



Lesson 4

PROJECT PLANNING

AND SCHEDULING



หัวข้อเรื่อง (Topics)

1. Introduction to Project Planning and Scheduling
2. Creating Project Timelines and Schedules
3. Allocating Resources Efficiently
4. Identifying Critical Path and Milestones
5. Using English to Communicate Project Plans Effectively

1. Introduction to Project Planning and Scheduling

Project planning and scheduling are key to running projects well.

- **Project planning** means setting clear goals, deciding what the project covers, and finding the needed resources (people, materials, money).

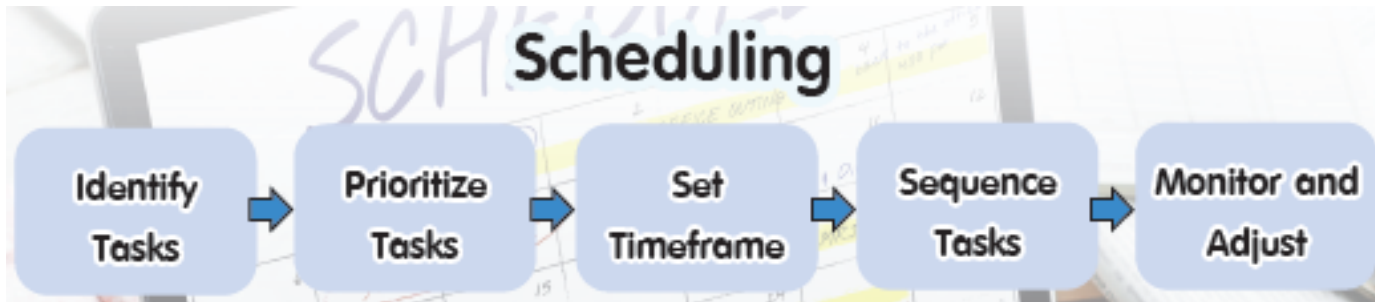
Project planning

setting clear goals

deciding what the project covers

finding the needed resource
(people, materials, money)

- **Scheduling** means arranging tasks step-by-step to meet deadlines.



Good use of resources prevents waste and increases productivity. In short, planning and scheduling help use resources wisely, finish tasks on time, and reach project goals.

2. Creating project timelines and schedules

Timelines break projects into tasks, arrange them, estimate time, and set deadlines.



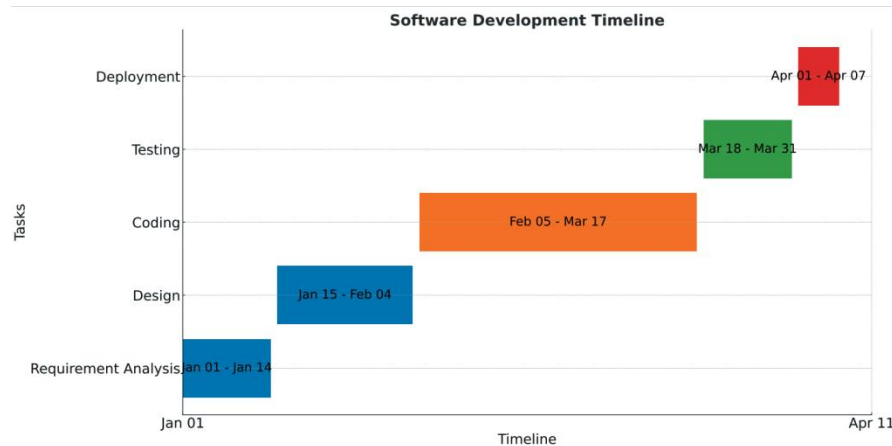
Example Software Development Timeline

1. Requirement Analysis: Gather project needs. (2 weeks: Jan 1–14, 2024)
2. Design: Create system and interface designs. (3 weeks: Jan 15–Feb 4, 2024)
3. Coding: Write the program. (6 weeks: Feb 5–Mar 17, 2024)
4. Testing: Check if the software works. (2 weeks: Mar 18–Mar 31, 2024)
5. Deployment: Deliver the software. (1 week: Apr 1–7, 2024)

Timeline Table

Task	Description:	Duration	Start Date	End Date
Requirement Analysis	Gather project needs.	2 weeks	Jan 1, 2024	Jan 14, 2024
Design	Create system and interface designs.	3 weeks	Jan 15, 2024	Feb 4, 2024
Coding	Write the program.	6 weeks	Feb 5, 2024	Mar 17, 2024
Testing	Check if the software works.	2 weeks	Mar 18, 2024	Mar 31, 2024
Deployment	Deliver the software.	1 week	Apr 1, 2024	Apr 7, 2024

Example of Software Development Timeline



Exercise 1 : Read the task list below and fill in the missing details (Description, Duration, Start Date, End Date) in the table.

Project Tasks :

- 1. Requirement Analysis** – Find out what the project needs and set goals. (2 weeks)
- 2. Design** – Plan how the project will look and work. (3 weeks)
- 3. Coding** – Write the program and build the system. (6 weeks)
- 4. Testing** – Check if everything works and fix problems. (2 weeks)
- 5. Deployment** – Deliver the finished project. (1 week)

The project starts on January 1, 2024. Use this date to calculate the Start and End Dates for each task



Task	Description:	Duration	Start Date	End Date

3. Allocating Resources Efficiently

Efficient resource allocation means giving the right people, tools, and materials to the right tasks at the right time. This helps work go smoothly, saves money, and prevents delays.



Example Construction of a Residential Building

Task	Personnel	Equipment	Materials
Foundation Laying	Masons, laborers	Excavators, concrete mixers	Concrete, steel bars, formwork
Framing	Carpenters, framers	Saws, nail guns, drills	Lumber, plywood, nails
Roofing	Roofers	Roofing nailers, ladders	Roofing shingles, flashing
Finishing	Painters, finish carpenters	Paint sprayers, sanders	Paint, flooring materials
Foundation Laying	Masons, laborers	Excavators, concrete mixers	Concrete, steel bars, formwork

Exercise 2 : Allocating Resources Efficiently

Scenario :

You are leading a student team to run an event about the environment. The event has workshops, guest talks, and exhibits. Your team has different skills and access to equipment.

Task :

1. Choose the right people, equipment, and materials for each activity.
2. Write them in the table.

Activities	Personnel	Equipment	Materials
Workshop Organization			
Guest Speaker Arrangement			
Interactive Exhibit Setup			
Marketing and Promotion			
Event Logistics			

4. Identifying Critical Path and Milestones

The critical path is the list of tasks that take the longest time and directly affect when the project finishes. Milestones are key points that show big progress or the completion of major steps



Example : Critical Path and Milestones

Critical Path for a product development project:

- Product Design: 4 weeks (Jan 1–Jan 28, 2024)
- Prototype Development: 6 weeks (Jan 29–Mar 10, 2024)
- Testing: 3 weeks (Mar 11–Mar 31, 2024)
- Production: 5 weeks (Apr 1–May 5, 2024)

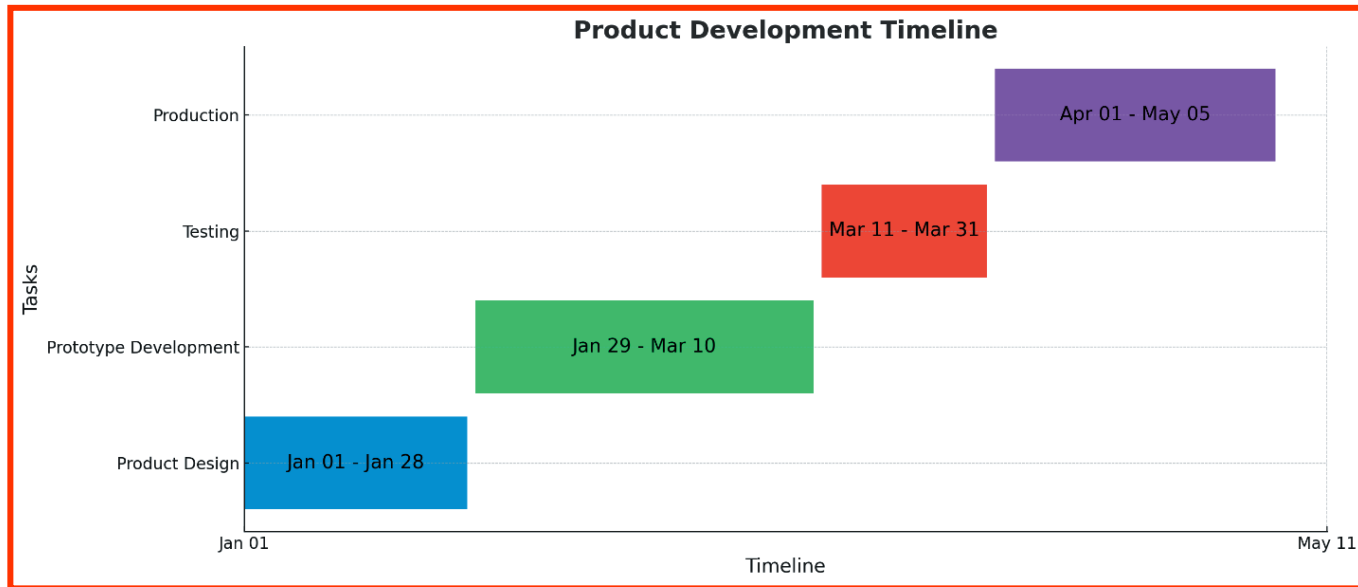


Milestones :

- Product Design finished: Jan 28, 2024
- Prototype Development finished: Mar 10, 2024
- Testing finished: Mar 31, 2024
- Product Launch: May 5, 2024

Task	Duration	Start Date	End Date
Product Design	4 weeks	Jan 1, 2024	Jan 28, 2024
Prototype Development	6 weeks	Jan 29, 2024	Mar 10, 2024
Testing	3 weeks	Mar 11, 2024	Mar 31, 2024
Production	5 weeks	Apr 1, 2024	May 5, 2024

Example of Critical Path and Milestones



Exercise 3 : Critical Path and Milestones in a Factory.

Scenario :

You are managing a factory project with tasks like buying materials, manufacturing, quality control, and packaging. Your job is to find the critical path (longest tasks) and mark milestones (key completions).

Instructions :

1. Look at the tasks and durations:
 - Raw Material Procurement : 3 weeks
 - Manufacturing : 6 weeks
 - Quality Control : 2 weeks
 - Packaging : 1 week
2. Start the project on January 1, 2024.
3. Find the critical path and milestones.
4. Complete the table below.

Task	Duration	Start Date	End Date
Raw Material Procurement	3 weeks	Jan 1, 2024	Jan 21, 2024
Manufacturing			
Quality Control			
Packaging			

5. Using English to Communicate Project Plans Effectively

Good project communication makes sure everyone understands the goals, deadlines, progress, and next steps. Clear and polite English is important for teamwork and success.

Example : Project Plan Email



From: Mr. Rapin Yindee <rapin@example.com>
To: Stakeholders <team@example.com>
Subject: Update on Mobile Application Development
Date: January 5, 2024

Dear Stakeholders,

I hope you are well. Here is the latest update on our mobile app project.

Objective:

To create a user-friendly app that boosts customer engagement and sales.

Project Timeline:

- Requirements Gathering: Jan 1 - Jan 14, 2024
- Design & Development: Jan 15 - Mar 10, 2024
- Testing: Mar 11 - Mar 31, 2024
- Deployment: Apr 1 - Apr 14, 2024

Progress Update:

We are now designing and developing. Designs are done; coding has started.

Next Steps:

- Finish development by Mar 10, 2024
- Start testing on Mar 11, 2024

Please let me know if you have any questions or suggestions.

Thank you for your support!

Best regards,

Mr. Rapin Yindee

Principles of Writing Project Communication Emails

Good project emails help teams stay informed and organized. Clear and polite messages make communication easier and more effective. The table below shows key principles and example of useful phrases for writing project

Principle	Expression	Example / Additional Example
Clarity and Conciseness	Use simple words, short sentences	• “The meeting is scheduled for February 10 at 10:00 AM.” • “We are now in the final phase and expect to finish by March 31.”
Subject Line	State the purpose clearly	• “Project Update: Website Development Progress” • “Action Needed: Feedback on Proposal Draft”

Principle	Expression	Example / Additional Example
Introduction	Start friendly and state purpose	• “Dear Team, I hope this email finds you well. Here’s an update on our project.” • “Greetings Stakeholders, I’m writing to share the latest updates.”
Organization	Use headings or lists	• Objective: To launch the website by April 1. • Timeline: 1. Research: Feb 1–Feb 7 2. Design: Feb 8–Feb 21 3. Testing: Mar 1–Mar 20
Timelines and Deadlines	Give clear dates.	• “Please submit your final draft by February 15.” • “Testing must be completed by March 25 to stay on schedule.”



Exercise 4: Fill in the Blanks. Complete the sentences below by filling in the missing words or phrases based on Principles of Writing Project Communication Emails.

Project Update	finds you well	timeline	February 15
next steps	progress	clear and concise	
confirm your attendance		questions	polite tone

1. Clarity and Conciseness :

"Make sure your message is _____ so it is easy to understand and avoids confusion."

2. Subject Line :

"_____ : Website Development Progress"

3. Introduction :

"I hope this email _____ and provides you with the necessary details."



4. Organization :

"The project _____ below outlines the key phases and deadlines."

5. Timelines and Deadlines :

"Please submit your final draft by _____ to meet the project schedule."

6. Updates and Progress :

"We have made great _____ on the project and are ready for the next phase."

7. Next Steps and Actions :

"The _____ include finalizing the agenda and confirming the speaker lineup."

8. Professional Tone :

"Please use a _____ when addressing stakeholders in your email."

9. Call to Action :

"Kindly _____ for the meeting scheduled next Friday at 10:00 AM."

10. Closing :

"If you have any _____ or concerns, feel free to let me

Exercise 5: Writing an Email to Communicate Project Plans

Scenario : You are managing a fundraising event project. Write an email to your team to explain the plan.

Instructions:

1. Follow the Principles of Writing Project Communication Emails.
2. Include these parts: Subject line, Introduction, Objective, Timeline, Progress update, Next steps, Closing.
3. Keep your email short, clear, and polite.





Subject :

Dear Team,

.....
.....

Objective :

.....
.....

Timeline :

.....
.....

Progress Update :

.....
.....

Next Steps:

.....

Best regards,

[.....]

.....

Vocabularies for Project Planning and Scheduling



Vocabularies	Definition	Thai Meaning
Project Planning	Defining goals, scope, and resources for a project.	การวางแผนโครงการ
Scheduling	Organizing tasks step-by-step to meet deadlines.	การจัดตารางเวลา
Resource Allocation	Assigning people, tools, and materials to tasks efficiently.	การจัดสรรทรัพยากร
Critical Path	The longest sequence of dependent tasks that affects the project timeline.	เส้นทางที่สำคัญ
Milestones	Key points in a project timeline marking progress or completion.	จุดหมายสำคัญ
Timelines	A schedule showing task durations and deadlines.	ไทม์ไลน์

Vocabularies	Definition	Thai Meaning
Requirement Analysis	Identifying and understanding what is needed for a project.	การวิเคราะห์ความต้องการ
Deployment	Delivering the completed project or product to users.	การส่งมอบ
Design Phase	Creating system and interface designs based on requirements.	ขั้นตอนการออกแบบ
Coding	Writing the program or software based on the design.	การเขียนโปรแกรม
Testing	Checking that the product or system works correctly.	การทดสอบ

Vocabularies	Definition	Thai Meaning
Task Sequencing	Arranging tasks in the correct order to ensure smooth progress.	การจัดลำดับงาน
Start Date	The date when a task or project begins.	วันที่เริ่มต้น
End Date	The date when a task or project ends.	วันที่สิ้นสุด
Progress Update	Reporting on the current status of a project.	รายงานความก้าวหน้า
Budget Management	Planning and controlling financial resources for a project.	การจัดการงบประมาณ
Stakeholders	People or groups who have an interest in the project outcome.	ผู้มีส่วนได้ส่วนเสีย

Vocabularies	Definition	Thai Meaning
Personnel	People involved in completing project tasks.	บุคลากร
Equipment	Tools and machinery needed to complete tasks.	อุปกรณ์
Materials	Physical items required to complete tasks.	วัสดุ
Efficiency	Using resources in a way that maximizes productivity while minimizing waste.	ความมีประสิทธิภาพ
Duration	The length of time needed to complete a task.	ระยะเวลา
Task	A specific activity or piece of work in a project.	งาน
Goals	The desired results or outcomes of a project.	เป้าหมาย
Dependencies	Tasks that rely on the completion of other tasks before starting.	การพึ่งพากันของงาน