees may make reservations, buy tickets if necessary, and get confirmations. Incorporate functionalities like notifications and reminders to apprise customers of their forthcoming scheduled events.

4.Put in place prompt event notifications:

Justification: Providing users with timely notifications is crucial to their engagement and keeps them updated about impending activities. This goal fills the communication gap that exists now and could cause users to lose out on important learning opportunities.

Implementation: Set up a notification system that promptly informs users of upcoming deadlines, new events, and updates regarding existing events. To efficiently contact consumers, use a variety of communication methods, including email, in-app notifications, and possibly SMS.

5.Enhance Community Development and User Engagement:

Justification: Creating a more lively and interactive learning community on NexScholar is the main goal.

Implementation: In addition to the particular elements listed above, take into account further community-building programs. Discussion boards, cooperative project spaces, and tools that encourage user networking may fall under this category. Promote user-generated content and comments to foster a feeling of community ownership and belonging.

6.Establish a Robust and User-Friendly Ticketing System for NexScholar Events:

Justification: A well-designed ticketing system is essential for streamlining the event organization process, ensuring a smooth experience for both event organizers and participants.The ticketing system will enhance financial transparency, enable effective resource planning, and contribute to a positive user experience.

Implementation: Design a user-friendly interface for creating, purchasing, and managing event tickets and prioritize a clean and intuitive design to enhance the user experience, with a focus on responsiveness for various devices.

6. Scope of the Project

1. Project overview:
    - The project aims to enhance the functionality and overall user experience of the Nexscholar platform to better serve users, especially postgraduate students in research collaboration, event management and ticket booking and purchasing.

2. Objectives:
    - Create and open events feature allowing non-administrators to propose and plan activities.
    - Improve analytics capabilities for event organizers to make informed decisions.
    - Establish prompt event notifications for upcoming events to keep users updated and possible new users.
    - Enhance community development and user engagement through additional features.
    - Implement a robust and user-friendly interface of ticketing systems for Nexscholar events.

3. Key features and functionalities:

   Open event:

   - User-friendly interface for event creation to ease the organizers/administrators.
   - Review process to ensure all events information align with platform policies.

   Analytic improvement:

   - Real-time and post-event analytics report accessible to organizers/administrators to view information about events total participations, ticket sold, new users, etc.

   User-driven event scheduling:

   - User-friendly system to organizers/administrators for booking events.
   - Ticket/seat reservation, purchase and confirmation functionalities.
   - Notifications and reminders to possible participants/users via email for upcoming events.

   Ticketing system:

   - User-friendly interface for creating, purchasing and managing event tickets.
   - Clean and spontaneous design with responsiveness for various devices.

4. Constraints:
   - Adherence to budgetary constraints and resource availability.
   - Integration with existing Nexscholar infrastructure and databases.
   - Consideration of data privacy and security regulations.

5. Stakeholder:
   - Postgraduates students, administrators, event organizers, and platform users.

6. Timeline:
    - The project timeline will be divided into phases, with regular updates and feedback loops.

7. Deliverables:
    - Updates Nexscholar platform with new features and improvements.
    - Documentation on system changes, functionalities and user guides.

8. Future scope:

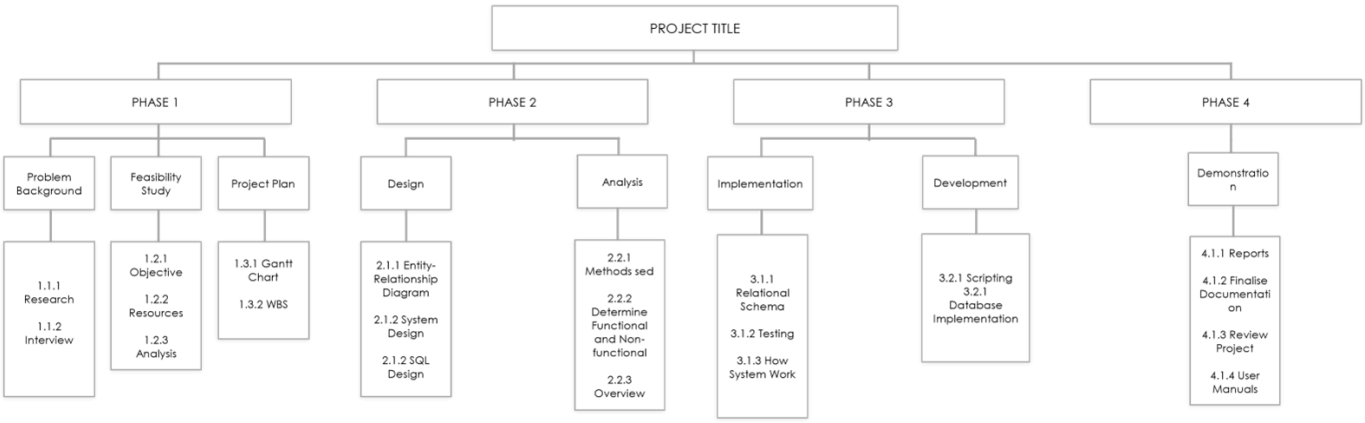
    - Consider scalability for potential future enhancements and new features.
    - Regularly assess user needs and technological advancements for continuous improvement.

7. Project Planning

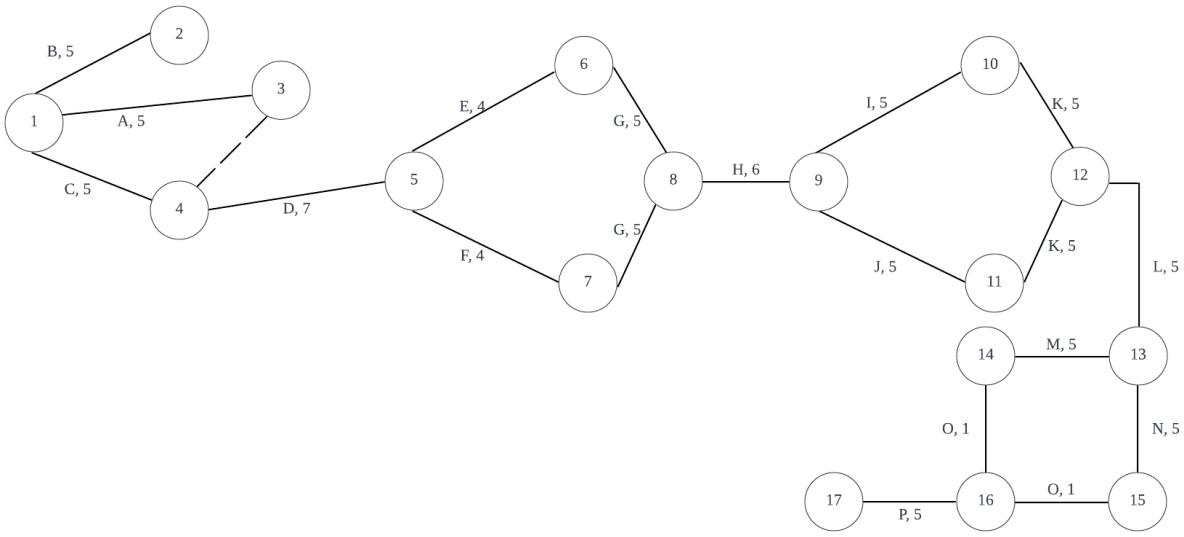
7.1. Human Resources

In this project, we have Dr Muhammad Aliff Ahmad as our project advisor. Our team consists of Muhammad Syakirin as our Project Leader, Muhammad Abduh as and Tengku Muhammad Aiman Aliff as developer. Muhammad Affif Farhan and Luvinesh as our analysts.

7.2. Work Breakdown Structure



7.3. PERT Chart

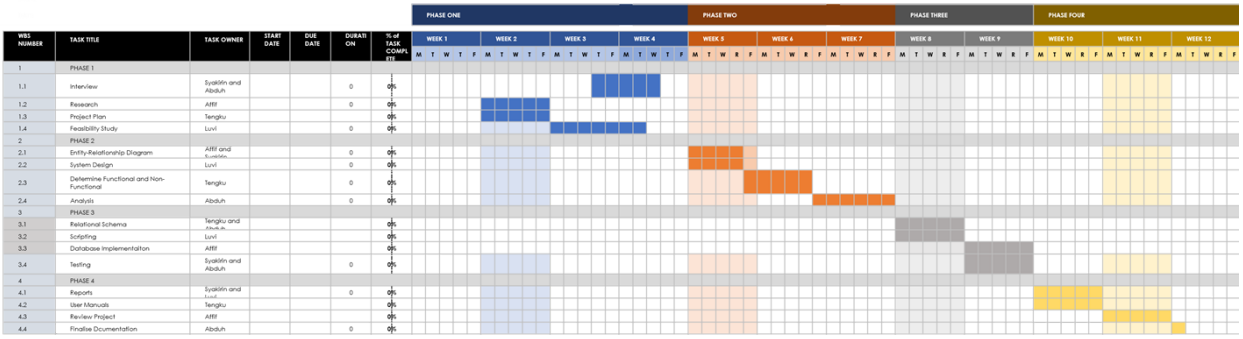


Duration of the project is in days. The possible path for this project is :

1. B Length = 5
2. A-C-E-G-H-I-K-L-M-O-P Length = 53
3. A-C-E-G-H-I-K-L-N-O-P Length = 53
4. A-C-E-G-H-J-K-L-M-O-P Length = 53
5. A-C-E-G-H-J-K-L-N-O-P Length = 53
6. A-C-F-G-H-I-K-L-M-O-P Length = 53
7. A-C-F-G-H-I-K-L-N-O-P Length = 53
8. A-C-F-G-H-J-K-L-M-O-P Length = 53
9. A-C-F-G-H-J-K-L-N-O-P Length = 53

There are many possible path that has the same duration, thus the critical path for this project that we chose is from number 8 which is A - C - F - G - H - J - K - L - M - O - P. The duration for this path is 53 days

7.4. Gantt Chart



WBS NUMBER	TASK TITLE	TASK OWNER	START DATE	DUE DATE	DURATION	% of TASK COMPLETE
1	PHASE 1					
1.1	Interview	Syakirin and Abduh			0	0%
1.2	Research	Afff			0	0%
1.3	Project Plan	Tengku				0%
1.4	Feasibility Study	Luvi			0	0%
2	PHASE 2					
2.1	Entity-RelationshipDiagram	Afff and [illegible]			0	0%
2.2	System Design	Luvi			0	0%
2.3	Determine Functional and Non-Functional	Tengku			0	0%
2.4	Analysis	Abduh			0	0%
3	PHASE 3					
3.1	Relational Schema	Tengku and [illegible]				0%
3.2	Scripting	Luvi				0%
3.3	Database Implementation	Afff				0%
3.4	Testing	Syakirin and Abduh			0	0%
4	PHASE 4					
4.1	Reports	Syakirin and [illegible]			0	0%
4.2	User Manuals	Tengku				0%
4.3	Review Project	Afff				0%
4.4	Finalise Documentation	Abduh			0	0%

Above is our project planning Gantt Chart. We will start with Interview, research followed by feasibility study.

In phase 2, we will begin our design phase that will start with Entity-Relationship Diagram and System Design.

In phase 3, we will implement our design and analyze the system flow. Then we will proceed with documentation and presentation.

8. Benefit and Overall Summary of Proposed System

Enhance user engagement:

- The introduction of open events and user-driven scheduling will improve user engagement. Overall users such as Postgraduate students, event organizers and administrators can actively contribute to a dynamic educational ecosystem, contribute a sense of community and collaboration.

Improved analytic for informed decision-making:

- The implementation of better analytics tools addresses the current gap in the tracking and presenting crucial event data. Event organizers/administrators will now have access to real-time and post-event analytics, better in helping them to make data-driven decisions for future upcoming events.

Simplify event booking process:

- The new user-friendly event booking system, paired with prompt notifications, resulting in a better experience for participants. Reserving seats, purchasing tickets, and receiving event updates become efficient, it will reduce the burden on users and improve overall platform usability and be easier to navigate.

Financial transparency and resource planning:

- The addition of a robust ticketing system enhances financial transparency for both event organizers and participants. Effective resource planning has become possible.

Technical feasibility and innovation:

- The proposed improvements demonstrate technical feasibility, manipulating existing human resources and expertise within the academic institution. Nexscholar stands out as a novel system designed exclusively for postgraduate students, offering innovative solutions to address specific needs.

In summary, the proposed system represents a significant improvement for Nexscholar, aligning with the goals of providing a comprehensive platform. The platform aims to become a central hub for research collaboration, event management, and communication development. The feasibility study confirms the technical viability of the project, utilizing existing resources efficiently. As the project progresses, regular evaluations and user feedback will be key to fine-tuning and making the system even better.