

## **COS 101 – Project Management**

Group Number : Group - 6



## **Group - 6 Members**



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# **Overview**

## **Author - Team**

What makes a tuition center run efficiently as it grows? For Mr. Lim's expanding center, an advanced management system is the key to optimizing scheduling, reporting, and overall operations. A Weighted Scoring Model was used to evaluate various options, ultimately selecting the most suitable system based on its strong scheduling, reporting, and customization capabilities. This system will automate timetable management, enhance student and tutor tracking, and simplify financial processes while seamlessly integrating with other essential tools. Additionally, its advanced reporting and analytics will provide valuable decision-making and performance-monitoring insights. The implementation process includes careful planning, system installation, thorough testing, staff training, and full deployment, with ongoing support to ensure smooth adoption. By adopting this system, the tuition center will achieve greater efficiency, improved organization, and scalable operations, enabling future growth and enhancing the learning experience for students.

# **Task 1**

## **Author - Team**

## **1.1 Evaluation of TutorCruncher and Teachworks**

Both TutorCruncher and Teachworks provide all-in-one solutions to make school administration easier, helping manage student and tutor records, scheduling, and payments in a way that saves time and effort.

### **1.1.1 TutorCruncher**

TutorCruncher is the cloud-based tutoring management system established in 2013 by TutorCruncher Ltd., The platform was developed by Edward Webster and Malachy Guinness (Crunchbase, 2025b). The software is designed for tutoring firms of all sizes, it offers a range of features such as scheduling, student progress monitoring, attendance management, invoicing, payroll, Relationship Management (CRM), and reporting (TutorCruncher, 2024a).



TutorCruncher integrates with accounting programs such as Xero and QuickBooks and supports multi-branch management to ensure smooth financial administration (Capterra, 2025).

TutorCruncher provides a 14-day free trial, with various pricing plans ranging from the base plan which charges \$32 per month (TutorCruncher, 2024a).

However, its pricing is higher than competitors, and setting up advanced integrations may require some technical knowledge, making it more suitable for larger tuition centers looking for detailed business insights.

TutorCruncher's customers include A&J Education, Kumon, Mathnasium, and Denver Test Prep, which offers tutoring services to improve students' academic performance (TutorCruncher, 2024a). These organizations have expressed satisfaction with the software. In 2024, TutorCruncher processed over £190 million in payments and connected over 210,000 tutors (Allcock, 2025).

Users can access TutorCruncher from anywhere with an internet connection, eliminating the need for local installations since it is hosted on the cloud. The software offers extensive customization options, allowing institutions to adapt it to their needs by efficiently managing administrative tasks, TutorCruncher contributes significantly to the growth of these organizations (TutorCruncher, 2024a).



### **1.1.2 Teachworks**

Teachwork, developed by TeachWorks Inc., in 2014, is a web-based business management software based in Kitchener, Ontario (Crunchbase, 2025a). It is a cloud-based tutoring management tool intended to assist educational institutions, including tutoring centers, music schools, language schools, test preparation centers, and driving schools in streamlining their administrative processes (Teachworks, 2024).

Teachworks offers a user-friendly and self-serve option for managing schedules, and paying invoices anytime that enhances the customer experience. Users can access calendars, request lessons, join courses, tutor assignments, student bookings, a module tracks reports, student progress, and financial transactions (Capterra, 2025). Teachworks offers a free 21-day trial with full access to all features, and its pricing plans start at \$16 per month. However, some advanced features require premium subscriptions (Teachworks, 2024).

It can support multiple branches, ensuring smooth coordination across different locations. The software features dedicated portals for students and parents, which promote better communication and transparency. TeachWorks is utilized by various educational organizations, including Sylvan Learning and Club Z! Tutoring.

Teachworks provides training materials for new beginner customers, such as manuals, webinars, and live online sessions. This flexibility and focus on user experience make TeachWorks a strong contender (Crunchbase, 2025a).



## **Task 2**

### **Author - Team**

This task involves selecting business factors and utilizing a weighted scoring model to assess options fairly. The execution of the model ensures a structured decision-making process based on defined criteria.

<b>Main Factor</b>		<b>Teachworks</b>	<b>TutorCruncher</b>
<b>Usability</b>	Ease of Use	It is simple and easy to use, making it suitable for beginners. Allows users to locate features and settings through clear navigation menus faster.	
	User-Friendly	Information and articles are well-organized, making them convenient to search and easily accessible for users.	
	Graphical	Display an intricate comparison of features.	Offer more visual data with charts and graphs for better analysis.
<b>Functionality &amp; Features</b>	Scheduling	<ul style="list-style-type: none"><li>➤ Provide lesson scheduling for students,</li><li>➤ Assign tutors to specific sessions,</li><li>➤ Track the tutor's availability</li><li>➤ Supports recurring lessons for students,</li><li>➤ Sends automated notifications.</li></ul>	<ul style="list-style-type: none"><li>➤ Allow session scheduling by assigning tutors and students to specific time slots,</li><li>➤ Manage tutor availability,</li><li>➤ Prevent scheduling conflicts by checking tutor</li></ul>



Main Factor		Teachworks	TutorCruncher
			availability and session timings, ➤ Send automated reminders.
	Customization Options	Limited options for customization; best for standard setups.	Highly customizable, allowing businesses to modify settings as needed.
	Integration with Other Tools	➤ <b>Scheduling &amp; Communication:</b> Google Calendar, Outlook Calendar, MailChimp ➤ <b>Online Teaching:</b> Zoom, Lessonspace ➤ <b>Automation &amp; CRM:</b> Zapier (connects with thousands of apps)	➤ <b>Scheduling &amp; Communication:</b> Google Calendar, Outlook Calendar, MailChimp, Twilio (SMS reminders) ➤ <b>Online Teaching:</b> Zoom, Lessonspace ➤ <b>Automation &amp; CRM:</b> Zapier, API for custom integrations





Main Factor		Teachworks	TutorCruncher
	Reporting & Analytics	Basic reports on student progress and business performance.	Advanced real-time reports for making better business decisions.
Tracking	Attendance	<ul style="list-style-type: none"> <li>➤ Automated attendance logging,</li> <li>➤ Tutors can mark students as present or absent,</li> <li>➤ Attendance reports are available.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Automated attendance logging,</li> <li>➤ Tutors can mark students as attending or not attending,</li> <li>➤ Attendance is included in lesson reports.</li> </ul>
	Progress	<ul style="list-style-type: none"> <li>➤ Monitors lesson progress,</li> <li>➤ Enables tutors to add notes on student development</li> <li>➤ Produces detailed reports on attendance, lesson completion, and other aspects with</li> </ul>	<ul style="list-style-type: none"> <li>➤ Provides student progress reports,</li> <li>➤ Flexible progress metrics,</li> <li>➤ Visual tracking (graphs/charts) to track student development.</li> </ul>



Main Factor		Teachworks	TutorCruncher
		visual tracking (graphs/charts).	
	Expense	<ul style="list-style-type: none"><li>➤ Track expenses like tutor payments, administrative fees, and other costs</li><li>➤ Generates financial reports.</li></ul>	<ul style="list-style-type: none"><li>➤ Allows tracking and categorizing expenses, including tutor pay, office supplies, and other operational costs</li><li>➤ Generates reports for financial analysis.</li></ul>
<b>Management</b>	Financial Management	Offers automatic invoicing, payment tracking, expense tracking, financial reports, payroll management, and billing with secure payment processing.	Provides invoicing, payment tracking, expense tracking, financial reports, and advanced financial features, including integration with accounting software like Xero and QuickBooks.



Main Factor		Teachworks	TutorCruncher
	User Management	<ul style="list-style-type: none"><li>➤ Role-based access such as tutors, students, and administrators,</li><li>➤ Customizable user profiles,</li><li>➤ Permission controls for system features like lesson management, financial data, etc.</li></ul>	
	Resource Management	Efficient management of human resources (tutors and performance monitoring), physical resources (well-organized scheduling of classrooms and equipment), time (carefully arranged schedules for both tutors and students), and financial resources (tracking budgets, income, and expenses for financial efficiency).	
	Operational Management	Supports multiple branches, keeping everything organized.	Manages multiple branches with detailed tracking and reports.
<b>Integration</b>	Payment Integration	Support payment gateways like Stripe.	Offers multiple payment options, including Stripe, GoCardless, and direct invoicing.
<b>Support</b>	Platform	Web-based (works on Windows, Mac, Android, and iOS via browser). No dedicated mobile app.	Web-based (Windows, Mac, Android, iOS). No official mobile app, but a mobile-friendly interface.



Main Factor		Teachworks	TutorCruncher
	Customer Support	Email support with a response time of 24 hours, help docs, video guides, and a community forum.	24/7 live chat support, email support, knowledge base, and video tutorials.
	Training	<ul style="list-style-type: none"><li>➤ Webinars</li><li>➤ Documentation</li><li>➤ Video</li></ul>	<ul style="list-style-type: none"><li>➤ In Person</li><li>➤ Live Online</li><li>➤ Webinars</li><li>➤ Documentation</li><li>➤ Video</li></ul>
<b>Security &amp; Compliance</b>	Security Features	Provide flexible access controls, encrypted passwords, multi-factor authentication, and back-up (database, point in time)	Provide flexible access controls, encrypted passwords, multi-factor authentication, and secure server infrastructure
<b>Cost &amp; Pricing</b>	Cost & Pricing Model	More budget-friendly, with a free plan and different payment options.	More pricey but includes a wider range of high-end features.
		(Teachworks, 2024)	(TutorCruncher, 2024a)

**Table 1: Business-related *Factors* and *Criteria* Table**



## Task 3

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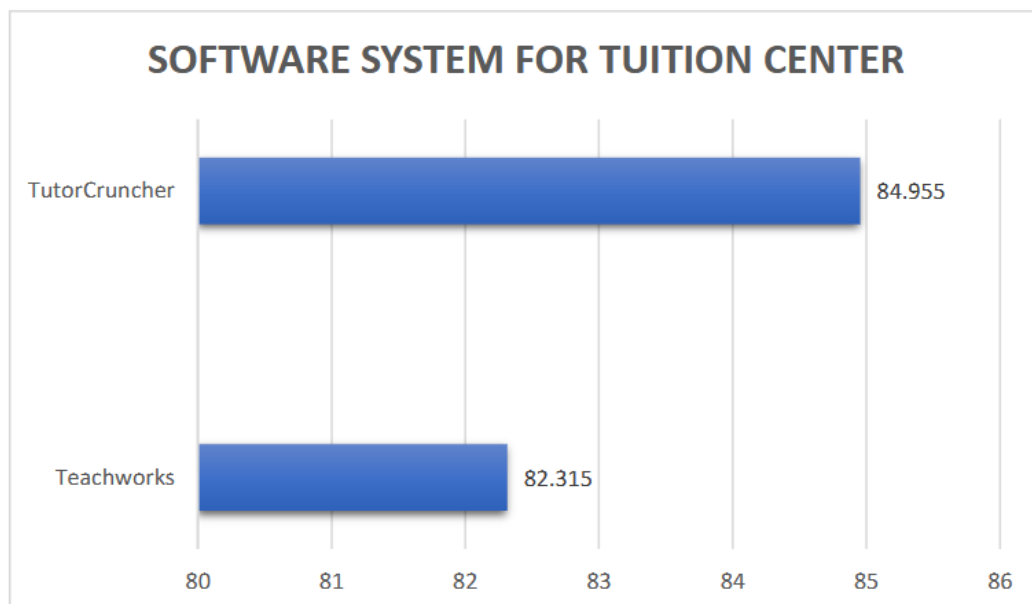
**Team**

The weighted scoring model in Figure 1 presents the factors and criteria carefully devised to evaluate the software.

The figure evaluates two software solutions, Teachworks and TutorCruncher, based on various criteria that are essential for managing an educational institution. Each criterion is assigned a specific weightage (%), reflecting its importance in decision-making.

1	Criteria	Weightage (100%)	Teachworks		TutorCruncher	
2			Score(100%)	Total Score	Score(100%)	Total Score
3	Ease of Use	5%	90	4.5	80	4
4	User-Friendly	5%	85	4.25	80	4
5	Graphical	3%	90	2.7	70	2.1
6	Scheduling	8%	78	6.24	89	7.12
7	Customization Options	3%	75	2.25	95	2.85
8	Integration with Other Tools	4%	83	3.32	90	3.6
9	Reporting & Analytics	8%	77	6.16	89	7.12
10	Attendance	3.50%	82	2.87	82	2.87
11	Progress	3.50%	80	2.8	90	3.15
12	Expense	3.50%	85	2.975	91	3.185
13	Financial Management	5%	83.5	4.175	87	4.35
14	User Management	5%	80	4	85	4.25
15	Resource Management	5%	84	4.2	89	4.45
16	Operational Management	5%	80	4	80	4
17	Payment Integration	8%	78	6.24	86	6.88
18	Platform	3%	79	2.37	79	2.37
19	Customer Support	3.50%	87	3.045	88	3.08
20	Training	5%	82	4.1	82	4.1
21	Security Features	10%	84	8.4	84	8.4
22	Cost & Pricing Model	4%	93	3.72	77	3.08
23	Weighted Software Score	100%		82.315		84.955

**Figure 1: Weighted Scoring Model for Mr. Lim's Tuition Center**



**Figure 2: Chart for Weighted Scoring Model**



## **Task 4**

### **Author - Team**

To assist Mr. Lim in selecting the most suitable software for the tuition center, a Weighted Scoring Model was used to compare Teachworks and TutorCruncher based on various important criteria. In the evaluation, TutorCruncher received a higher score of 84.955, while Teachworks scored 82.315. Teachworks may be the preferred solution for smaller businesses or those with limited technical expertise. Since TutorCruncher has a higher overall score, it is the better option to meet the tuition center's needs.

TutorCruncher is the ideal software for Mr. Lim's expanding tuition center due to its powerful features that support growth and operational efficiency. The software's most notable advantages include scheduling features, resource, and user management. TutorCruncher's scheduling feature provides a more efficient system for organizations managing multiple appointments. Other functions are to manage students, tutors, and resource schedules. Ensuring to avoid conflicts, and maximize class availability easily. It also handles progress tracking by providing clear reports on student performance, so tutors can quickly identify areas that need help.

Additionally, TutorCruncher offers better reporting and analytics features, which allows Mr. Lim to track students' progress, tutor performance, and financial details more effectively and in more detail. These features are paramount for an expanding tuition center that needs accurate data to operate smoothly and improve service quality. Another key advantage of TutorCruncher is its strong integration with other tools, making it easier to connect with third-party applications and enhancing overall system efficiency. Moreover, the software offers better customization options, so Mr. Lim can adjust the system to meet the tuition center's specific needs. The total overall score of criteria from each software achieved represents the total weighted score.

Moreover, TutorCruncher provides advanced expense tracking, payment integration, and financial management features. It simplifies payment processing by supporting various payment methods like credit cards and online payments, as well as providing invoicing, and budget tracking, which are critical for an expanding business. With these advantages, TutorCruncher not only makes daily tasks easier but also offers the flexibility and scalability



necessary to support Mr. Lim's tuition center's future growth. TutorCruncher enjoys particular advantages and some qualitative aspects, which could not be measured such as the vendor's reputation or customer satisfaction.



## **Task 5**

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**Team**

This task focuses on identifying key stakeholders, analyzing their interests, and assessing their influence on the project. Understanding stakeholder needs helps ensure effective communication and decision-making.

<b>Stakeholder</b>	<b>Company</b>	<b>Role on the Project</b>	<b>Facts about the shareholder</b>	<b>Level of interest</b>	<b>Level of influence</b>	<b>Remarks</b>
<b>Mr. Lim (Business Owner)</b>	Tuition Center	Business Owner	Decision-maker, the project sponsor, defines requirements and approves the budget.	High	High	Key decision-maker. Final authority on business matters.
<b>Project Manager</b>	BUC	Project Manager	Oversees project execution, manages resources, and ensures timely deployment.	High	High	Ensure the Project stay on track
<b>Teachers</b>	Tuition Center	Instruction and Support	End-users who schedule classes, track attendance and provide feedback.	Medium	Medium	Influence curriculum implementation, need proper tools, training, and scheduling
<b>Students</b>	Tuition Center	Recipients of Tutoring	End-users who enroll in classes, check timetables and track progress.	Low	Medium	Have easy access to class schedules, progress reports, and personalized learning paths





Stakeholder	Company	Role on the Project	Facts about the shareholder	Level of interest	Level of influence	Remarks
<b>Parents</b>	Tuition Center	Support & Feedback	Monitors student progress, attendance, and payment details.	Medium	Medium	Parents will be able to monitor their children's academic progress and stay updated on any changes.
<b>Staff</b>	Tuition Center	Users of the System	Use the system for administrative tasks and tracking, etc.	Medium	Medium	Their feedback is essential for user experience improvements and they must be trained on the system.
<b>Network Engineer</b>	BUC	IT Infrastructure	Ensures system connectivity and security across all branches.	High	High	Responsible for Connectivity
<b>Hardware Engineer</b>	BUC	Hardware Maintenance	Installs and maintains hardware required for system operation.	High	Medium	Ensures smooth hardware functionality.



Stakeholder	Company	Role on the Project	Facts about the shareholder	Level of interest	Level of influence	Remarks
<b>Hardware supplier</b>	Lenovo	Provides Hardware	Provides necessary hardware components for the system.	Low	Medium	Ensure timely hardware availability.
<b>IT Support Team</b>	BUC	Technical Assistance	Provides ongoing technical support and system troubleshooting.	Low	Medium	Provides quick resolution for technical problems.
<b>Software Vendors</b>	TutorCrunder	Supplier of the Software System	<ul style="list-style-type: none"><li>- Provides the software system.</li><li>- Develops and customizes the system based on requirements.</li></ul>	High	High	An important role in developing and launching the software system.
<b>Software Team</b>	BUC	Research, analyze and support software system	<ul style="list-style-type: none"><li>- Research and analyze the software.</li><li>- Responsible for ensuring to meet all requirements.</li></ul>	High	High	Ensure the system meets all requirements and is functional.
<b>Software Tester</b>	BUC	Software Quality Assurance	Tests system functionality, usability, and performance before deployment.	High	High	Detects and fixes software bugs.



Stakeholder	Company	Role on the Project	Facts about the shareholder	Level of interest	Level of influence	Remarks
<b>Finance Department</b>	BUC	Financial Management	Manages project budget and ensures smooth financial transactions.	Medium	Low	Monitor Project Cost
<b>Customer Support</b>	Tuition Center	Handles Inquiries	Assists students, parents, and tutors in using the system.	Low	Low	Feedback can inform improvements
<b>Trainer</b>	BUC	Train users on the software system	Conducts training sessions for staff and users on system usage.	High	High	Ensures smooth adoption of new technology

**Table 2: Stakeholder Analysis Table**



## **Task 6**

**Author - Team**

### **6.1 Project Overview**

#### **6.1.1 Purpose, Scope, and Objectives**

##### **Purpose**

The purpose of this project is to implement TutorCruncher for a teaching system without existing IT infrastructure and comprises evaluating, recommending, and installing a suitable software system for Mr. Lim's tuition center. With the increasing number of students, tutors, and resources, it has become increasingly difficult to manually organize classes. The proposed system will ease scheduling so that the allocation of classrooms, tutors, and students will be done more easily. The solution will include software integration and hardware installation to support the operations of the center.

##### **Scope**

The scope of this project is outlined as follows:



Scope Element	Description
<b>Researching and Analyzing Software System</b>	The project involves analyzing the tuition center's needs to select the most suitable scheduling and reporting system. This includes researching to evaluate software options by selecting the best one.
<b>Customization</b>	Fulfilling customer requirements through software research and selection.
<b>Software Installation</b>	Purchase and install necessary software for the operations of the system.
<b>Hardware Implementation</b>	It will involve purchasing and installing hardware necessary to support the operations of the system.
<b>Testing</b>	Both software and hardware will be conducted to ensure proper functionality. Software testing will check for bugs, performance, and compatibility, while hardware testing will verify installation and integration.
<b>User Training</b>	Proper training will be provided to tutors, administrators, and other users to ensure they can effectively navigate and utilize the system.

**Table 3: Scope Table**



## **Objective**

The objective is to deploy a functional system within five months, ensuring it meets client expectations.

- **Quality Education** - Provide well-structured tutoring programs with qualified teachers to enhance student learning outcomes.
- **Student & Tutor Management** - To effectively handle tutor scheduling, performance monitoring, student enrollment, and attendance.
- **Course Development** - Create and provide specialized course bundles with well-organized lesson plans and affordable prices.
- **Operational Efficiency** - To improve center operations, set up digital tools, administrative procedures, and well-equipped classrooms.
- **Financial Sustainability** - For long-term success, make sure that financial planning, tuition fee management, and adherence to educational regulations are all done correctly.
- **Effective Reporting** - To produce useful reports for student attendance, payment, and the whole progress.

The project will also include conducting training sessions for tutors and administrative staff to familiarize them with the system. At the end of the five months, the tuition center will have a fully functional, integrated system to enhance its management processes.



## **6.1.2 Assumptions and Constraints**

### **Assumptions**

The project assumes that the tuition center needs a system to help with scheduling and reports, with enough budget and resources to set it up. The tuition center has no current IT infrastructure, and therefore all hardware and software necessary must be acquired and installed. Moreover, the selected software and hardware must be suitable for both current and future expansion without overcosting. The system meets quality standards, ensuring usability, security, and performance while addressing key customer needs.

### **Constraint**

The project has several constraints. The timeframe for implementation is five months, requiring efficient planning and realization. A reasonable budget will be used on software, hardware, and staffing. Only essential installation resources are needed, and a software tester will be hired instead of more developers. Delayed feedback from Mr. Lim or other stakeholders could cause delays. The tuition center's limited IT knowledge could make training more difficult and cause delays in adopting the system. Additionally, the technology chosen should be scalable, stable, and user-friendly while being compatible with external interfaces, e.g., reporting tools.



### **6.1.3 Project Deliverables**

This section outlines the key project deliverables for the tuition center system. These deliverables ensure that the system meets the specified requirements and is successfully implemented for efficient scheduling, reporting, and overall management.

<b>Deliverables Items</b>		
<b>Software</b>	Functional TutorCruncher System	
<b>Hardware</b>	20-25 Laptops 20-25 Mouses	- For Administrative tasks - To run the system - For Class Management
<b>Network</b>	1 Router 1 Access Point	- To set up the internet connection
<b>Estimated Date</b>	11.7.2025	
<b>Location</b>	Mr.Lim's Tuition Center	
<b>Quality</b>	TutorCruncher System Implementation <ul style="list-style-type: none"><li>● Enhances operational efficiency.</li><li>● Secure hardware deployment.</li><li>● High-speed network.</li><li>● User-friendly mobile application.</li></ul>	
<b>Software Installation</b>	<ul style="list-style-type: none"><li>● Deliver the software as a ZIP file, installer, or executable file.</li><li>● Share via secure cloud storage (Google Drive, OneDrive, Dropbox) or physical storage (USB drive, external hard disk).</li><li>● Include a detailed installation guide to help with the setup process.</li></ul>	

**Table 4: Deliverables Items Table**





### **6.1.4 Schedule and Budget Summary**

The project timeline and budget are planned for timely completion within available funds. The following is the timeline and budget plan:

<b>Deliverable</b>	<b>Schedule (DAY)</b>		<b>Budget</b>	
<b>Requirement Gathering</b>	14		\$ 100.00	
<b>Analyzing Software Features &amp; Compatibility</b>	10		\$ 80.00	
<b>Searching Software System + Software Testing</b>	9		\$ 560.00	
<b>Negotiating with Software Suppliers</b>	5		\$ 20.00	
<b>Buying Software</b>	4		\$ 960.00	
<b>Searching &amp; Analyzing Hardware</b>	7		\$ 50.00	
<b>Negotiating with Hardware Suppliers</b>	5		\$ 20.00	
<b>Buying Hardware</b>	7		\$ 18,470.00	
<b>Network + Hardware Installation</b>	17		\$ 430.00	
<b>Software Installation</b>	8		\$ 200.00	
<b>Overall Testing</b>	14		\$ 300.00	
<b>Documentation and Manuals</b>	7		\$ 200.00	
<b>User Training</b>	14		\$ 900.00	
<b>Total Project Budget</b>	<b>Total Duration (DAYS):</b>	<b>121</b>	<b>Total Cost:</b>	<b>\$ 22,290.00</b>
	<b>Total Duration (WEEKS):</b>	<b>17.29</b>		

**Table 5: Schedule and Budget Summary Table**



This systematic approach assures the tuition center that it can effectively implement the new system with proper cost management and deadline control.

## **6.2 Project Organization**

### **6.2.1 External Interfaces**

- 1) Mr. Lim (Owner of Tuition Center)
- 2) Teachers
- 3) Students
- 4) Parents
- 5) Hardware Supplier
- 6) Software Vendor

### **6.2.2 Internal Interfaces**

- 1) Project Manager
- 2) Network Engineer
- 3) Hardware Engineer
- 4) IT Support Team
- 5) Software Team
- 6) Software Tester
- 7) Finance Department
- 8) Customer Support
- 9) Trainer



### **6.2.3 Roles and Responsibilities**

#### **1) Mr. Lim (Owner of Tuition Center)**

- Manages the implementation of the system.
- Defines business requirements for the system.
- Approves budgets and oversees system implementation.
- Make sure to meet the tuition center's goals and operations.
- Makes important decisions on software and branch expansion.

#### **2) Project Manager**

- Manages the project lifecycle, from planning to deployment.
- Facilitates team collaboration in software, IT, hardware, finance, and other areas.
- Oversees budgeting, scheduling, and resource allocation.
- Assures effective integration and deployment of the system.
- Reports progress and potential issues to Mr. Lim.

#### **3) Teachers**

- Manage classes, assign work, and interact with students through the system
- Update student progress and performance in the system.
- Interact with parents and students using the system.

#### **4) Students**

- View class schedules, learning materials, their progress, and attendance.
- Use the system to interact with tutors and to receive notifications.
- Use the system for learning and attending online classes.

#### **5) Parents**

- Views their child's attendance, performance, and tuition fees.
- Receives reports for payments and class updates.
- Interacts with the tuition center's staff and teachers.



**6) Network Engineer**

- Design and set up the network infrastructure for the system.
- Ensure internet connectivity and security for all branches.
- Fixed problems relating to the network.
- Maintains seamless connectivity for users.

**7) Hardware Engineer**

- Install and maintain essential hardware, such as servers, computers, network devices, and storage devices for the system.
- Ensure that all the main functions operate smoothly.
- Work with the IT support team to handle hardware failures and upgrades.

**8) Hardware Supplier**

- Provide the necessary hardware like computers, servers, and network devices.
- Deliver and install hardware on time.
- Provide warranties and support for purchased hardware.
- Provides necessary physical infrastructure for the system.

**9) IT Support Team**

- Provide technical support to users, including staff, teachers, students, and parents.
- Resolve software and hardware problems.
- Ensure the system is up-to-date and secure.

**10) Software Vendor**

- Provide software to the tuition center.
- Offer system customization and support services.
- Provide documentation, licensing, and regular updates.
- Help with system integration and future expansion.

**11) Software Team**

- Research and evaluate existing software solutions that match Mr. Lim's requirements.
- Analyze different software according to their features, scalability, security, and cost.



- Ensure the selected system supports scheduling, attendance tracking, reporting, and resource management.
- Check if the system works well with the tuition center.
- Work closely with Mr. Lim and the project manager to choose the system.
- Collaborate with the software vendor for customization, setup, and support.
- Work together with testers to fix bugs.

#### **12) Software Tester**

- Test the system before deployment.
- Find bugs, performance issues, and security risks.
- Ensure the system meets all requirements.
- Report issues and suggestions to the software team for improvements.

#### **13) Finance Department**

- Evaluate software costs, including licensing and additional fees.
- Work with the project manager to ensure the software stays within the budget.
- Review the long-term cost and benefit of the software.
- Ensure setup costs stay within the approved budget.
- Monitor implementation costs and report to stakeholders regularly.

#### **14) Customer Support**

- Guide parents and students in using the system.
- Manage customer inquiries, and complaints, and report problems to the IT and software teams.

#### **15) Trainer**

- Train tutors, staff, and parents to use the system effectively.
- Develop user guides and training materials.
- Provide workshops and individual training sessions.

#### **16) Staff**

- Use the system for administrative tasks such as student, tutor, and resource management
- Help with scheduling and managing tuition classes



## **6.3 Managerial Process Plans**

### **6.3.1 Start-up Plan**

#### **6.3.1.1 Estimates**

In this section, we provide estimates for both the cost and time required for the project. These estimates help in planning resources efficiently, ensuring that the project stays within budget and is completed on schedule. The cost estimate includes expenses related to software, hardware, and operational needs, while the time estimate outlines the expected duration for each project phase.

<b>Deliverable</b>	<b>Schedule (DAY)</b>	<b>Budget</b>	<b>Remark</b>	<b>Headcount</b>
<b>Requirement Gathering</b>	14	\$100.00		1
<b>Analyzing Software Features &amp; Compatibility</b>	10	\$80.00		
<b>Searching Software System + Software Testing</b>	9	\$560.00		2
<b>Negotiating with Software Suppliers</b>	5	\$20.00		
<b>Buying Software</b>	4	\$960.00	\$80 (Per Month)	
<b>Searching &amp; Analyzing Hardware</b>	7	\$50.00		1



Deliverable	Schedule (DAY)		Budget		Remark	Headcount
Negotiating with Hardware Suppliers	5		\$20.00			
Buying Hardware	7		\$18,470.00			
Network + Hardware Installation	17		\$430.00		6 months Wifi fees + Installation fees + Access Point + Cables	1
Software Installation	8		\$200.00			2
Overall Testing	14		\$300.00			3
Documentation and Manuals	7		\$200.00			1
User Training	14		\$900.00		\$30(Per hour) * 3hr( Per Day)	1
Total Project Budget	Total Duration (DAYS):	121	Total Cost:	\$22,290.00		12
	Total Duration (WEEKS):	17.29				

**Table 6: Estimate Cost and Time Table**



### **Cost Estimate**

This project's estimated total cost is \$22,290. This cost will cover all procedures and activities expenses from initial requirement gathering and software/hardware analysis to the final user training phase. The budget includes software purchase (TutorCruncher, 2024) and testing, hardware procurement, installation charges, testing, documentation, and training initiatives. This is the most accurate cost estimate available for all project deliveries. Unexpected events, however, could occur and affect the ultimate expenses. If there are notable variations, the budget will be reassessed, and the modifications in harmony with a project goal and the available funds.

### **Time Estimate**

The total duration of this project is 121 days without weekends, or roughly 17.29 weeks (assuming a 5-day week). This estimate covers all project phases, from requirement gathering to user training. Time for deliverables is set adequately in the timetable to allow optimum efficiency during project execution. It needs to be acknowledged that unforeseen events may interfere with the timeline. In such cases, the schedule will be reviewed and adjusted to accommodate the changes so the project stays on track toward successful completion within a reasonable timeframe.



**6.3.1.2 Resource Acquisition**

Category	Name	Model / Brand	Quantity	Per Price	Total Price
Hardware	Laptop	Lenovo ThinkPad E14 Gen 6 (Lenovo, 2021)	* 25	\$720.00	\$18,000.00
	Mouse	Logitech M185 Wireless Mouse (Amazon, 1996)	* 25	\$7.58	\$190.00
	Printer	HP OfficeJet Pro 9125e (Amazon, 1996)	* 1	\$280.00	\$280.00
Software	Tuition Center Management Software	TutorCruncher (TutorCruncher, 2024)	12 Months	\$80.00	\$960.00
Networking	Internet Network	5BB (5BB Broadband, 2025)	6 Months	\$40.00	\$240.00
	Router	5BB (5BB Broadband, 2025)	* 1	\$10.00	\$10.00
	Access Point	Ubiquiti YniFi nano HD Compact 802.11c (Amazon, 1996)	* 1	\$80.00	\$80.00
	Cable	Cat6 Network Cable (Alibaba, 1999)	* 3	\$18.00	\$54.00
All Categories					\$19,814.00

**Table 7: Resource Acquisition Plan**



The tuition center strategically acquired essential hardware, software, and networking resources to ensure efficient operations, totaling \$19,814.00. Hardware includes 25 Lenovo ThinkPad E14 Gen 6 laptops, 25 Logitech M185 wireless mice, and an HP OfficeJet Pro 9125e printer. High-quality hardware was sourced from a trusted local electronics store for \$18,470.00, guaranteeing reliability and support. Software requirements are met with a 12-month subscription to TutorCruncher tuition center management software. Networking is supported by a 6-month internet network subscription, a 5BB router, a Ubiquiti YniFi nano HD Compact 802.11c access point for local WiFi, and Cat6 network cables. Networking essentials were carefully selected from Alibaba and Amazon for \$384.00, balancing cost and performance. With a total resource investment of \$19,814.00, the tuition center is well-equipped for seamless functionality and productivity.

#### **6.3.1.3 Staff Acquisition**

To ensure the successful execution of the tuition center software system, we have identified the required personnel based on skill level, project phase, and duration of involvement.

- **Project Manager:** Assigns 1 internal transfer project manager for requirement gathering and purchasing software and hardware.
- **Software Team:** Involves 2 employees on internal transfer to analyze, research, test, and negotiate with TutorCruncher for the software system.
- **Hardware Engineer:** Involves 1 internal transferred employee for searching suitable hardware, analyzing, and negotiating with the supplier.
- **Network Engineer:** Assigns 1 employee for network design and deployment.
- **IT Support Team:** Assigns 2 internal transfer IT team members for technical assistance and troubleshooting.
- **Trainer:** Assigns 1 contracted trainer to provide training for end-users on the system.
- **Tester:** Assigns 2 testers(1 for software and 1 for hardware) and contracts 1 network engineer to test the system and ensure its overall quality.



The following table outlines the roles and responsibilities of each team member involved in the project.

<b>Project Team</b>	<b>RA</b>	<b>SI</b>	<b>HI</b>	<b>NI</b>	<b>TE</b>	<b>TR</b>	<b>MS</b>
<b>Project Manager</b>	<b>R</b>						<b>R</b>
<b>Software Team</b>	<b>P</b>	<b>R P</b>					
<b>Hardware Engineer</b>			<b>R P</b>	<b>P</b>			
<b>Network Engineer</b>				<b>R P</b>			
<b>IT Support Team</b>							<b>P</b>
<b>Trainer</b>						<b>R P</b>	
<b>Tester</b>					<b>R P</b>		

**Table 8: Staff Acquisition Table**

**R** → Responsible Organizational Unit

**P** → Performing Organisational Unit

**RA** = Requirement analysis

**SI** = Software Implementation

**HI** = Hardware implementation

**NI** = Network installation

**TE** = Testing

**TR** = Training

**MS** = Maintenance & Support



## **6.3.2 Work Plan**

### **6.3.2.1 Work Breakdown Structure**

#### **1. Project Initiation**

##### **1.1. Requirement Analysis**

- 1.1.1. Interview Mr. Lim to gather requirements
- 1.1.2. Identify system users (students, tutors, admin)
- 1.1.3. Define key functionalities (scheduling, reporting, etc.)
- 1.1.4. Identify budget and timeline

##### **1.2. Project Planning**

- 1.2.1. Define project scope
- 1.2.2. Identify stakeholders (Mr. Lim, tutors, staff)
- 1.2.3. Allocate project team roles
- 1.2.4. Develop project schedule

#### **2. Software Evaluation and Selection**

##### **2.1. Research Software Solutions**

- 2.1.1. Identify available software options (off-the-shelf or custom-built)
- 2.1.2. Compare pricing, features, and support
- 2.1.3. Conduct Software Trials and Evaluate Performance

##### **2.2. Software Testing**

- 2.2.1. Research available tutorials and resources for system evaluation
- 2.2.2. Gather feedback from existing users or check online reviews

##### **2.3. Selection Process**

- 2.3.1. Evaluate the system based on usability, cost, and customization
- 2.3.2. Finalize Software Recommendation and security
- 2.3.3. Make the final selection and obtain approval from Mr. Lim

##### **2.4. Procurement**

- 2.4.1. Negotiate contract and pricing
- 2.4.2. Purchase software system

#### **3. Hardware Selection**

##### **3.1. Research and Selection Process**

- 3.1.1. Identify required hardware (servers, PCs, networking devices)
- 3.1.2. Compare hardware specifications and pricing
- 3.1.3. Evaluate compatibility with the selected software system
- 3.1.4. Get recommendations from IT experts or suppliers

##### **3.2. Procurement**

- 3.2.1. Finalize hardware selection based on budget and performance
- 3.2.2. Obtain approval from Mr. Lim for purchase
- 3.2.3. Negotiate pricing and warranty terms with suppliers
- 3.2.4. Place orders and track delivery schedules



#### **4. Network (Internet) Evaluation and Selection**

##### **4.1. Research and Selection Process**

- 4.1.1. Compare internet service providers (ISP) for speed, cost, and reliability
- 4.1.2. Evaluate bandwidth requirements based on user load
- 4.1.3. Assess network hardware requirements (e.g., routers, access points, and, cables)

##### **4.2. Procurement**

- 4.2.1. Finalize network hardware and internet plan selection
- 4.2.2. Obtain approval from Mr. Lim for purchase and ISP subscription
- 4.2.3. Place orders for network devices and set installation date with ISP

#### **5. System Deployment**

##### **5.1. Infrastructure Setup**

- 5.1.1. Install required hardware (Laptops, printers, mice, etc)
- 5.1.2. Set up network and internet connectivity

##### **5.2. Software Installation**

- 5.2.1. Install system at main tuition center
- 5.2.2. Create sample user accounts for students, tutors, and admins

##### **5.3. Branch Deployment**

- 5.3.1. Install and configure the system at all branches
- 5.3.2. Test remote access and multi-location functionality

#### **6. Testing and Training**

##### **6.1. System Testing**

- 6.1.1. Test all features (enrollment, scheduling, payment processing, reporting)
- 6.1.2. Verify user role permissions and access control
- 6.1.3. Identify and fix software bugs

##### **6.2. Pilot Testing**

- 6.2.1. Run the system in parallel with the old scheduling method
- 6.2.2. Collect feedback from users
- 6.2.3. Implement necessary adjustments before full deployment

##### **6.3. Security Testing**

- 6.3.1. Ensure compliance with data privacy regulations
- 6.3.2. Test system vulnerabilities and security patches

##### **6.4. User Training**

- 6.4.1. Train administrative staff on managing schedules
- 6.4.2. Train tutors on accessing timetables and reports
- 6.4.3. Provide guides and user manuals



**7. Project Closure and Handover**

**7.1. Final System Review**

- 7.1.1. Confirm system stability and reliability
- 7.1.2. Ensure all branches are fully operational

**7.2. Documentation and Handover**

- 7.2.1. Document system configuration and troubleshooting steps
- 7.2.2. Provide final training materials to staff

**7.3. Post-Deployment Support**

- 7.3.1. Provide technical support and training for users during the initial rollout period
- 7.3.2. Establish a helpdesk or support channel for troubleshooting and assistance

**6.3.2.2 Schedule Allocation**

It breaks down the project into key phases, including project initiation, planning, software and hardware selection, procurement, system deployment, testing, training, and final handover. Each task is assigned a specific duration and timeline to ensure a structured and efficient implementation process.

Main Task	Task	Sub-Task	Duration (Days)	Start Date	End Date	Total Duration
<b>Project Initiation</b>	<b>Requirement Analysis</b>	Interview Mr. Lim to gather requirements	3	Feb 4	Feb 6	<b>19</b>
		Identify system users (students, tutors, admin)	1	Feb 7	Feb 7	
		Define key functionalities (scheduling, reporting, etc.)	2	Feb 10	Feb 11	
		Identify budget and timeline	2	Feb 12	Feb 13	
	<b>Project Planning</b>	Define project scope	3	Feb 14	Feb 18	
		Identify stakeholders (Mr. Lim, tutors, staff)	2	Feb 19	Feb 20	
		Allocate project team roles	3	Feb 21	Feb 25	
		Develop project schedule	3	Feb 26	Feb 28	



Main Task	Task	Sub-Task	Duration (Days)	Start Date	End Date	Total Duration
Software Evaluation and Selection	Research Software Solutions	Identify available software options (off-the-shelf or custom-built)	3	Mar 3	Mar 5	23
		Compare pricing, features, and support	3	Mar 6	Mar 10	
		Conduct Software Trials and Evaluate Performance	2	Mar 11	Mar 12	
	Software Testing	Research available tutorials and resources for system evaluation	2	Mar 13	Mar 14	
		Gather feedback from existing users or check online reviews	2	Mar 17	Mar 18	
	Selection Process	Evaluate the system based on usability, cost, and customization	3	Mar 19	Mar 21	
		Finalize Software Recommendation and security	2	Mar 24	Mar 25	
		Make the final selection and obtain approval from Mr. Lim	2	Mar 26	Mar 27	
	Procurement	Negotiate contract and pricing	2	Mar 28	Mar 31	
		Purchase software system	2	Apr 1	Apr 2	





Main Task	Task	Sub-Task	Duration (Days)	Start Date	End Date	Total Duration
<b>Hardware Selection</b>	<b>Research and Selection Process</b>	Identify required hardware (servers, PCs, networking devices)	3	Apr 3	Apr 7	<b>19</b>
		Compare hardware specifications and pricing	3	Apr 8	Apr 10	
		Evaluate compatibility with the selected software system	2	Apr 11	Apr 14	
		Get recommendations from IT experts or suppliers	2	Apr 15	Apr 16	
	<b>Procurement</b>	Finalize hardware selection based on budget and performance	2	Apr 17	Apr 18	
		Obtain approval from Mr. Lim for purchase	2	Apr 21	Apr 22	
		Negotiate pricing and warranty terms with suppliers	2	Apr 23	Apr 24	
		Place orders and track delivery schedules	3	Apr 25	Apr 29	



Main Task	Task	Sub-Task	Duration (Days)	Start Date	End Date	Total Duration
<b>Network (Internet) Evaluation and Selection</b>	<b>Research and Selection Process</b>	Compare internet service providers (ISP) for speed, cost, and reliability	1	Apr 30	Apr 30	<b>25</b>
		Evaluate bandwidth requirements based on user load	1	May 1	May 1	
		Assess network hardware requirements (e.g., routers, access points, and, cables)	1	May 2	May 2	
	<b>Procurement</b>	Finalize network hardware and internet plan selection	1	May 5	May 5	
		Obtain approval from Mr. Lim for purchase and ISP subscription	1	May 6	May 6	
		Place orders for network devices and set installation date with ISP	2	May 7	May 8	
<b>System Deployment</b>	<b>Infrastructure Setup</b>	Install required hardware (Laptops, printers, mice, etc)	3	May 9	May 13	
		Set up network and internet connectivity	2	May 14	May 15	
	<b>Software Installation</b>	Install system at main tuition center	4	May 16	May 21	
		Create sample user accounts for students, tutors, and admins	3	May 22	May 26	
	<b>Branch Deployment</b>	Install and configure the system at all branches	4	May 27	May 30	
		Test remote access and multi-location functionality	2	June 2	June 3	



Main Task	Task	Sub-Task	Duration (Days)	Start Date	End Date	Total Duration
Testing and Training	System Testing	Test all features (enrollment, scheduling, payment processing, reporting)	2	June 4	June 5	28
		Verify user role permissions and access control	2	June 6	June 9	
		Identify and fix software bugs	1	June 10	June 10	
	Pilot Testing	Run the system in parallel with the old scheduling method	2	June 11	June 12	
		Collect feedback from users	1	June 13	June 13	
		Implement necessary adjustments before full deployment	2	June 16	June 17	
	Security Testing	Ensure compliance with data privacy regulations	2	June 18	June 19	
		Test system vulnerabilities and security patches	2	June 20	June 23	
	User Training	Train administrative staff on managing schedules	5	June 24	June 30	
		Train tutors on accessing timetables and reports	5	July 1	July 7	
		Provide guides and user manuals	4	July 8	July 11	



Main Task	Task	Sub-Task	Duration (Days)	Start Date	End Date	Total Duration
Project Closure and Handover	Final System Review	Confirm system stability and reliability	1	July 14	July 14	7
		Ensure all branches are fully operational	1	July 15	July 15	
	Documentation and Handover	Document system configuration and troubleshooting steps	2	July 16	July 17	
		Provide final training materials to staff	1	July 18	July 18	
	Post-Deployment Support	Provide technical support and training for users during the initial rollout period	1	July 21	July 21	
		Establish a helpdesk or support channel for troubleshooting and assistance	1	July 22	July 22	

Table 9: Schedule Overview Table



### **6.3.2.3 Resource Allocation**

As shown below, this chart demonstrates how resources are distributed throughout the project's many stages, including software assessment, hardware selection, and system implementation. Within each phase, particular duties are assigned to the resources, which include positions such as the Project Manager, Software Team, and Hardware Engineer. This allocation guarantees that the skills required for project success are deployed at every step.

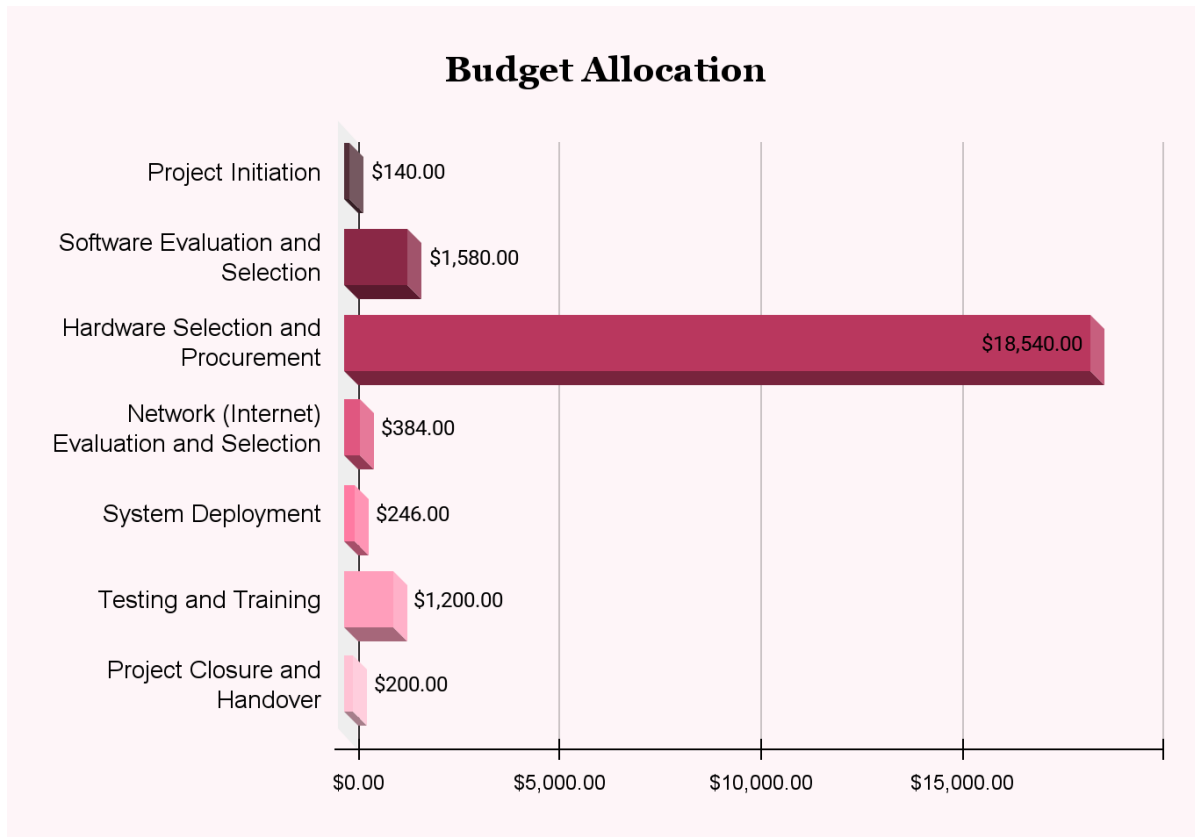


**Figure 3: Overview of Main Tasks, Roles, and Responsibilities**



### **6.3.2.4 Budget Allocation**

The budget allotted to each project phase is graphically represented by the bar chart, which is displayed below. Project beginning needs the least amount of funding, while hardware selection gets the most. The financial investment in each stage is clearly summarized in this breakdown.



**Figure 4: Bar Chart for Budget Allocation**

**6.3.2.5 Microsoft Project Document**

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
		<b>▲ Tuition Center</b>	<b>121 days</b>	<b>Tue 2/4/25</b>	<b>Tue 7/22/25</b>		
		<b>▲ 1. Project Initiation</b>	<b>19 days</b>	<b>Tue 2/4/25</b>	<b>Fri 2/28/25</b>		
		<b>▲ 1.1. Requirement Analysis</b>	<b>8 days</b>	<b>Tue 2/4/25</b>	<b>Thu 2/13/25</b>		
		1.1.1. Interview Mr. Lim to gather requirements	3 days	Tue 2/4/25	Thu 2/6/25		Project Manager[50%], Software Team[50%]
		1.1.2. Identify system users (students, tutors, admin)	1 day	Fri 2/7/25	Fri 2/7/25	4	Project Manager
		1.1.3. Define key functionalities (scheduling, timeline)	2 days	Mon 2/10/25	Tue 2/11/25	5	Project Manager[50%], Software Team[50%]
		1.1.4. Identify budget and timeline	2 days	Wed 2/12/25	Thu 2/13/25	6	Project Manager
		<b>▲ 1.2. Project Planning</b>	<b>11 days</b>	<b>Fri 2/14/25</b>	<b>Fri 2/28/25</b>		
		1.2.1. Define project scope	3 days	Fri 2/14/25	Tue 2/18/25	7	Project Manager
		1.2.2. Identify stakeholders (Mr. Lim, tutors, staff)	2 days	Wed 2/19/25	Thu 2/20/25	9	Project Manager
		1.2.3. Allocate project team roles	3 days	Fri 2/21/25	Tue 2/25/25	10	Project Manager
		1.2.4. Develop project schedule	3 days	Wed 2/26/25	Fri 2/28/25	11	Project Manager

**Figure 5.1: Task Overview of Microsoft Project Documentation**

		Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
13			<b>▲ 2. Software Evaluation and Selection</b>	<b>23 days</b>	<b>Mon 3/3/25</b>	<b>Wed 4/2/25</b>		
14			<b>▲ 2.1. Research Software Solutions</b>	<b>8 days</b>	<b>Mon 3/3/25</b>	<b>Wed 3/12/25</b>		
15			2.1.1. Identify available software options (off-the-shelf or custom-built)	3 days	Mon 3/3/25	Wed 3/5/25	12	Software Team
16			2.1.2. Compare pricing, features, and support	3 days	Thu 3/6/25	Mon 3/10/25	15	Software Team
17			2.1.3. Conduct Software Trials and Evaluate Performance	2 days	Tue 3/11/25	Wed 3/12/25	16	Software Team
18			<b>▲ 2.2. Software Testing</b>	<b>4 days</b>	<b>Thu 3/13/25</b>	<b>Tue 3/18/25</b>		
19			2.2.1. Research available tutorials and resources for system evaluation	2 days	Thu 3/13/25	Fri 3/14/25	17	Software Team
20			2.2.2. Gather feedback from existing users or check online reviews	2 days	Mon 3/17/25	Tue 3/18/25	19	Software Team

**Figure 5.2: Task Overview of Microsoft Project Documentation**



		Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Resource Names ▾
21			<b>2.3. Selection Process</b>	<b>7 days</b>	<b>Wed 3/19/25</b>	<b>Thu 3/27/25</b>		
22			2.3.1. Evaluate the system based on usability, cost, and customization	3 days	Wed 3/19/25	Fri 3/21/25	20	Software Team
23			2.3.2. Finalize Software Recommendation and security	2 days	Mon 3/24/25	Tue 3/25/25	22	Software Team
24			2.3.3. Make the final selection and obtain approval from Mr. Lim	2 days	Wed 3/26/25	Thu 3/27/25	23	Project Manager[50%], Software Team[50%]
25			<b>2.4. Procurement</b>	<b>4 days</b>	<b>Fri 3/28/25</b>	<b>Wed 4/2/25</b>		
26			2.4.1. Negotiate contract and pricing	2 days	Fri 3/28/25	Mon 3/31/25	24	Project Manager[50%], Software Team[50%]
27			2.4.2. Purchase software system	2 days	Tue 4/1/25	Wed 4/2/25	26	Project Manager[50%], Software Team[50%]

Figure 5.3: Task Overview of Microsoft Project Documentation

		Task Mode ▾	Task Name ▾	Duration ▾	Start ▾	Finish ▾	Predecessors ▾	Resource Names ▾
28			<b>3. Hardware Selection</b>	<b>19 days</b>	<b>Thu 4/3/25</b>	<b>Tue 4/29/25</b>		
29			<b>3.1. Research and Selection Process</b>	<b>10 days</b>	<b>Thu 4/3/25</b>	<b>Wed 4/16/25</b>		
30			3.1.1. Identify required hardware (servers, PCs, networking devices)	3 days	Thu 4/3/25	Mon 4/7/25	27	Hardware Engineer
31			3.1.2. Compare hardware specifications and pricing	3 days	Tue 4/8/25	Thu 4/10/25	30	Hardware Engineer
32			3.1.3. Evaluate compatibility with the selected software system	2 days	Fri 4/11/25	Mon 4/14/25	31	Hardware Engineer
33			3.1.4. Get recommendations from IT experts or suppliers	2 days	Tue 4/15/25	Wed 4/16/25	32	Hardware Engineer
34			<b>3.2. Procurement</b>	<b>9 days</b>	<b>Thu 4/17/25</b>	<b>Tue 4/29/25</b>		
35			3.2.1. Finalize hardware selection based on budget and performance	2 days	Thu 4/17/25	Fri 4/18/25	33	Hardware Engineer [50%], Project Manager[50%]
36			3.2.2. Obtain approval from Mr. Lim for purchase	2 days	Mon 4/21/25	Tue 4/22/25	35	Hardware Engineer , Project Manager
37			3.2.3. Negotiate pricing and warranty terms with suppliers	2 days	Wed 4/23/25	Thu 4/24/25	36	Hardware Engineer [50%], Project Manager[50%]
38			3.2.4. Place orders and track delivery schedules	3 days	Fri 4/25/25	Tue 4/29/25	37	Hardware Engineer [50%], Project Manager[50%]

Figure 5.4: Task Overview of Microsoft Project Documentation





		Task Name	Duration	Start	Finish	Predecessors	Resource Names
39		<b>4. Network (Internet) Evaluation and Selection</b>	<b>7 days</b>	<b>Wed 4/30/25</b>	<b>Thu 5/8/25</b>		
40		<b>4.1. Research and Selection Process</b>	<b>3 days</b>	<b>Wed 4/30/25</b>	<b>Fri 5/2/25</b>		
41		4.1.1. Compare internet service providers (ISP) for speed, cost, and reliability	1 day	Wed 4/30/25	Wed 4/30/25	38	Network Engineer
42		4.1.2. Evaluate bandwidth requirements based on user load	1 day	Thu 5/1/25	Thu 5/1/25	41	Network Engineer
43		4.1.3. Assess network hardware requirements (e.g., routers, access points, and, cables)	1 day	Fri 5/2/25	Fri 5/2/25	42	Network Engineer
44		<b>4.2. Procurement</b>	<b>4 days</b>	<b>Mon 5/5/25</b>	<b>Thu 5/8/25</b>		
45		4.2.1. Finalize network hardware and internet plan selection	1 day	Mon 5/5/25	Mon 5/5/25	43	Network Engineer [50%], Project Manager[50%]
46		4.2.2. Obtain approval from Mr. Lim for purchase and ISP subscription	1 day	Tue 5/6/25	Tue 5/6/25	45	Network Engineer [50%], Project Manager[50%]
47		4.2.3. Place orders for network devices and set installation date with ISP	2 days	Wed 5/7/25	Thu 5/8/25	46	Network Engineer [50%], Project Manager[50%]

Figure 5.5: Task Overview of Microsoft Project Documentation

		Task Name	Duration	Start	Finish	Predecessors	Resource Names
48		<b>5. System Deployment</b>	<b>18 days</b>	<b>Fri 5/9/25</b>	<b>Tue 6/3/25</b>		
49		<b>5.1. Infrastructure Setup</b>	<b>5 days</b>	<b>Fri 5/9/25</b>	<b>Thu 5/15/25</b>		
50		5.1.1. Install required hardware (Laptops, printers, mice, etc)	3 days	Fri 5/9/25	Tue 5/13/25	47	Hardware Engineer
51		5.1.2. Set up network and internet connectivity	2 days	Wed 5/14/25	Thu 5/15/25	50	Network Engineer
52		<b>5.2. Software Installation</b>	<b>7 days</b>	<b>Fri 5/16/25</b>	<b>Mon 5/26/25</b>		
53		5.2.1. Install system at main tuition center	4 days	Fri 5/16/25	Wed 5/21/25	51	Hardware Engineer [33%], Network Engineer [33%], Software Team[34%]
54		5.2.2. Create sample user accounts for students, tutors, and admins	3 days	Thu 5/22/25	Mon 5/26/25	53	Software Team
55		<b>5.3. Branch Deployment</b>	<b>6 days</b>	<b>Tue 5/27/25</b>	<b>Tue 6/3/25</b>		
56		5.3.1. Install and configure the system at all branches	4 days	Tue 5/27/25	Fri 5/30/25	54	Hardware Engineer [33%], Network Engineer [33%], Software Team[34%]
57		5.3.2. Test remote access and multi-location functionality	2 days	Mon 6/2/25	Tue 6/3/25	56	Network Engineer [50%], Software Team[50%]

Figure 5.6: Task Overview of Microsoft Project Documentation



	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
58		<b>6. Testing and Training</b>	<b>28 days</b>	<b>Wed 6/4/25</b>	<b>Fri 7/11/25</b>		
59		<b>6.1. System Testing</b>	<b>5 days</b>	<b>Wed 6/4/25</b>	<b>Tue 6/10/25</b>		
60		6.1.1. Test all features (enrollment, scheduling, payment processing, reporting)	2 days	Wed 6/4/25	Thu 6/5/25	57	Tester
61		6.1.2. Verify user role permissions and access control	2 days	Fri 6/6/25	Mon 6/9/25	60	Tester
62		6.1.3. Identify and fix software bugs	1 day	Tue 6/10/25	Tue 6/10/25	61	Tester
63		<b>6.2. Pilot Testing</b>	<b>5 days</b>	<b>Wed 6/11/25</b>	<b>Tue 6/17/25</b>		
64		6.2.1. Run the system in parallel with the old scheduling method	2 days	Wed 6/11/25	Thu 6/12/25	62	Tester
65		6.2.2. Collect feedback from users	1 day	Fri 6/13/25	Fri 6/13/25	64	Tester
66		6.2.3. Implement necessary adjustments before full deployment	2 days	Mon 6/16/25	Tue 6/17/25	65	Tester

Figure 5.7: Task Overview of Microsoft Project Documentation

	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names
67		<b>6.3. Security Testing</b>	<b>4 days</b>	<b>Wed 6/18/25</b>	<b>Mon 6/23/25</b>		
68		6.3.1. Ensure compliance with data privacy regulations	2 days	Wed 6/18/25	Thu 6/19/25	66	Tester
69		6.3.2. Test system vulnerabilities and security patches	2 days	Fri 6/20/25	Mon 6/23/25	68	Tester
70		<b>6.4. User Training</b>	<b>14 days</b>	<b>Tue 6/24/25</b>	<b>Fri 7/11/25</b>		
71		6.4.1. Train administrative staff on managing schedules	5 days	Tue 6/24/25	Mon 6/30/25	69	Trainer
72		6.4.2. Train tutors on accessing timetables and reports	5 days	Tue 7/1/25	Mon 7/7/25	71	Trainer
73		6.4.3. Provide guides and user manuals	4 days	Tue 7/8/25	Fri 7/11/25	72	Trainer

Figure 5.8: Task Overview of Microsoft Project Documentation



	Task Mode ▼	Task Name ▼	Duration ▼	Start ▼	Finish ▼	Predecessors ▼	Resource Names ▼
74		<b>7. Project Closure and Handover</b>	<b>7 days</b>	<b>Mon 7/14/25</b>	<b>Tue 7/22/25</b>		
75		<b>7.1. Final System Review</b>	<b>2 days</b>	<b>Mon 7/14/25</b>	<b>Tue 7/15/25</b>		
76		7.1.1. Confirm system stability and reliability	1 day	Mon 7/14/25	Mon 7/14/25	73	Project Manager[50%], Software Team[50%]
77		7.1.2. Ensure all branches are fully operational	1 day	Tue 7/15/25	Tue 7/15/25	76	Hardware Engineer [33%], Network Engineer [33%], Software Team[34%]
78		<b>7.2. Documentation and Handover</b>	<b>3 days</b>	<b>Wed 7/16/25</b>	<b>Fri 7/18/25</b>		
79		7.2.1. Document system configuration and troubleshooting steps	2 days	Wed 7/16/25	Thu 7/17/25	77	IT Support Team
80		7.2.2. Provide final training materials to staff	1 day	Fri 7/18/25	Fri 7/18/25	79	Trainer
81		<b>7.3. Post-Deployment Support</b>	<b>2 days</b>	<b>Mon 7/21/25</b>	<b>Tue 7/22/25</b>		
82		7.3.1. Provide technical support and training for users during the initial rollout period	1 day	Mon 7/21/25	Mon 7/21/25	80	IT Support Team
83		7.3.2. Establish a helpdesk or support channel for troubleshooting and assistance	1 day	Tue 7/22/25	Tue 7/22/25	82	IT Support Team

**Figure 5.9: Task Overview of Microsoft Project Documentation**



## Gantt Chart

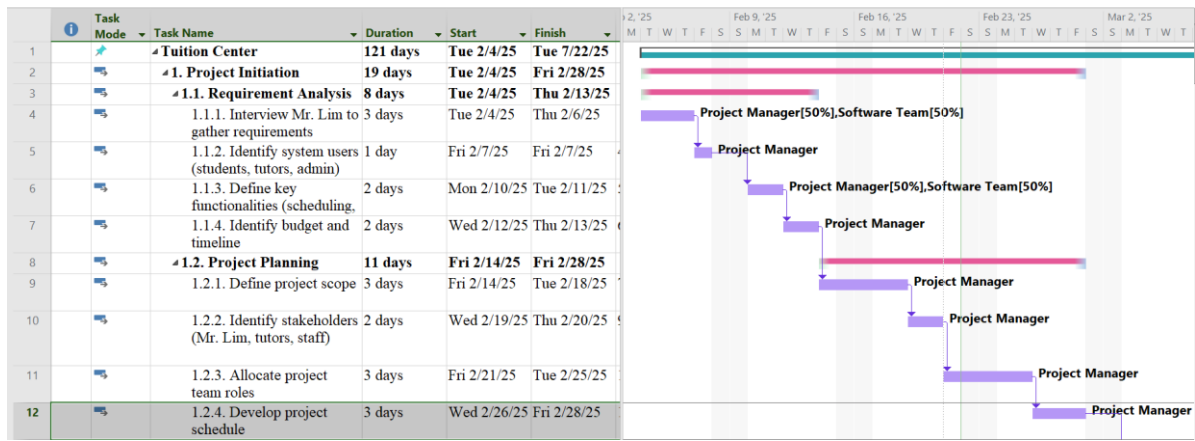


Figure 6.1: Gantt Chart of Microsoft Project Documentation

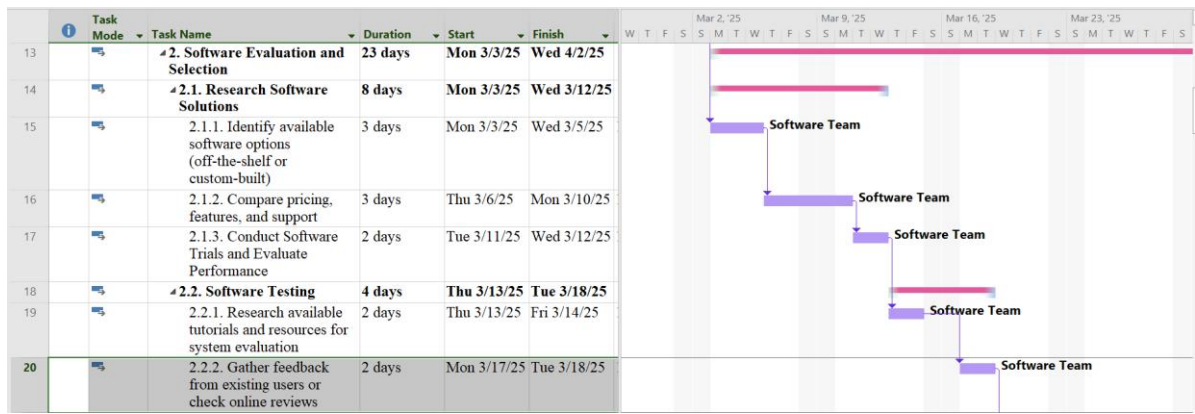


Figure 6.2: Gantt Chart of Microsoft Project Documentation

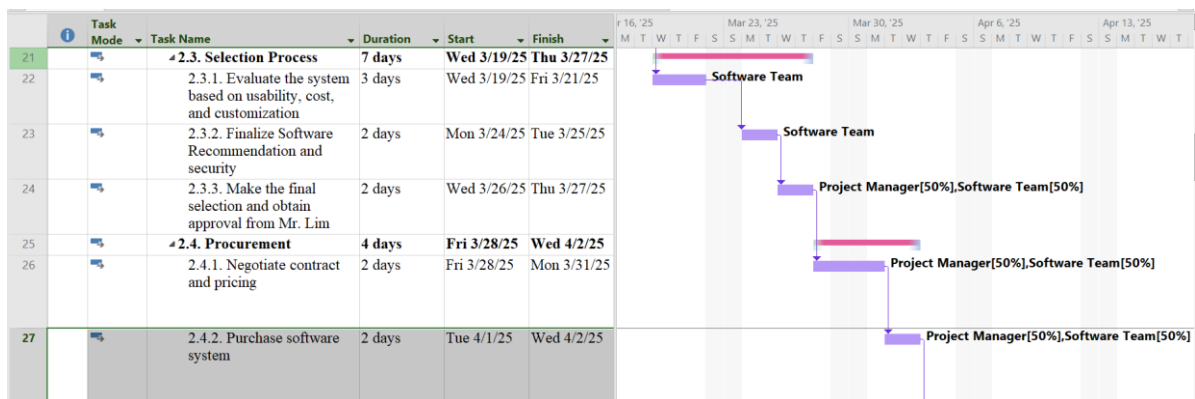


Figure 6.3: Gantt Chart of Microsoft Project Documentation

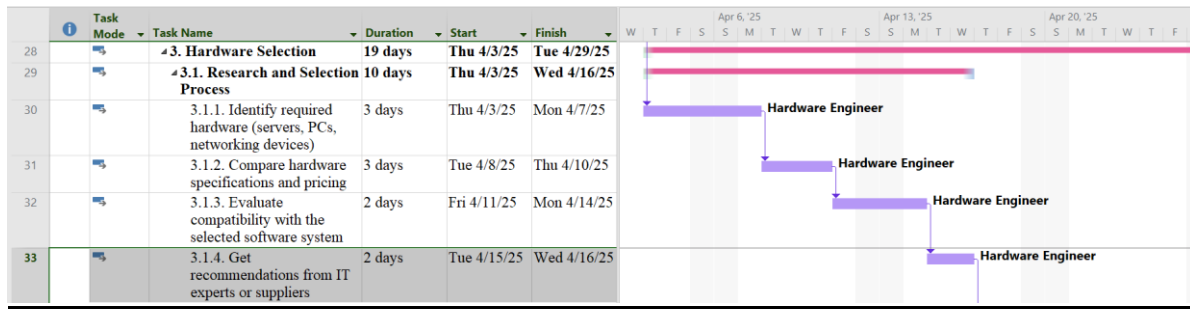


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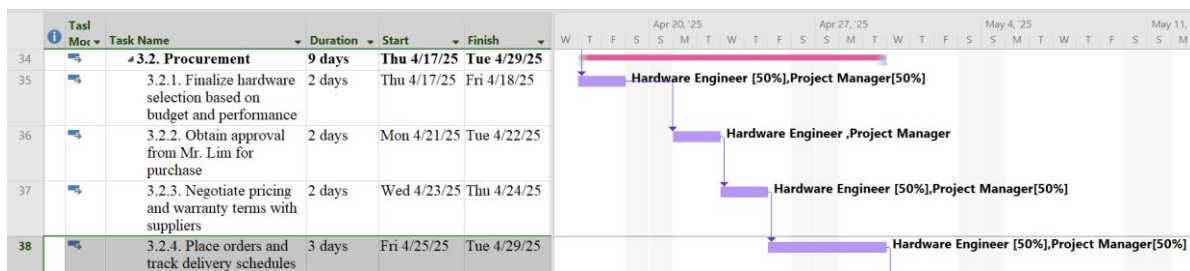


Figure 6.5: Gantt Chart of Microsoft Project Documentation

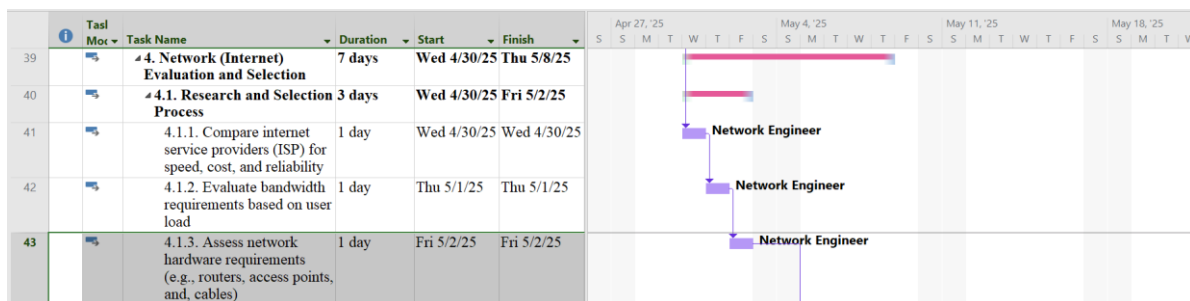


Figure 6.6: Gantt Chart of Microsoft Project Documentation

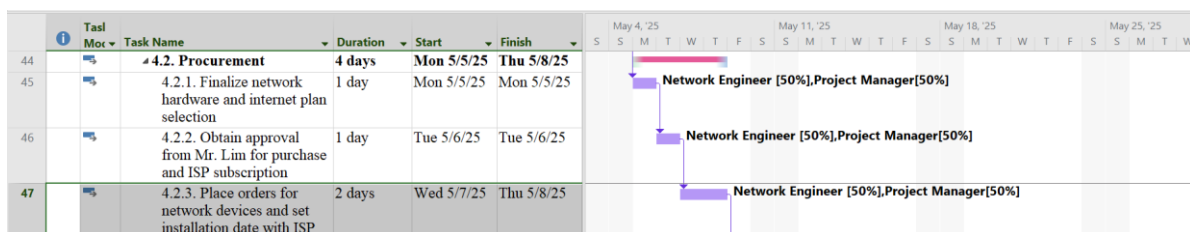


Figure 6.7: Gantt Chart of Microsoft Project Documentation

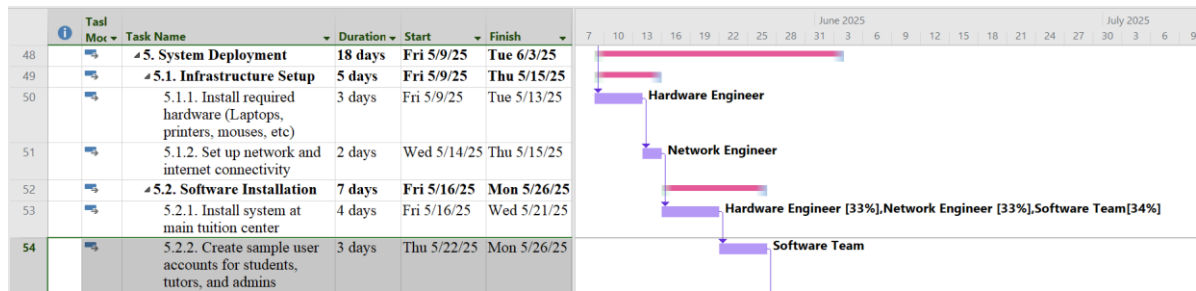


Figure 6.8: Gantt Chart of Microsoft Project Documentation

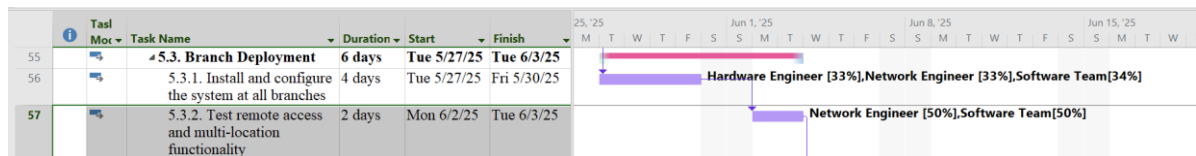


Figure 6.9: Gantt Chart of Microsoft Project Documentation

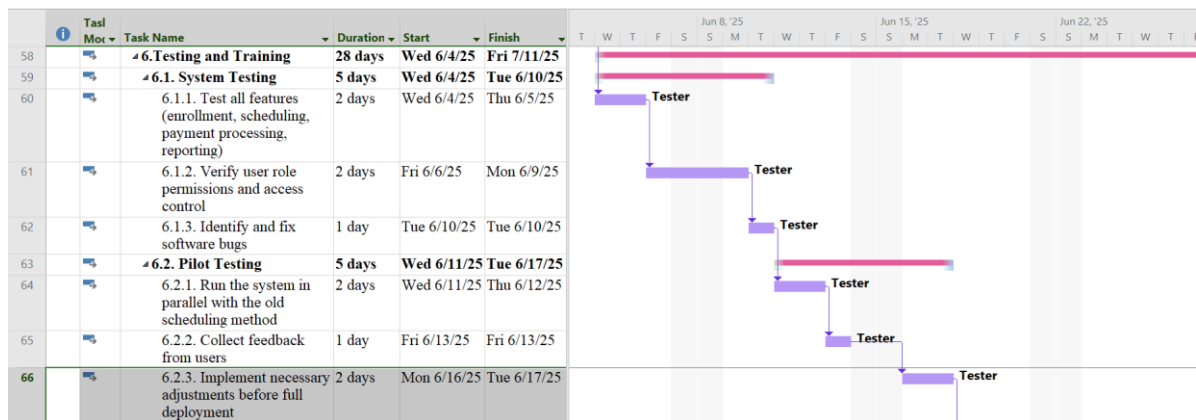


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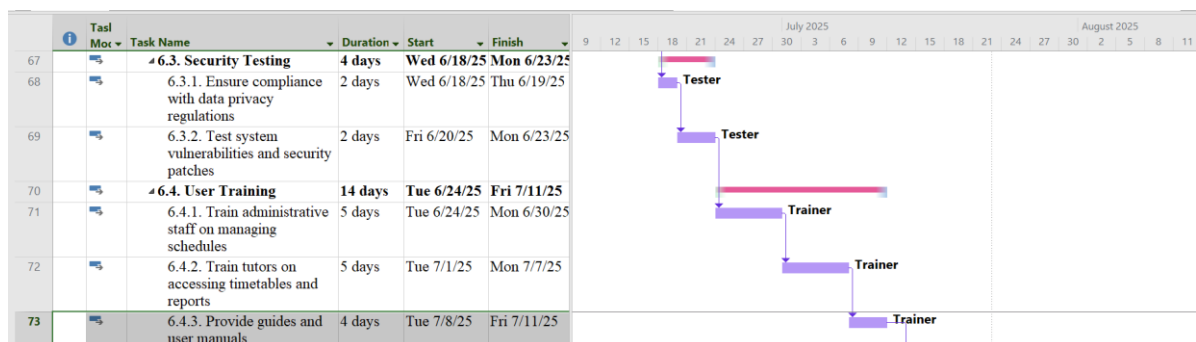


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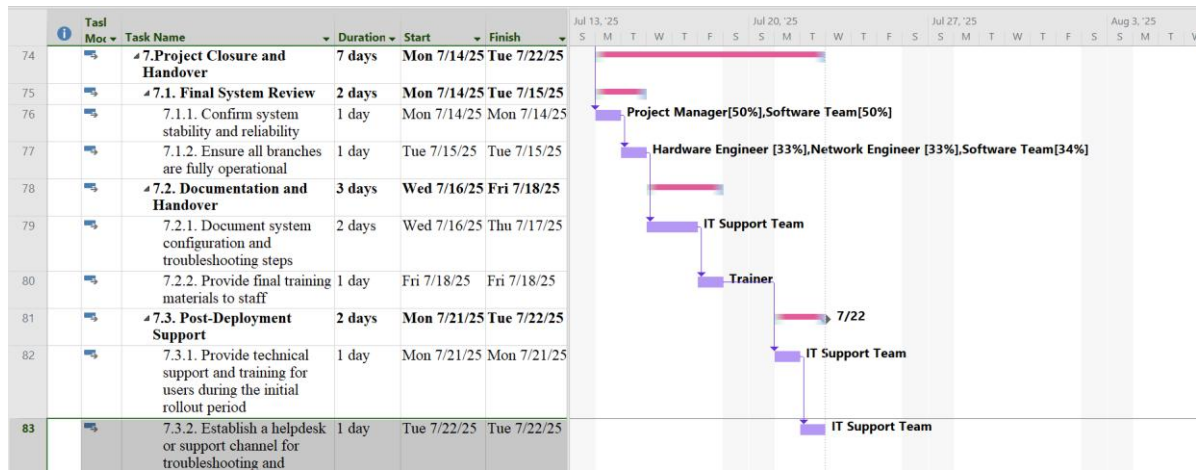


Figure 6.12: Gantt Chart of Microsoft Project Documentation

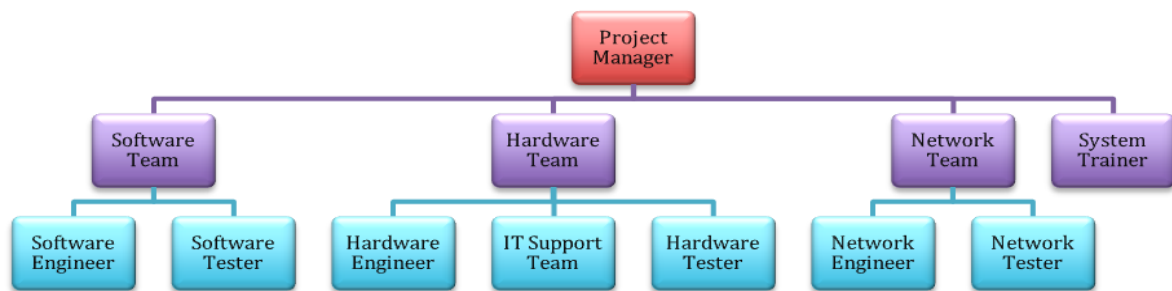


### **6.3.3 Support Plans**

#### **6.3.3.1 Human Resource Management Plan**

##### **6.3.3.1.1 Organizational Chart**

This section outlines the organizational structure, providing a clear view of how members are organized and their respective positions within the system.



**Figure 7: Organizational Chart**

##### **6.3.3.1.2 Human Resource Management Plan: Roles, Responsibilities, and Execution**

The Human Resource Management Plan ensures the effective allocation of roles and responsibilities for project execution. The Project Manager oversees planning, requirement analysis, and maintenance, while the Software Team handles requirement analysis and software implementation. The Hardware Engineer manages hardware installation, and the Network Engineer is responsible for network setup. The IT Support Team provides maintenance and troubleshooting, while the Trainer conducts end-user training. The Tester ensures system functionality and quality. Resource allocation follows Table 9: Staff Acquisition Table, ensuring smooth coordination. Performance monitoring, training, and conflict resolution mechanisms are in place to ensure project success and seamless handover.





### **6.3.3.2 Quality Management Plan**

The Quality Management Plan ensures that all project deliverables meet established standards through rigorous quality assurance and control processes. This includes conformance to defined workflows, verification, validation, joint reviews, and regular audits. Key activities include evaluating software, hardware, and network solutions for usability, performance, and security; conducting thorough system testing (functional, pilot, and security); and providing comprehensive user training. Quality will be monitored throughout the deployment and post-deployment phases to ensure system stability, compliance with requirements, and stakeholder satisfaction. Documentation and continuous support will further ensure long-term operational success.

### **6.3.4 Project Closeout Plan**

An effective project closeout step is essential to the effective completion of the TutorCruncher deployment at Mr. Lim's Tuition Center. This plan guarantees a formal completion, confirming that all goals are accomplished and that Mr. Lim formally accepts the deliverables. A final system walkthrough for important stakeholders and confirmation of the completion and acceptance of all deliverables listed in Table 4 in section 6.1.3 (Deliverables Items Table) marks the start of this phase. Project plans, requirements, training materials, and other comprehensive paperwork will be completed and safely stored. The project team and stakeholders will provide input on areas for improvement and lessons learned during a critical post-implementation review. All project resources will be formally released, including the hardware/software and the people mentioned in section 6.2.1 Internal Interfaces as the project team.

After creating and presenting a final project report that summarizes the project's results and lessons learned, Mr. Lim will receive a notification from the stakeholders announcing the project's conclusion. The project manager will make sure that all closeout tasks are finished in two weeks, and that the \$19,814 budget allotted for them is based on estimations in Table 7 in section 6.3.1.2. Mr. Lim will formally sign off on the project after this methodical approach, attesting to its effective completion and the achievement of its goals within the specified limits and timeframe.



## **Conclusion**

### **Author - Team**

In conclusion, this document details a comprehensive plan to implement TutorCruncher for Mr. Lim's expanding tuition center. Because of its strong features, scalability, and capacity to simplify administrative duties, TutorCruncher was determined to be the best software option after a rigorous evaluation procedure. This helped to support the center's expansion and operational effectiveness. To guarantee a successful deployment within five months, the project plan specifies the essential actions, such as money allocation, resource acquisition, and a thorough timeline. This program seeks to improve the overall management procedures and support the long-term viability of Mr. Lim's tuition center by tackling important goals such as course creation, student and tutor management, and financial sustainability.



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