



# **INFO 6245**

# **Planning &**

# **Managing**

# **Information**

# **Systems**

# **Development**

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Module 1: Class Overview



# Introductions

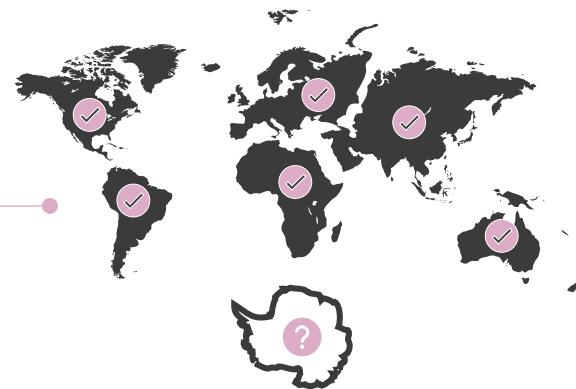
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# Shirali Patel



- BS Electrical Engineering
- MS Engineering Management
- D.Eng. Engineering Management

ILLINOIS TECH



“ ”

If you do not step forward you will  
always remain where you are.

# About me

## Meghna Havalgi

Teaching Assistant  
INFO6245 Planning & Managing Info Systems Dev Fall 2025

Bachelor of Business Administration, Hyderabad, India

 Deloitte - Financial Analyst, Hyderabad, India

 Morgan Stanley - Quantitative Research Co-op, New York, NY

 Master of Science in Information Systems '25, Boston, MA



Beyond the classroom, you'll find me lost in books, painting, hiking, diving into data, and exploring the mysteries of space.



You can reach out to me:

- On Teams
- Send an email to [havalgi.m@northeastern.edu](mailto:havalgi.m@northeastern.edu)
- Join TA hours on Tuesdays and Saturdays

# Classroom Introductions



Introduce Yourself: Name, Where you're from, hobbies, A Fun Fact!

What are your expectations from the class?



I expect a lot of in-class interaction. Please introduce yourself before you ask questions or respond to mine.



My goal is to match your name to your face so we can form a connection!

# Course Overview

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# Course Objectives

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**Taking Responsibility:** Act as a professional project manager, follow project management rules, make ethical decisions, and keep learning to stay good at it.

**Effective Communication:** Use good writing, talking, and body language skills, use words that people in the industry understand, write different project documents, handle project messages well, and use technology correctly.

**People Skills:** Use social skills to lead and organize a project team, use good strategies to work well with others, solve problems when people disagree, and make sure the team finishes the project successfully.

**Respecting Roles:** Understand and appreciate the jobs of the project manager, sponsor, and customer.

**Following Good Practices:** Use the right methods and best practices in project management, including the special words used, how the organization works, day-to-day tasks, long-term planning, project groups, project stages, and how to manage projects over time.

**Project Processes:** Use project management steps like starting a project, planning it, doing the work, keeping an eye on it, making changes if needed, and finishing it, while managing all the parts of the project.

**Effective Project Management:** Handle projects well, including making sure the project stays on track, is done on time, doesn't cost too much, and is of good quality, all while meeting the project's goals.

**Getting What's Needed:** Use the right steps to buy things the project needs from outside the organization.

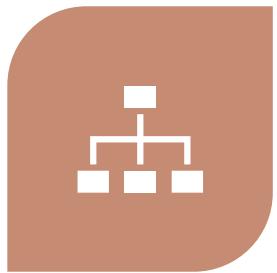
**Managing Risk:** Identify, study, and deal with things that might go wrong in the project.

**Handling Stakeholders:** Understand and handle the needs and involvement of people who care about the project to make sure it succeeds.

**Using Project Management Wisely:** Use project management skills smartly in different organizations and countries.

# Project Management Focus

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PROJECT  
MANAGEMENT  
PROFESSIONAL (PMP)



PMBOK GUIDE:  
THEORETICAL  
KNOWLEDGE



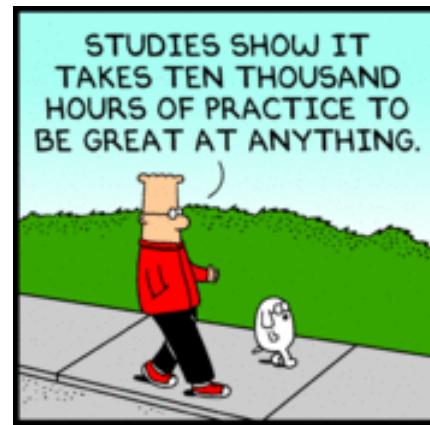
ASSIGNMENTS:  
CRITICAL THINKING



CLASS EXERCISES:  
PRACTICAL  
APPLICATIONS

# PMP Max

Goal is to build up experience and risk appetite; not just learn the theoretical knowledge



# Reading Materials

- TEXTBOOK: Kathy Schwalbe, “Information Technology Project Management.9th Edition. (2019)
- A Guide to the Project Management Body of Knowledge (PMBOK® Guide)—Seventh Edition
- Agile Practice Guide by Project Management Institute, published by Project Management Institute
- Case Studies: As assigned.

# Class Communications: Canvas

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**Announcements:** Posted on Canvas weekly and to share any time-sensitive updates.



**Q&A:** Use the discussion thread “General Course Q&A” for any content and assignment related questions.



**Email:**  
[shi.patel@northeastern.edu](mailto:shi.patel@northeastern.edu).  
Usual response within a day.



**Office Hours:** Available for consultation over the phone or through videoconference. Please email me to schedule an appointment.

# Grading

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Class Participation:	13%	(13 weeks, 1% each for participation, not just attendance)
Homework Assignments:	50%	(10 Assignments, 5% each)
Class Presentation:	15%	(Students will present their class project as part of their team)
Peer Review:	2%	(Based on teammates' evaluation of contribution in class project)
Final Exam:	20%	(Multiple Choice; Quantitatively Graded)

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# Late Work Policy

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Each Assignment is worth 5% of final grade



Assignment is due within 1 week, before the next class



Assignments submitted after their deadlines will result in a deduction of credit (-1% for one-day delay, and -2% for further delay)



No acceptance after assignment is 1 week overdue

# Evaluation Standards

Final Percentage will be rounded up. For e.g., 83.96% will be considered as 84% and get a B grade, or 89.92% will be considered as 89.9% and get a B+ grade.

A	95 – 100%	B	84 – 86.9%	C	74 – 76.9%
A-	90 – 94.9%	B-	80 – 83.9%	C-	70 – 73.9%
B+	87 – 89.9%	C+	77 – 79.9%	F	69.9% & below



# Course Syllabus

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# September Modules

Class	Date	Topic	Discussion Points	In-Class Exercises	Assignment
1	9/05/2025	Introduction	<ul style="list-style-type: none"><li>• Class Syllabus</li><li>• Class Expectations</li><li>• Intro to Project Management</li><li>• Project, Program, &amp; Portfolio</li><li>• Project vs Product Management</li><li>• IT Project Manager's Role &amp; Skills</li><li>• IT/IS PM Profession</li></ul>		Read Chapters 1 & 2
2	9/12/2025	Systems View Systems Approach	<ul style="list-style-type: none"><li>• Systems View</li><li>• Project Process Groups</li><li>• <i>Simulated Project Synopsis for in-class exercises</i></li></ul>	EX: Form teams and brainstorm project ideas for in-class exercises	Read Chapter 3 & 4
3	9/19/2025	Integration	<ul style="list-style-type: none"><li>• Strategic Planning</li><li>• Project Selection</li><li>• Project Charter &amp; Management Plan</li><li>• Integrated Change Control</li></ul>	EX: Project Selection & Charter	Read Chapter 5  ASSN#1: Healthcare.gov Project Case Study
4	9/26/2025	Scope	<ul style="list-style-type: none"><li>• Requirements Collection</li><li>• Scope Management</li><li>• Development Approach Considerations</li></ul>	EX: Work Breakdown Structure	Read Chapter 6  ASSN#2: NHS NPfIT Project Case Study

# October Modules

Class	Date	Topic	Discussion Points	In-Class Exercises	Assignment
5	10/3/2025	Schedule	<ul style="list-style-type: none"><li>• Schedule Management</li><li>• Gantt Charts</li><li>• Critical Path</li><li>• Agile Schedule Management</li></ul>	EX: Gantt Chart	<p>Read Chapter 7</p> <p>ASSN#3: FBI VCF Case Study</p>
6	10/10/2025	Cost	<ul style="list-style-type: none"><li>• Principles of Cost Management</li><li>• Estimating Costs</li><li>• Determining Budget</li><li>• Controlling Costs</li></ul>	EX: Budgetary Estimate	<p>Read Chapter 8</p> <p>ASSN#4: Denver Airport Baggage System Case Study</p>
7	10/17/2025	Quality	<ul style="list-style-type: none"><li>• Planning Quality Management</li><li>• Managing Quality</li><li>• Controlling Quality</li><li>• Improving IT Project Quality</li></ul>	EX: Test Cases	<p>Read Chapter 9</p> <p>ASSN#5: iPhone 4 Antenna Gate Issue</p>
8	10/24/2025	Resources	<ul style="list-style-type: none"><li>• Managing and Leading People</li><li>• Resource Management Plan</li><li>• Developing the Project Team</li><li>• Managing Project Teams</li></ul>	EX: Team Org Chart & RACI	<p>Read Chapter 10</p> <p>ASSN#6: American Airlines/US Airways Merger Case Study</p>

# November Modules

Class	Date	Topic	Discussion Points	In-Class Exercises	Assignment
9	10/31/2025	Communications	<ul style="list-style-type: none"><li>• Keys to good communications</li><li>• Planning communications Management</li><li>• Managing communications</li><li>• Monitoring communications</li></ul>	EX: Stakeholder Communications Plan	Read Chapter 11 ASSN#7: Boeing 737 MAX Project Case Study
10	11/07/2025	Risk	<ul style="list-style-type: none"><li>• Risk Management Plan</li><li>• Identifying Risks</li><li>• Risk Analysis</li><li>• Risk Responses</li></ul>	EX: SWOT Analysis	Read Chapter 12 ASSN#8: Australian Census System Case Study
11	11/14/2025	Procurement	<ul style="list-style-type: none"><li>• Planning Procurement Management</li><li>• Conducting Procurements</li><li>• Controlling Procurements</li></ul>	EX: Make-Buy Analysis	Read Chapter 13 ASSN#9: Oracle ERP Implementation Case Study
12	11/21/2025	Stakeholders	<ul style="list-style-type: none"><li>• Recognizing Project Stakeholders</li><li>• Stakeholder Engagement</li><li>• Managing Stakeholders</li><li>• Monitoring Stakeholders</li></ul>	EX: Final Project Prep	Review PMBOK 7 <sup>th</sup> Edition ASSN#10:
	11/28/2024	Holiday	<ul style="list-style-type: none"><li>• Fall Break</li></ul>		

# December Modules

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Class	Date	Topic	Discussion Points	In-Class Exercises	Assignment
13	12/5/2025	<b>Project Presentations</b>	<ul style="list-style-type: none"><li>• PMBOK 7<sup>th</sup> Edition</li><li>• Review for Exam Prep</li></ul>	EX: Project Presentations	Review for Exam Prep
14	12/12/2025	<b>Final Exam</b>	<ul style="list-style-type: none"><li>• Full Syllabus</li><li>• Exam will be available from Monday, 12/09 to Friday 12/12, with online proctoring.</li></ul>		

# Class Expectations

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# Homework Assignments

- Homework papers must include original work, with summary and flow of thought and information, instead of direct copy of text.
- Use citations for any information source, whether it is a quote, or fact/opinion.
- Use APA style: [Student Paper Setup Guide, APA Style 7th Edition](#)
- No plagiarizing!!! Do not use papers from other students (previous or current). Do not copy and paste text directly from websites, blogs, or published papers.
- Use Turnitin before submission. If more than 20% similarity is discovered, go back and edit your paper.

# Use of AI

- **Exploring AI Tools:** I encourage you to explore and thoughtfully use AI tools (like Copilot, ChatGPT, Grammarly, or others) to support your learning, research, and assignment writing.
- **AI Assistance:** These tools can help you brainstorm ideas, clarify concepts, improve writing, and even assist with coding or data analysis.
- **Academic Integrity:** You are responsible for the originality of your work. Using AI to generate content without proper attribution may be considered plagiarism. Always cite sources—including AI tools—when they contribute to your work.
- **Critical Thinking:** AI can be helpful, but it's not always accurate or nuanced. Don't rely on it blindly. Use your judgment, verify facts, and engage with the material yourself.
- **Learning Goals:** The purpose of assignments is to help you grow. Over-reliance on AI may hinder your development. Use it as a supplement, not a substitute.
- **Transparency:** If you use AI tools in your work, please include a brief note explaining how you used them. This helps maintain transparency and allows me to support your learning more effectively.
- **Consult:** If you're ever unsure about whether a particular use of AI is appropriate, feel free to ask me!

# Academic Integrity

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- Original work & submissions only
- Citations required for information source
- No plagiarizing allowed; Automatic F grade
- Use Turnitin for each assignment
- Use of AI Tools is encouraged as a supplement, not substitution



# Professionalism



Respect and Kindness



Speak up and support your viewpoint



Listen to what others have to say



Keep discussions focused on topics at hand



Minimal use of technology other than for classwork



Teamwork means equal dedication and effort

# Attendance & Participation

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Read the assigned textbook chapter(S) before class



Come to class prepared and be ready for discussions



Active participation in class discussions is mandatory



Notify in advance if there is an emergency



Catch up to coursework when absent



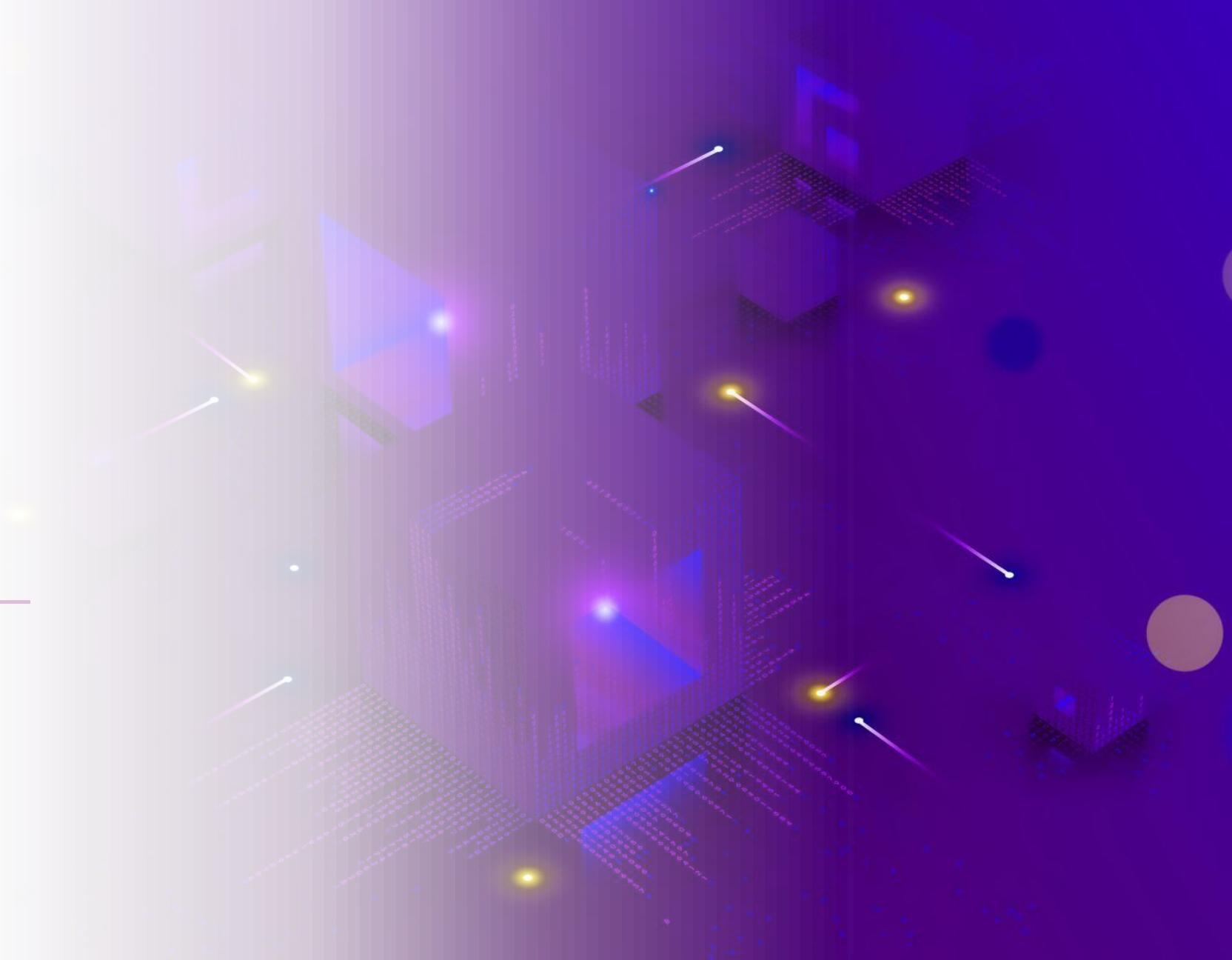
Work with the TA to address missing materials



# Project Management

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For the IT/IS Industry





# What is a Project?

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A project has a unique purpose.

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A project is temporary.

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A project drives change and enables value creation.

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A project is developed using progressive elaboration.

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A project requires resources, often from various areas.

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A project should have a primary customer or sponsor.

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A project involves uncertainty.

# Projects vs. Operations

Projects are temporary and aim to create something new or bring about change, while operations are ongoing activities that maintain and sustain the business.

## Projects

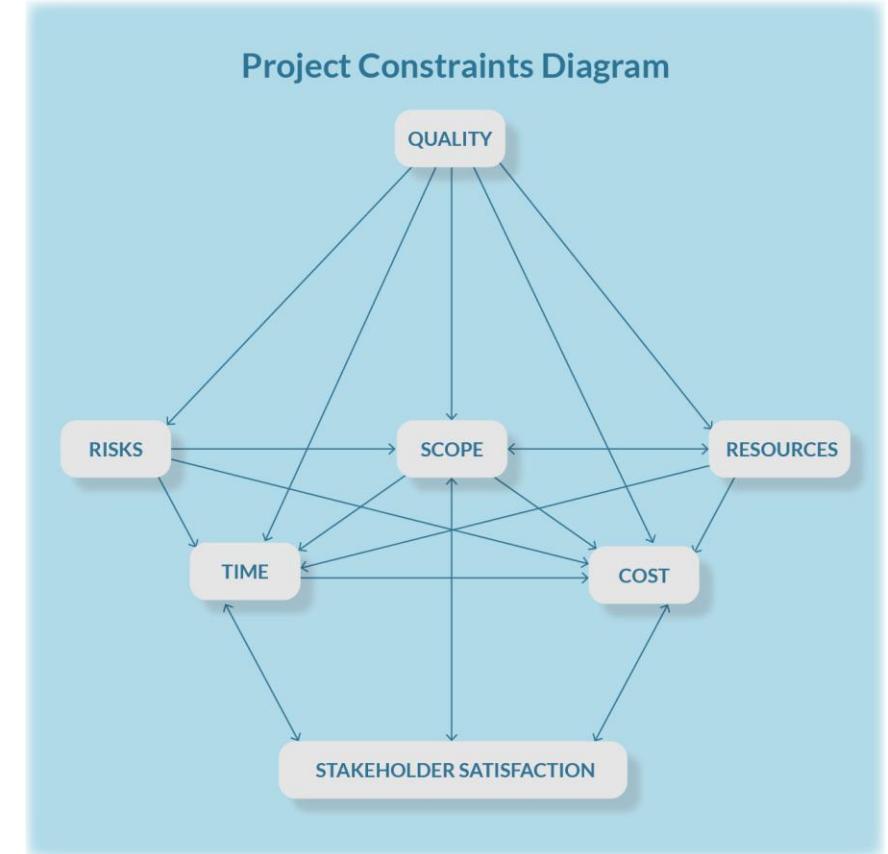
- **Developing a New Software Application:** This involves creating a unique product with a defined start and end date.
- **Constructing a Building:** A temporary endeavor to create a new structure.
- **Launching a Marketing Campaign:** A specific initiative aimed at promoting a product or service within a set timeframe.
- **Organizing a Conference:** Planning and executing an event with a clear beginning and end.
- **Implementing a New IT System:** Introducing a new technology solution to improve business processes.

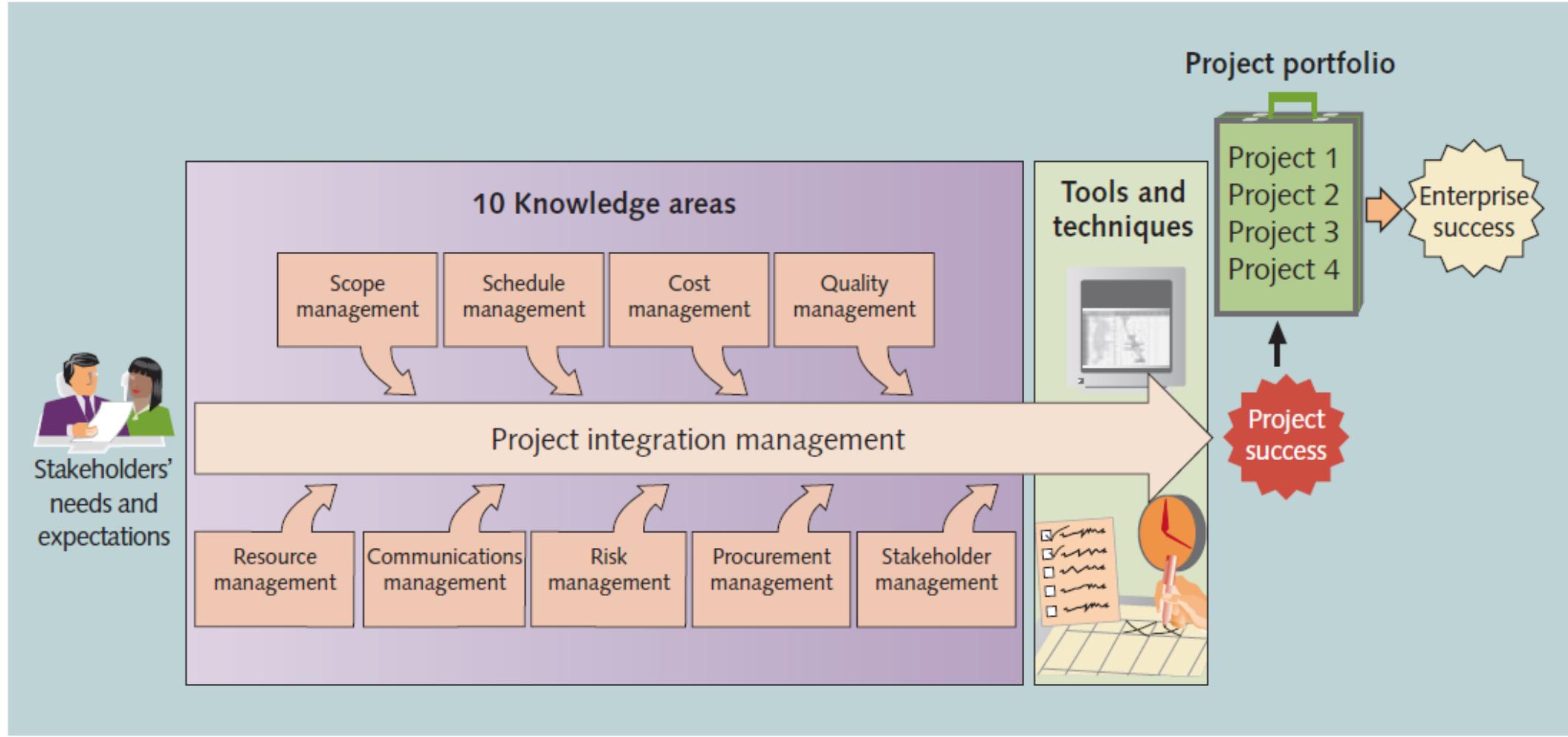
## Operations

- **Customer Service:** Ongoing activities to support and assist customers.
- **Manufacturing:** Continuous production of goods to meet market demand.
- **Accounting:** Regular financial activities such as bookkeeping, payroll, and tax filing.
- **Maintenance:** Routine upkeep of equipment and facilities to ensure smooth operations.
- **Human Resources:** Ongoing tasks like recruitment, training, and employee management.

# Project Constraints

- **Scope:** Scope defines what work will be done as part of the project and what deliverables are expected. It sets the boundaries for the project and ensures that all stakeholders have a clear understanding of what the project will achieve. Managing scope involves ensuring that all project requirements are met without unnecessary additions that could lead to scope creep.
- **Time:** Time constraints refer to the project's schedule and deadlines. This includes the overall project timeline, as well as the deadlines for individual tasks and milestones. Effective time management ensures that the project is completed on schedule, which often involves tracking progress and making adjustments as needed.
- **Cost:** Cost constraints involve the project's budget. This includes all financial resources required to complete the project, such as labor, materials, and overhead costs. Managing costs involves budgeting, monitoring expenditures, and controlling costs to ensure the project stays within its financial limits.
- **Quality:** Quality constraints ensure that the project's deliverables meet the required standards and satisfy stakeholder expectations. This involves setting quality criteria, conducting quality assurance and control activities, and making sure that the final product is fit for purpose.
- **Resources:** Resource constraints refer to the availability of necessary resources, including human resources, equipment, and materials. Effective resource management ensures that the right resources are available at the right time to complete the project tasks.
- **Risks:** Risk constraints involve identifying, assessing, and managing potential risks that could impact the project. This includes both positive risks (opportunities) and negative risks (threats). Effective risk management helps in mitigating potential issues that could derail the project.
- **Stakeholder Satisfaction:** Ensuring that all stakeholders are satisfied with the project's progress and outcomes is crucial. This involves regular communication, managing expectations, and addressing any concerns that stakeholders may have.





# PM Knowledge Areas

# Project Success

 The project met scope, time, and cost goals.

 The project satisfied the customer/sponsor.

 The results of the project met its main objective

Achieving specific goals within scope, time, cost, and quality constraints

Delivering the expected product or service

Completing the project on schedule and within budget

Meeting defined quality standards

Ensuring stakeholder satisfaction

Aligning with broader business objectives

Effective risk management and resource allocation

Delivering lasting value to the organization



# What helps projects succeed?

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- Adequate funding
- Staff expertise
- Stakeholders' Engagement

## Factors of Success

Executive sponsorship

Emotional maturity

User involvement

Optimization

Skilled resources

Agile process

Modest execution

Project management expertise

Clear business objectives

Source: The Standish Group, "CHAOS Manifesto 2015" (2015).

# Improving Project Performance

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Use an integrated toolbox



Grow project leaders



Develop a streamlined project delivery process



Measure project health using metrics

# Project, Programs, & Portfolios



	<b>Projects</b>	<b>Programs</b>	<b>Portfolios</b>
<b>Definition</b>	A project is a temporary endeavor undertaken to create a unique product, service, or result.	A program is a group of related projects, subsidiary programs, and program activities that are managed in a coordinated way to obtain benefits not available from managing them individually.	A portfolio is a collection of projects, programs, subsidiary portfolios, and operations managed as a group to achieve strategic objectives.
<b>Management</b>	Project managers manage the project team to meet the project objectives.	Programs are managed by program managers who ensure that program benefits are delivered as expected, by coordinating the activities of a program's components.	Portfolio managers may manage or coordinate portfolio management staff, or program and project staff that may have reporting responsibilities into the aggregate portfolio.
<b>Monitoring</b>	Project managers monitor and control the work of producing the products, services, or results that the project was undertaken to produce.	Program managers monitor the progress of program components to ensure that the overall goals, schedules, budget, and benefits of the program are met.	Portfolio managers monitor strategic changes and aggregate resource allocation, performance results, and risk of the portfolio.
<b>Success</b>	Success is measured by product and project quality, timeliness, budget compliance, and degree of customer satisfaction.	A program's success is measured by the program's ability to deliver its intended benefits to an organization, and by the program's efficiency and effectiveness in delivering those benefits.	Success is measured in terms of the aggregate investment performance and benefit realization of the portfolio.

Source: Project Management Institute, Inc., *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Sixth Edition (2017).

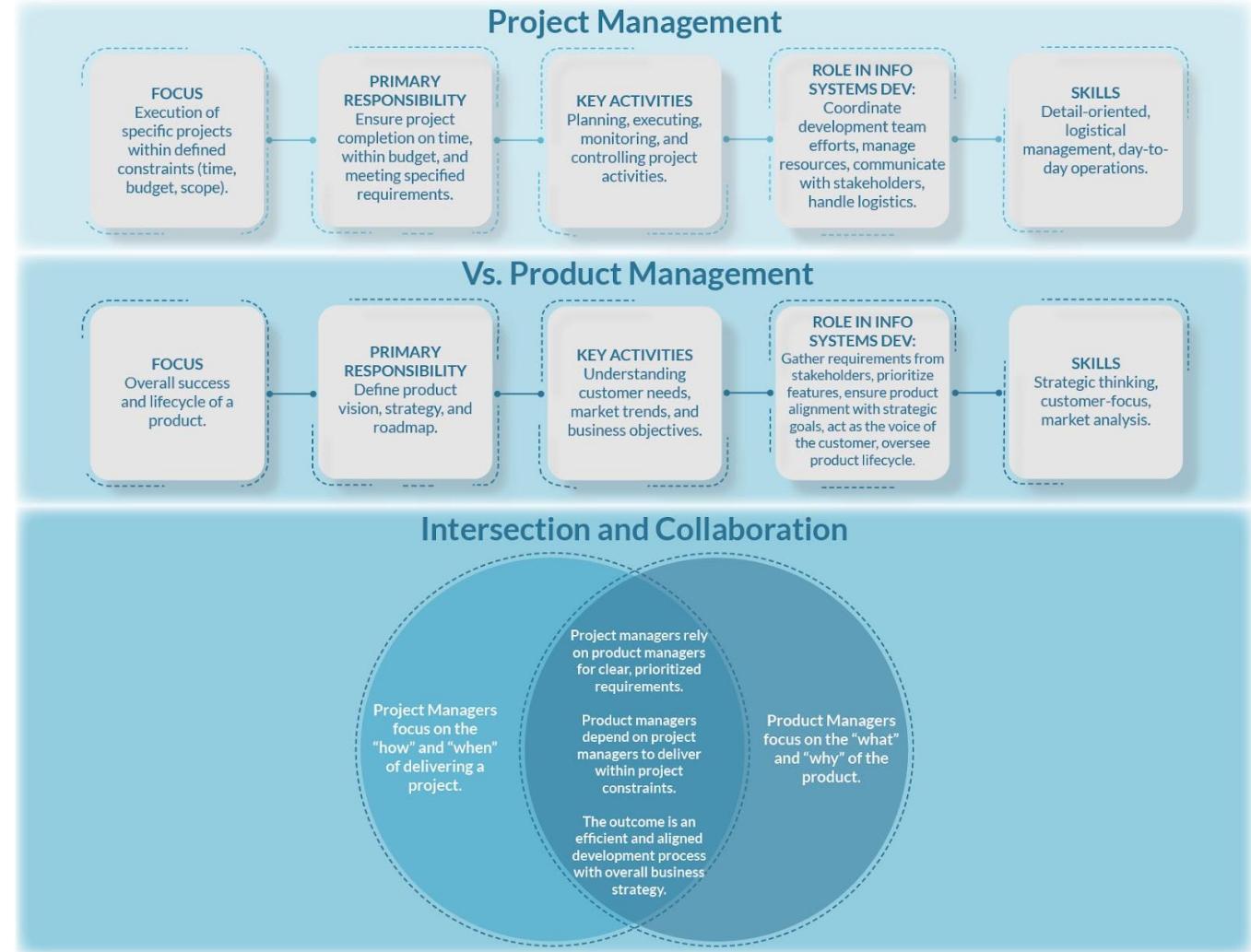


# Product Manager

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Vs. Project Manager

# Project vs. Product Management



# PM-PM Collaboration

Aspect	Project Manager	Product Manager	Collaboration
Focus	Execution of a specific project	Overall lifecycle of a product	Align on product vision and goals
Responsibilities	- Scope Management - Time Management - Cost Management - Quality Management - Risk Management - Communication	- Vision and Strategy - Market Research - Product Roadmap - Feature Definition - Stakeholder Management - Customer Feedback	Work together on roadmap and detailed project plan
Goal	Successfully complete the project on time, within budget, and to required quality standards	Deliver a product that meets user needs, achieves business objectives, and provides market value	Ensure necessary resources are available and optimally allocated
Scope	Specific projects with defined start and end dates	Entire lifecycle of a product	Engage with stakeholders to gather feedback and manage expectations
Timeframe	Project duration	Long-term perspective on product development and success	Identify and mitigate risks
Outcome	Completion of projects	Successful products that meet customer needs and business goals	Regularly review progress and make necessary adjustments
Resource Management	Budgeting and controlling project costs	Planning the product's development and release schedule	Ensure the final product meets quality standards and satisfies customer needs
Quality Assurance	Ensuring project meets required standards	Ensuring product features and usability meet customer needs	Collaborate to implement quality control measures and ensure deliverables meet quality criteria
Risk Management	Identifying and mitigating project risks	Managing product-related risks	Work together to identify potential risks and develop mitigation strategies
Communication	Keeping stakeholders informed and engaged	Collaborating with cross-functional teams	Maintain open and consistent communication to ensure alignment and address issues promptly
Monitoring and Adjusting	Tracking project progress against the plan	Ensuring product development aligns with strategic goals	Regularly review progress, track performance, and make necessary adjustments to stay on course

## PRODUCT MANAGER

vs

## PROJECT MANAGER

### Responsibilities



#### Idea creation

Before a product is approved for development, the product manager must assess its market capability.



#### Strategy development

After developing an idea, the next step is to come up with a working strategy.



#### Profit-loss analysis

Part of the market research and competitive analysis involves assessing the product's potential in the market.



#### Communication

Product managers are in charge of maintaining clear communication channels between upper management and the other facets of the company.



#### Documentation

The PDM covers the details of every meeting while monitoring the product backlog.



#### Budget allocation

The overall product budget is allocated to each project manager, depending on their role in the development.



#### Team organization

The project manager selects the team to work on the project. They also determine the number of resources needed by every division within the team.



#### Planning

PMs allocate tasks to every participant in the project according to their expertise and skill level.



#### Periodic progress updates

Project managers must monitor the success rate of every human resource under their purview.



#### Conflict resolution

A project manager is in charge of resolving any conflict in terms of ideas and strategies within their team.

# PM vs. PM

## PRODUCT MANAGER

vs

## PROJECT MANAGER

### Skills for success



#### Innovation

Every product manager must have innovative skills to generate industry-leading ideas.



#### Industry-savvy

Project managers need extensive know-how in their field in order to curate the development process effectively.



#### Communication

Excellent communication skills to maintain a steady flow of ideas and information between departments.



#### Time management

A project manager is responsible for delivering the project within a specified deadline.



#### Marketing

Product managers can also market the product.



#### Goal-orientedness

Every PM must focus on delivering the ultimate quality.

# PM vs. PM

# PM Role & Skills

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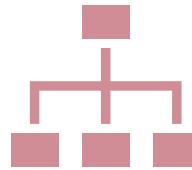
# Types of PM Jobs

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## **Project manager for a consulting firm:**

Plans, schedules, and controls activities to fulfill identified objectives applying technical, theoretical, and managerial skills to satisfy project requirements. Coordinates and integrates team and individual efforts and builds positive professional relationships with clients and associates.



## **Project manager for a computer systems firm:**

Works independently within established practices to assist in the development and implementation process of projects involving departmental, vendor relationships, and/or cross-functional teams. Coordinates with internal/external clients to gather business requirements and coordinate project plans. Monitor projects from initiation through delivery ensuring completion of the project on schedule.



## **IT project manager for a nonprofit consulting firm:**

Responsibilities include business analysis, requirements gathering, project planning, budget estimating, development, testing, and implementation. Responsible for working with various resource providers to ensure that development is completed in a timely, high-quality, and cost-effective manner.

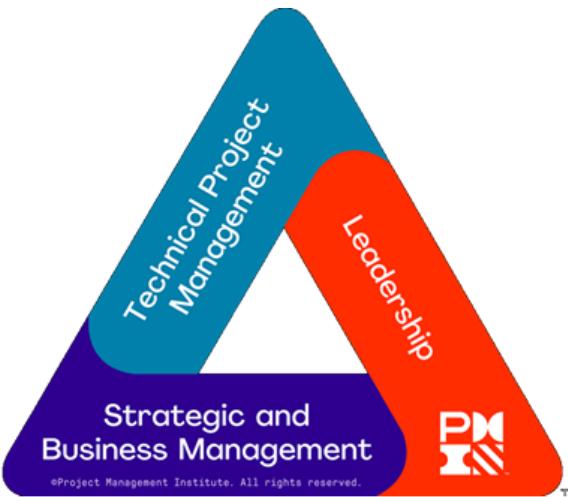
# PM Roles and Responsibilities

What do you think is a Project Manager's main responsibility?

## Project Manager Responsibilities



# PM Skills



PMI's Talent Triangle™

**Strategic and Business management**

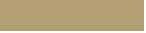
1. Benefits management and realization
2. Business acumen
3. Business models and structures
4. Competitive analysis
5. Customer relationship and satisfaction
6. Industry knowledge and standards
7. Legal and regulatory compliance
8. Market awareness and conditions
9. Operational functions (e.g. finance, marketing)
10. Strategic planning, analysis, alignment

**Project Technical Management**

1. Agile practices
2. Data gathering and modeling
3. Earned value management
4. Governance (project, program, portfolio)
5. Lifecycle management (project, program, portfolio, product)
6. Requirements management and traceability
7. Risk management
8. Schedule management
9. Scope management (project, program, portfolio, product)
10. Time, budget, and cost estimation

**Leadership**

1. Brainstorming
2. Coaching and mentoring
3. Conflict management
4. Emotional intelligence
5. Influencing
6. Interpersonal skills
7. Active listening
8. Negotiation
9. Problem Solving
10. Team building



# Unique IT PM Skills

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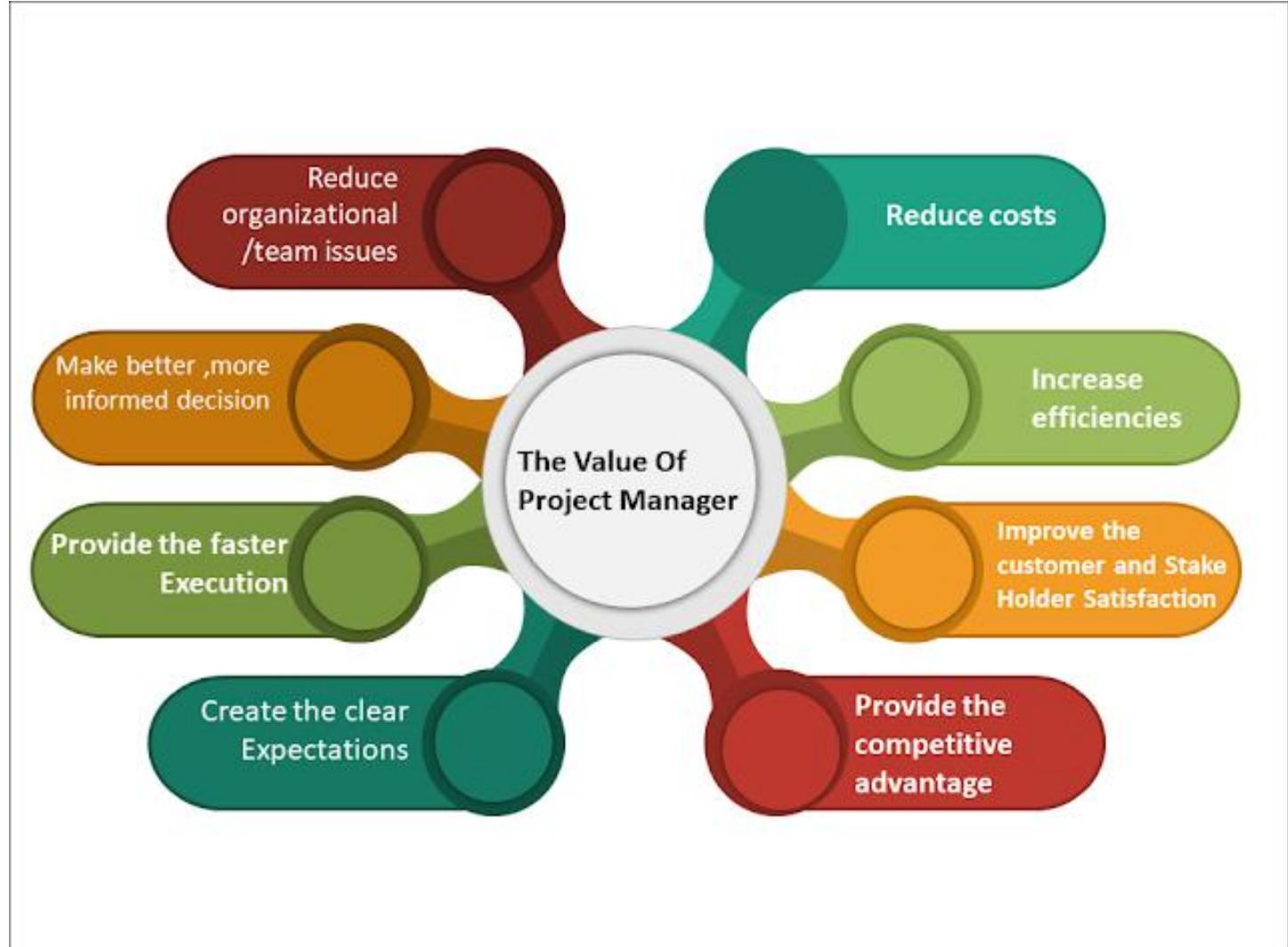
Knowledge	<p>Know how tech products get built</p> <ul style="list-style-type: none"><li>• Curious about new technologies</li><li>• Understands concepts and technical terminologies</li><li>• Realistic about what current team can accomplish</li></ul>
Understanding	<p>Identify technical risks</p> <ul style="list-style-type: none"><li>• Find risks, inefficiencies, and technical debt</li><li>• Be curious about understanding the product and the system</li><li>• Ask questions about features, complexities, and issues</li></ul>
Decisions	<p>Make smarter technical decisions</p> <ul style="list-style-type: none"><li>• Data-driven decisions</li><li>• Balance the technical performance with the schedule and cost constraints</li></ul>

# PM Soft Skills

What soft skills do we need to be a successful Project Manager?



# Value of a PM





# PM Career Path

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For IT/IS Industry



# Statistics



# TPM Career Path



Senior Level Management (8 years of experience or more)	
Position	Responsibilities
Enterprise Architect	Designing and monitoring the information systems of the entire organisation
Chief Technology Officer	Designing an organisation's strategy for all technical operations

Junior Level Management (3-4 years of experience)	
Position	Responsibilities
Project Manager/Scrum Master	Oversee and coordinate technical projects
Software Developer	Oversee an organisation's goals
Technical Business Analyst/AI Translator	Create software solutions to align information systems with business operations

Entry-Level IT Jobs (0-2 years of experience)	
Position	Responsibilities
Technical Support Representative	Assist customers with computer-related concerns
Software Developer	Use coding and programming to create software

Mid-Level Management (4-8 years of experience)	
Position	Responsibilities
Program Director	Set criteria and goals for a company program
Business Architect	Design business models, strategies and metrics

Mid-Level IT Jobs (2-3 years of experience)	
Position	Responsibilities
Systems Analyst	Recommend data-driven solutions to optimise information system problems
Database Administrator	Oversee and monitor the databases of an organisation

i am a  
**PROJECT  
MANAGER**  
TO SAVE TIME  
let's just assume  
**I'M ALWAYS  
RIGHT**

Project Manager  
because  
**MIRACLE  
WORKER**  
isn't an official job  
title

Life of a  
**PROJECT  
MANAGER**  
Enough Time  
X X  
Enough Plans  
✓ Daily Dumpster Fire

Everyone makes  
**Mistakes**  
except  
**PROJECT  
MANAGERS**  
they are  
★ **perfect** ★

**Project  
Manager**

noun. [pruh-jekt man-i-jer]  
someone who solves a problem  
you didn't know you had in a  
way you don't understand  
See also wizard, magician

**Project Manager:**  
A Person who think  
9 women can  
deliver a baby  
In One Month

**PROJECT  
MANAGER**  
Turning CHAOS Into  
Order, One Task At A Time ✓

YES, I AM A  
**PROJECT  
MANAGER**  
OF COURSE  
I TALK TO MYSELF  
WHEN I WORK  
SOMETIMES I NEED  
**EXPERT  
ADVICE**

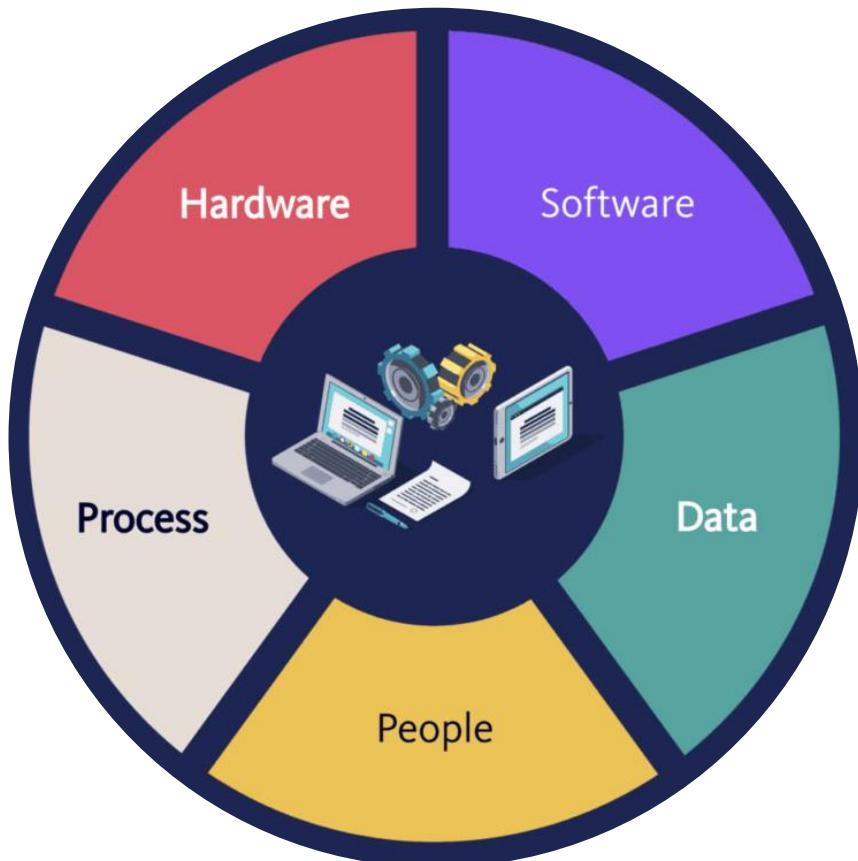


# Information Systems Development

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# IS Components



## Hardware

The hardware aspect of an information system is the technology you can touch. These are the physical aspects of technology. Computers, tablets, mobile phones, disk drives, and more are all examples of information system hardware.

## Software

Software builds directly upon the hardware of an information system. In fact, software is a set of instructions that tells hardware what to do. And unlike hardware, software is not tangible.

## Data

You can think of data as a collection of facts and information. Like software, data is also intangible. By itself, data is not particularly useful. However, aggregated, indexed and organized data is a powerful tool for your organization.

## People

From the front-line help desk workers all the way up to the Chief Information Officer (CIO), all people involved with the information system are an essential element that must not be overlooked because they make the technology useful in a practical sense.

## Process

Information systems are becoming more and more integrated with the processes of an organization. This integration can bring more productivity and better control to those processes. However, simply automating activities using technology is not enough.

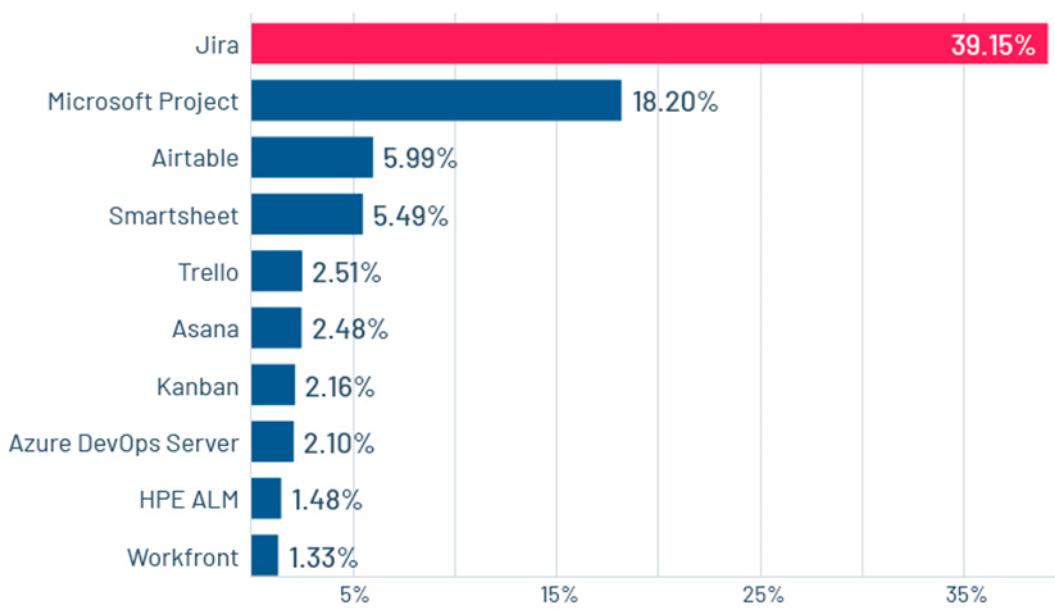


## Management Information Systems

- The goal of MIS is to provide decision-makers with accurate, timely, and relevant information that they can use to make informed decisions.
- MIS is a combination of hardware, software, databases, and people that work together to collect, process, and disseminate information.
- The hardware and software components of an MIS are typically referred to as information technology (IT).

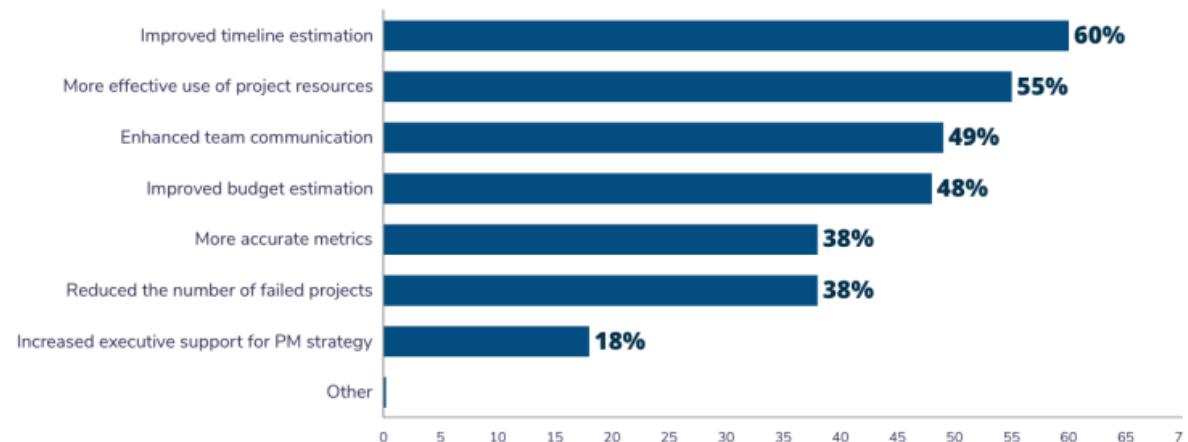
# PM Software Tools

## Market Share of the Leading Project Management Software



Source: Datanyze

## Benefits experienced from using a PM tool



Source: Capterra Project Management User Survey 2021  
Q: Which of the following benefits has your business experienced as a result of using a project management tool? Select all that apply.  
n: 422



Questions?



# Team Project Topic

# Team Formation

- Prof will randomly breakout the class into Teams of 3-4 students.
- Teams Breakout Rooms
- As a Team:
  - Add your name to one of the teams in the “People” tab on the canvas portal
  - Change the name of your project team to what you choose as a group



# Project Topic

- **Activity**
  - Choose a simulated project topic that can be used as part of class activities throughout the semester.
  - In the next class, each team will present their project topic.
  - You can use any format (word, ppt, oral, etc).
- **Guidelines**
  - Choose a topic within bounds of the IT/IS Field (related to your degree).
  - Make sure that the project is simple and achievable.
  - Team can choose a sub-project within a larger development effort, or a new project, or a startup idea.  
Anything goes!

# Framing the Project

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Who are the sponsors? What are their expectations?

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What problem are you solving? What gap are you addressing? What need are you fulfilling?

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Who are the customers/consumers/end-users? What are their requirements?

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Is it a product or a service? What exactly are you developing?

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How long will the development take?

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What is the end-goal of your project?

# Examples

- Develop an app – pick any app in the market and create a competitor app
  - E.g. Instacart grocery delivery, Robin room booking, Mint expense tracking, Weather app, diet planner, game app, bandwidth monitor, etc.
- Network Connectivity
  - IOT, Smart home, GPS tracking system, HW dependent (fitness tracker, etc).
- Database
  - Migration, Collocation, Structured Data, etc.