DAY 1 class Notes

Now that we've set the stage, let's dive into the exciting world of PMP! Our first topic will be the Business Envt.

This lesson addresses the concepts and business areas that you should understand before starting a project, supporting learning related to the “Business Environment” domain in the ECO and the “Business Acumen” side of the PMI Talent Triangle.

We also cover foundational project management concepts in this lesson.

Central to this lesson is determining the purpose and expectation for the project, as well as the parameters and expectations of the project within the business.

The business documents which were used to approve the project will provide most of the initial information needed. If these are not available, you will need to quickly determine the purpose and expectation for the project. Having a sharp strategic business acumen and a good foundation in modern project practices will enable you to do this.

All projects are a temporary effort to create value through a unique product, service or result. All projects have a beginning and an end. They have a team, a budget, a schedule and a set of expectations the team needs to meet. Each project is unique and differs from routine operations which is ongoing activities of an organization—because projects reach a conclusion once the goal is achieved.

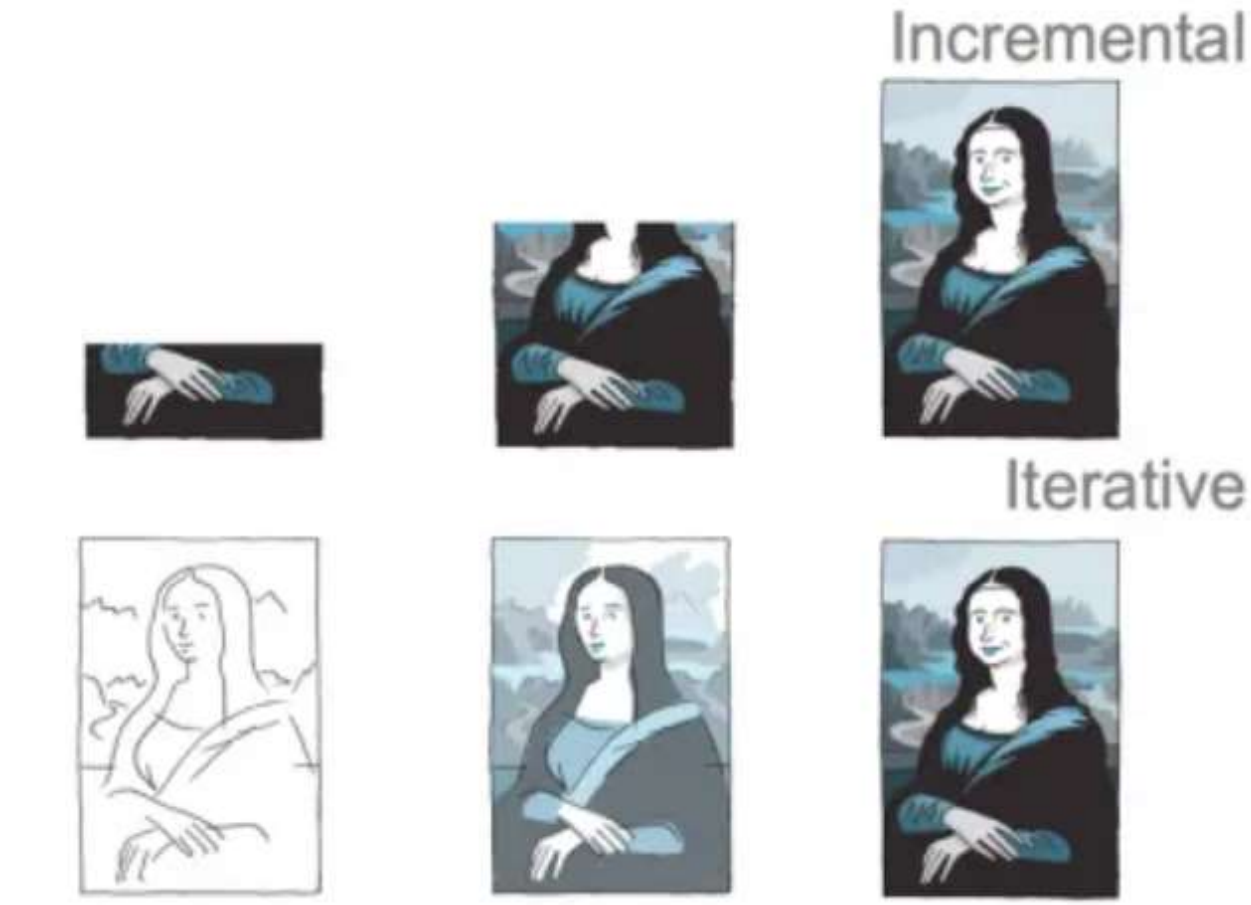
Now, how good are you in managing? This project depends on your organization's maturity. That means your experience in handling projects in the past.

Project management is the use of specific knowledge, skills, tools and techniques to deliver something of value to people. The development of software for an improved business process, the construction of a building, the relief effort after a natural disaster, the expansion of sales into a new geographic market—these are all examples of projects.

Throughout human history, project management has always been practiced informally, in the mid-20th century when a group of individuals from the aerospace, engineering, pharmaceutical, and telecommunications fields realized a changing world needed new tools. they met to begin to set down and standardize the tools for a new profession to address the scheduling and resource issues associated with increasingly complex projects. And in 1969, the Project Management Institute (PMI) was born.

Project management professionals are knowledgeable and competent in predictive, adaptive and hybrid development life cycles.

Iterative Life Cycle



The iterative life cycle involves repeating a series of cycles (iterations) where each iteration refines and enhances the product based on feedback and evaluations. Each iteration builds upon the previous one until the final product is achieved.

Incremental Life Cycle

The incremental approach consists of breaking down the entire development process into small and more manageable segments called increments. The incremental life cycle focuses on building a product in increments or small portions, with each increment adding functional components to the product. Each increment is a complete subset of the final product's features.

Developing a software iteratively

The iterative approach means that the final product is built through diverse iterations. An ideal example of this development method is design thinking. Therefore, the iterative model includes a series of activities, such as framing, idea brainstorming, and reflection, in a proper sequence.

Furthermore, the sequence is executed iteratively or repeatedly. This allows you to get closer to the correct, final, and desired product, which we often call a “prototype.” Once you are over with a prototype, you create the first Minimal Viable Product (MVP) to gain user feedback. The iterative model has a flexible scope and permits you to achieve customer value through iterations once the solution is delivered.

Developing a software incrementally

Concerning the incrementality definition, the approach excludes iterations. Since the final product is delivered in smaller parts, all activities, like designing, building, testing, and deployment, are carried out once. Incremental development has a fixed approach but is a great method of delivering products quickly.

Example:

E-commerce Website Development: In the first increment, a simple version of the website with basic functionalities like user registration and product listing is developed. The second increment adds the shopping cart feature. The third increment introduces payment gateway integration. Each increment is usable by itself and adds new capabilities to the product.

Agile Life Cycle

The Agile life cycle combines both iterative and incremental approaches. It emphasizes flexibility, customer collaboration, and rapid delivery of small, functional pieces of the product. Agile methodologies, such as Scrum or Kanban, are often used to manage these projects.

Example:

Mobile App Development: Consider a startup developing a new mobile app for fitness tracking. Using Agile, the team works in short sprints (typically 2-4 weeks). In the first sprint, they develop and release a basic version of the app that tracks steps and displays them in a simple interface. In subsequent sprints, they incrementally add features like calorie counting, workout logging, social sharing, and integration with wearable devices. Throughout the process, they gather user feedback and make iterative improvements, ensuring that the product continuously evolves to meet user needs.

Key Differences

Iterative: Focuses on refining and improving the product in repeated cycles.

Incremental: Focuses on adding functional components in small, complete increments.

Agile: Combines both approaches, emphasizing flexibility, customer collaboration, and rapid, incremental delivery.

Industry Example Combining All Three:

Large-Scale ERP System Development: A company developing an Enterprise Resource Planning (ERP) system might use an iterative approach to refine its core functionalities like inventory management and financial accounting. They might use an incremental approach to add modules like Human Resources and Customer Relationship Management (CRM) over time. By adopting Agile methodologies, they can deliver usable components quickly, gather customer feedback, and make continuous improvements throughout the project.

 Hybrid Life Cycle

What it is: A mix of predictive and adaptive techniques.

Best when:

- **Some parts** of the project are stable (need upfront planning).
- Others require **flexibility and feedback loops**.

Examples:

- A government project requiring compliance documentation (predictive) but incorporating digital dashboards (Agile).
- Building a PMP bootcamp — use predictive for schedule, adaptive for learner interaction.

Supportive PMO:

This type of PMO provides support, templates, and best practices for projects. It helps project managers and teams by offering resources and guidance. It's like a toolbox that helps everyone work better.

Controlling PMO:

A Controlling PMO monitors and controls projects to make sure they're on track. It might set up rules and processes to ensure consistency across projects. It's like a traffic cop, making sure everyone follows the right rules.

Directive PMO:

This type of PMO takes a more hands-on approach by directly managing projects. It might assign project managers and resources, and oversee projects from start to finish. It's like a captain steering the ship.

A Center of Excellence (CoE) is like a special team or group within a company or organization that's really good at something. It's a place where experts work together to share their knowledge, solve problems, and make sure everyone in the organization does things really well.

Think of it as a group of superhero experts who have special powers in a particular area. They're the go-to people when others need help or advice related to that specific thing.

For example, let's say a big company wants to be really good at using technology to improve their customer service. They might create a Center of Excellence for Customer Service Technology. This team would have experts who know all about the latest technology tools, how to use them, and how to make customers happy.

Organizational Project Management (OPM) is a strategy execution framework that helps organizations align their projects, programs, portfolios, and operational activities with their strategic objectives and goals. It provides a structured approach to managing projects and related activities in a way that ensures they contribute to the achievement of the organization's overall strategy.

OPM ensures that all projects, programs, and portfolios are aligned with the organization's strategic goals and objectives..

Organizational project management is like a way of doing things in a big group to make sure projects are done really well. It's like a plan that helps everyone work together smoothly to finish projects on time and with good results.

In a big organization, there are many projects happening at once, like building a new building, making a new product, or improving how things work. Organizational project management helps keep track of all these projects, make sure they're going in the right direction, and use resources wisely.

project:

A project is like a single task or job that needs to be completed. It has a clear beginning and end, and it's usually focused on creating something specific. Think of a project as a small piece of work with a set goal.

Example: Imagine building a new house. The construction of that one house is a project. It has a start date when you lay the foundation, and it has an end date when the house is finished.

Program:

A program is like a collection of related projects that are managed and coordinated together. They usually have a common goal or purpose. Programs help ensure that all the projects work well together and contribute to a bigger objective.

Example: Let's say a real estate company is building houses in a new neighborhood. They might have different projects for constructing individual houses, setting up the infrastructure (like roads and utilities), and creating recreational spaces (like parks). All these projects together make up a program to develop the entire neighborhood.

Portfolio:

A portfolio is like a group of programs, projects, or even other portfolios that an organization manages to achieve its overall goals. It's a way to see the bigger picture of all the work being done and make sure it aligns with the organization's strategy.

Example: Think of a company that not only builds houses but also develops commercial buildings, offers property management services, and invests in real estate. All these activities, including the different programs and projects under them, form a portfolio of the company's real estate endeavors.

Integration of Project Management Disciplines:

Project Management: OPM integrates traditional project management practices, ensuring that individual projects are well-planned, executed, and controlled to meet their specific objectives.

Program Management: It also encompasses program management, which involves coordinating and managing multiple related projects to achieve broader strategic goals.

Portfolio Management: OPM extends to portfolio management, which involves selecting and prioritizing the right mix of projects and programs to support the organization's strategic direction.

An organizational structure determines how the various groups and individuals within the organization interrelate. It also affects how much authority the project manager has, as well as the availability of resources and how projects are performed.

Organizational structures refer to how an organization is designed and structured to manage its projects and the relationships between various project stakeholders. The choice of organizational structure can significantly impact how projects are executed, how resources are allocated, and how decisions are made. There are several common organizational structures used in project management, each with its own advantages and disadvantages:

Functional Organization Structure:

Description: In a functional organization, employees are grouped by their areas of expertise, such as marketing, engineering, finance, etc. Project managers typically have limited authority and act as coordinators.

Advantages:

- Specialized expertise in functional areas.
- Clear career paths for employees.
- Efficient resource allocation within departments.

Disadvantages:

- Slow decision-making and project execution.
- Limited project manager authority.
- Lack of project-focused communication.

Projectized Organization Structure:

Description: In a projectized organization, project managers have full authority and control over project resources. Teams are formed around projects, and there is a clear reporting structure.

Advantages:

- Fast decision-making and project execution.
- Clear project accountability.
- Project-specific communication channels.

Disadvantages:

- Limited resource sharing across projects.
- High project management overhead.
- Potential for duplication of resources.

Matrix Organization Structure:

Description: Matrix structures combine elements of both functional and projectized organizations. Employees have dual reporting relationships to both functional managers and project managers.

- Advantages:
- Efficient resource utilization across projects.
- Improved communication and collaboration.
- Flexibility to adapt to different project needs.

Disadvantages:

- Potential for power struggles between functional and project managers.

- Complex reporting relationships.
- Conflicting priorities for team members.

Composite Organization Structure: any combination of Functional + Matrix + Project oriented

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The choice of organizational structure should align with the organization's strategic objectives, the nature of its projects, and its culture. It's also important to consider the strengths and weaknesses of each structure and whether a hybrid or customized approach may be the best fit. Effective project management within an organization often requires a balance between structure and flexibility to ensure successful project delivery.

The structural model used by an organization will have a huge impact on how project managers interact with team members and stakeholders. In many cases, a project manager will interact with people at various levels in an organization—for example, middle management, operations, strategic functions and senior management. Knowing which individuals in the organization are decision-makers or influencers and working well with them increases the probability of project success.

Project Management Principles

Because every project team operates in a unique way, alignment with principles of project management offers teams a chance to keep their practices aligned with good practices.

Using these principle statements, PMI can reflect effective management of projects across the full value delivery landscape: predictive to adaptive and everything in between.

- **Stewardship**: Project managers act with care, integrity, and in the best interests of the project and its stakeholders.
- **Team**: Creating a collaborative and positive team environment is crucial for project success.
- **Stakeholders**: Proactive engagement with all project stakeholders, understanding their needs and managing expectations, is essential.
- **Value**: Focus on delivering project outcomes that provide value to stakeholders.
- **Systems** Thinking: Consider the project as a system with interconnected parts and how they influence each other.
- **Leadership**: Provide clear direction, motivate the team, and inspire them to achieve project goals.
- **Tailoring**: Adapt project management practices to the specific needs and context of the project.
- **Quality**: Integrate quality management practices throughout the project lifecycle.
- Complexity: Acknowledge and manage the complexities inherent in projects.
- **Risk**: Proactively identify, assess, and respond to potential project risks.
- **Adaptability and Resiliency**: Be prepared to adapt to changing circumstances and bounce back from setbacks.
- **Change Management**: Develop a structured approach to manage changes to project scope, plans, or resources.
- By understanding and applying these principles, project managers can increase their chances of project success and deliver projects that meet stakeholder expectations.

The term ‘agile’ has taken over much of the conversation in project management Agile has influenced the evolution of project management in recent decades.

- It began with the ”agile mindset,” which emphasise flexibility, collaboration and Cont
  Improvement , which is informed by four values and 12 principles.
- More than 50 known forms of agile practice are used globally!

"To understand where Agile came from, let’s take a journey back to the 1990s. time when software development was done in a very strict, linear way— a kind of like building a house. This method which goes step by step by-step: you start with planning, then design, then coding, and finally testing. Waterfall worked well for some industries, like construction, mechanical where req were fixed But there was a big problem In software, requirements and technology are always changing. Developers would work for months or even years before customers saw the final product. By then, needs had often changed, and customers were left with software that was already out of date or didn’t solve their problems. This led to frustration, delays, and a lot of wasted effort.

Imagine you’re part of a team developing a mobile app, like a fitness tracker. At first, you might think you know what features users want, like tracking steps or monitoring heart rate. But what happens when you realize that users really care about tracking sleep, too? In traditional project management, adding new requirements might cause delays and frustration.

This is where Agile comes in. Agile is a way of working that breaks down the traditional process. Instead of spending months or years on a project, we work in smaller chunks, deliver pieces of the project faster, and get feedback as we go along. This keeps us flexible and adaptable."

Agile is all about flexibility, delivering in smaller parts, and continuously improving based on feedback

To fix this, in February 2001, and 17 developers gather in a cozy ski lodge on a mountain in Utah. They come from different companies and have different methods of working, but they’re united by one goal: to find a better way to develop software. They want an approach that is flexible, allows for changes, and, most importantly, focuses on what customers really want.

After days of discussion and brainstorming, these developers realize they all share a common philosophy. They don’t want to build software like an assembly line anymore. Instead, they want to work in a way that:

Emphasizes teamwork and direct communication, Welcomes change even if it happens

late in the project,

Delivers usable software regularly, so customers get value sooner, and
Prioritizes collaboration with customers over strictly following a plan.

From these shared ideas, they create the Agile Manifesto, which has four values and 12 guiding principles."

The Agile Manifesto has four core values, and each one is designed to create more flexible, responsive, and effective project management.

1. Individuals and Interactions Over Processes and Tools

Explanation: Agile values people and their collaboration over relying too heavily on rigid processes or complex tools. While tools and processes are helpful, it's the human element that truly drives success in Agile.

Example: Imagine a team developing a new virtual meeting platform. They have great tools like project management software and issue trackers, but they realize that regular face-to-face conversations (or video calls) are much more effective for brainstorming and troubleshooting. When a bug comes up, rather than waiting for a formal process, the team simply jumps on a quick call to resolve it immediately.

Takeaway: This value emphasizes that people and their collaboration drive progress. Agile teams use tools as support but prioritize direct interactions to solve problems quickly and creatively.

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2. Working Software Over Comprehensive Documentation

In Agile, delivering a functional product is more valuable than producing lengthy documentation. While documentation is still useful, the focus is on having a working product that users can start benefiting from sooner.

Example: Let's say a team is creating an app to track water intake. Instead of spending months detailing every feature and creating pages of specifications, they focus on building a simple, functional version of the app where users can log their daily water intake. They release this basic version quickly so users can start using it right away. As they receive user feedback, they add more features, like reminders and hydration goals, and keep improving the app.

Takeaway: Agile values delivering a functional product early so users can interact with it, allowing the team to improve it based on real feedback rather than perfecting endless documents.

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3. Customer Collaboration Over Contract Negotiation

Explanation: Agile values ongoing collaboration with customers instead of focusing solely on sticking to an initial contract. By keeping open communication, Agile teams can respond to customer needs and changes more effectively, ensuring the end product truly meets customer expectations.

Example: A team is hired to develop a custom e-commerce website. Initially, the contract outlines a standard website with product pages and a checkout. As they work together, the client requests some changes, like adding a loyalty points system and personalized recommendations. Instead of sticking rigidly to the contract and charging extra for every change, the team welcomes the collaboration, adjusting the website based on these ideas, which makes it more effective and satisfying for the client.

Takeaway: Agile promotes continuous collaboration with the customer, adapting to their evolving needs rather than being limited by initial contract terms.

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4. Responding to Change Over Following a Plan

Explanation: Agile values adaptability over following a strict, unchanging plan. Plans are useful, but Agile teams recognize that customer needs, market trends, and project requirements can change. Agile teams are ready to adjust their course to deliver the most value.

Example: A company is developing a fitness app with a plan focused on tracking steps and calorie counts. However, halfway through, they notice a surge in interest in mental wellness, so they decide to add some meditation features to the app. Rather than sticking rigidly to the original plan, the team adjusts to meet new market demand, making their app more relevant and appealing.

The Manifesto was expanded to include 12 principles.

Lets understand them.

1. Customer Satisfaction Through Early and Continuous Delivery of Valuable Software

2. Embrace Changing Requirements, Even Late in Development

3. Deliver Working Software Frequently

4. Collaboration Between Business Stakeholders and Developers Throughout the Project

5. Build Projects Around Motivated Individuals

6. Face-to-Face Conversation is the Most Effective Form of Communication

7. Working Software is the Primary Measure of Progress

8. Maintain a Sustainable Working Pace

9. Continuous Attention to Technical Excellence and Good Design

10. Simplicity – Maximizing the Amount of Work Not Done

11. Self-Organizing Teams Produce the Best Results

12. Regular Reflection and Adjustment for Continuous Improvement

By following these principles and embracing the core values, project teams can leverage the Agile approach to deliver software that meets customer needs, adapts to change, and fosters a more collaborative and productive development

Think of "doing agile" as **buying a sports car**. You have the sleek design and powerful engine (the tools and practices), but it doesn't guarantee you'll win the race.

"Being agile" is like **knowing how to drive the sports car expertly**. You understand its capabilities, can maneuver it skillfully, and adapt your driving to different road conditions (changing project demands).

Doing Agile:

Focuses on implementing the practices and tools of Agile methodologies. This includes things like:

- Using sprints (short development cycles)
- Holding daily stand-up meetings
- Utilizing Kanban boards for task visualization
- Working with user stories and backlog prioritization

Being Agile:

Goes beyond just the tools and embraces the core values and principles of Agile. This includes:

- **Individuals and interactions over processes and tools:** Prioritizing collaboration and communication within teams.
- **Working software over comprehensive documentation:** Focusing on delivering working features and gathering feedback early.
- **Customer collaboration over contract negotiation:** Working closely with customers to understand their needs and adapt accordingly.

- **Responding to change over following a plan:** Embracing flexibility and adapting to changing requirements as they arise.