1.	Chapter 1	An Introduction to Project, Program, and Portfolio Management		
	1.1. Introduction			
	1.2. What Is			
		mples of Projects		
		ect Attributes		
	1.2.3. Proj	ect Constraints		
	1.3. What Is	1.3. What Is Project Management?		
	1.3.1. Proj	1.3.1. Project Management Framework (PMBOK® Guide- Sixth Edition)		
	-	1.3.2. Project Stakeholders		
		ect Management Process Groups and Knowledge Areas		
		1.3.4. Project Management Tools and Techniques		
	1.3.5. Project Success			
	1.3.6. Project Management Framework (PMBOK® Guide- Seventh Edition) 1.3.6.1. Project Management Principles			
		1.3.6.2. Project Management Principles 1.3.6.2. Project Performance Domains		
	1.3.6.3	B. Tailoring		
		4. Models, Methods, and Artifacts		
	•	n and Project Portfolio Management		
	1.4.1. Prog			
		ect Portfolio Management		
	1.5. Agile			
	1.5.1. Wha			
		at is an Agile Mindset?		
		the Difference Between Predictive, Agile, and Hybrid Project Management?		
	-	1.7. The Project Management Profession		
		gested Skills for Project Managers Talant Triangle® and the Importance of Leadership Skills		
		Talent Triangle® and the Importance of Leadership Skills ect Management Certifications		
	1.7.3. Project Management Certifications 1.7.4. Ethics in Project Management			
	1.7.5. Project Management Careers			
	-	1.7.6. Project Management Software		
	1.8. Chapter	1.8. Chapter Summary		
	1.9. Quick Q	uiz		
		ck Quiz Answers		
		Discussion Questions		
		xercises		
		eam Projects		
		Yey Terms		
		ind Notes		
	1.14. E	nd Notes		
2	Chanter 2	Project, Program, and Portfolio Selection42		
۷.				
	2.1. Aligning Projects with Business Strategy			
	2.1.1. Strategic Planning 2.1.2. SWOT Analysis			
	2.1.2. Swot Analysis 2.2. Traditional and agile approaches to Project planning			
	2.2.1. Traditional Approach to Project Planning			
	2.2.2. Agile Approach to Project Planning 2.2.2. Agile Approach to Project Planning/Strategy			
	2.2.3. Implementation Circle			
	2.2.3.1. What is the Difference Between a Product Manager and a Program or Project Manager?			
	2.2.3.2. What is the Difference Between a Product Roadmap and a Gantt Chart?			
	2.2.3.3. Combination Approach to Project Planning			
		2.3. Methods for Selecting Projects		
	2.3.1. Focusing on Competitive Strategy and Broad Organizational Needs2.3.2. Performing Financial Projections			

	2.3.2.1. Net Present Value Analysis 2.3.2.2. Return on Investment
	2.3.2.3. Payback Analysis
	2.3.2.4. Using a Weighted Scoring Model
	2.3.3. Implementing a Balanced Scorecard
	2.3.4. Addressing Problems, Opportunities, and Directives 2.3.5. Project Time Frame
	2.3.6. Project Time Frame 2.3.6. Project Priority
	2.4. Program Selection
	2.4.1. Focusing on Coordination and Benefits2.4.2. Approaches to Creating Programs
	2.4.2. Approaches to Creating Frograms 2.5. Project Portfolio Selection
	2.5.1. Focusing on Enterprise Success 2.5.2. Sample Approach for Creating a Project Portfolio
	2.5.2. Sample Approach to Project Portfolio Management
	2.5.4. Lean Project Portfolio Management
	2.6. Chapter Summary
	2.7. Quick Quiz
	2.7.1. Quick Quiz Answers
	2.8. Discussion Questions
	2.9. Exercises
	2.10. Key Terms
	2.11. End Notes
3.	Chapter 3 Development Approaches and Project Life Cycles
	3.1. Development Approaches and Project Life Cycles
	3.1.1. Development Approaches
	3.1.2. Project Life Cycles
	3.1.3. Product Life Cycles
	3.2. Project Management Process Groups
	3.2.1. Mapping the Process Groups to the Knowledge Areas
	3.3. The Importance of Top Management Commitment
	3.3.1. The Need for Organizational Standards
	3.3.2. Project Management Offices
	3.4. Pre-Initiating and Initiating Global Construction's Just-In-Time Training Project
	3.4.1. Pre-initiating Processes and Outputs
	3.4.2. Preparing a business case
	3.4.3. Contents of a Business Case
	3.4.4. Sample Business Case
	3.4.5. Initiating Processes and Outputs
	3.4.6. Identifying Stakeholders
	3.4.7. Sample Stakeholder Register and Stakeholder Analysis
	3.4.8. Creating a Project Charter and Assumptions Log
	3.4.9. Contents of a Project Charter
	3.4.10. Sample Project Charter 3.4.11. Contents of an Assumption Log
	3.4.12. Sample Assumption Log
	3.4.13. Holding a Project Kick-Off Meeting
	3.4.14. Sample Kick-Off Meeting Agenda
	3.5. Pre-Initiating and Initiating an agile/hybrid project
	3.5.1. The Scrum Framework
	3.5.2. Identifying Key Stakeholders
	3.5.3. Creating a Product Vision Statement
	3.5.4. Sample Product Vision Statement
	3.5.5. Creating a Product Strategy and Product Roadmap
	3.5.6. Sample Product Strategy and Product Roadmap

	3.5.8. (3.5.9. S 3.5.10. 3.5.11. 3.6. Chap 3.7. Quick 3.7.1. (Quick Quiz Answers	
		ussion Questions	
	3.9. Exerc		
	3.10.	Team Projects	
	3.11. 3.12.	Key Terms End Notes	
4.	Chapter	4 Planning Projects Part 1	
		ect Planning Should Guide Project Execution	
	_	mary of Planning Processes and Outputs for Integration and Scope	
		ect Integration Management	
	-	Project Management Plans	
	4.3.2. 9	Sample Project Management Plan	
	-	ect Scope Management	
		Planning Scope Management	
		Sample Requirements Management Plan Collecting Requirements	
		Sample Requirements Traceability Matrix	
		Defining Scope	
		Sample Scope Statement	
		Creating the Work Breakdown Structure Example WBSs	
		Approaches to Developing Work Breakdown Structures	
		4.9.1. Using Guidelines or Templates	
		4.9.2. The Analogy Approach	
		1.9.3. The Top-down Approach 1.9.4. The Bottom-up Approach	
		1.9.5. Mind Mapping	
		Sample WBS	
		Creating the WBS Dictionary	
		Sample WBS Dictionary Entry	
	_	ration Planning for An Agile/Hybrid Project	
	4.6. Scope Planning for An Agile/Hybrid Project 4.6.1. Themes, Initiatives, Epics and Story Cards		
	4.6.2. Sample Epics and Story Cards		
	4.7. Chapter Summary		
	4.8. Quicl	,	
		Quick Quiz Answers	
	4.9. Discu	ussion Questions	
	4.10.	Exercises	
	4.11.	Team Projects	
	4.12.	Key Terms	
	4.13.	End Notes	
5.	Chapter	5 Planning Projects Part 2	
	5.1. Intro	duction	
	5.2. Sumr	mary of Planning Processes and Outputs	

	 5.3. Project schedule management 5.3.1. Planning Schedule Management 5.3.2. Defining Activities 5.3.3. Creating the Activity List and Attributes 5.3.4. Sample Activity List and Attributes 5.3.5. Creating a Milestone List 5.3.6. Sample Milestone List 5.3.7. Sequencing Activities 5.3.7.1. Project Schedule Network Diagrams 5.3.7.2. Estimating Activity Duration 5.3.7.3. Sample Activity Duration Estimates 5.3.8. Developing the Project Schedule 5.3.9. Critical Path Analysis 5.3.9.1. Calculating the Critical Path 5.3.9.2. Growing Grass Can Be on the Critical Path 5.3.9.3. Using Critical Path Analysis to Make Schedule Trade-Offs 5.3.9.4. Importance of Updating Critical Path Data 5.3.10. Critical Chain Scheduling 5.3.11. Sample Project Schedule 5.3.12. Sample Project Calendar 5.4. Planning Cost Management 5.4.1. Planning Cost Management 5.4.2. Estimating Costs 5.4.3. Cost Estimation Tools and Techniques 5.4.4. Sample Cost Estimate 5.4.5. Cost Budgeting 5.4.6. Sample Cost Estimate 5.5.5. Schedule planning for an agile/hybrid project 5.5.1. Timeboxing 5.5.2. Kanban Method 5.6. Cost planning for an Agile/hybrid Project
	5.6.1. Relative Estimates 5.6.2. Sample Relative Estimates
	5.7. Chapter Summary
	5.8. Quick Quiz
	5.8.1. Quick Quiz Answers
	5.9. Discussion Questions
	5.10. Exercises
	5.11. Key Terms
	5.12. End Notes
6.	Chapter 6 Planning Projects Part 3

- 6.4.7. Staffing Management Plans
- 6.4.8. Sample Staffing Management Plan
- 6.4.9. Team Charter
- 6.4.10. Sample Team Charter
- 6.4.11. Estimating Activity Resources
- 6.4.12. Sample Activity Resource Requirements

6.5. Project Communications Management

- 6.5.1. Communications Management Plans
- 6.5.2. Sample Communications Management Plan
- 6.5.3. Project Websites
- 6.5.4. Sample Project Website

6.6. Project Stakeholder Management

6.6.1. Stakeholder Engagement Plans

6.7. Project Risk Management

- 6.7.1. Planning Risk Management
- 6.7.2. Sample Risk Management Plan
- 6.7.3. Identifying Risks
- 6.7.4. Performing Qualitative Risk Analysis
- 6.7.5. Sample Probability/Impact Matrix
- 6.7.6. Performing Quantitative Risk Analysis
- 6.7.7. Planning Risk Responses
- 6.7.8. Risk Registers
- 6.7.9. Sample Risk Register
- 6.7.10. Risk-Related Contract Decisions
- 6.7.11. Sample Risk-Related Contract Decisions

6.8. Project Procurement Management

- 6.8.1. Make-or-Buy Decisions
- 6.8.2. Sample Make-or-Buy Decision
- 6.8.3. Procurement Management Plans
- 6.8.4. Types of Contracts
- 6.8.5. Sample Procurement Management Plan
- 6.8.6. Bid Documents: Requests for Information, Proposals, or Quotes
- 6.8.7. Sample Requests for Proposal
- 6.8.8. Procurement Statements of Work
- 6.8.9. Sample Procurement Statement of Work
- 6.8.10. Source Selection Criteria and Supplier
- 6.8.11. Evaluation Matrices
- 6.8.12. Sample Supplier Evaluation Matrix

6.9. Change Management and Applying Project Management Principles to Planning Projects

- 6.9.1. Managing Change in Organizations: A Practice Guide
- 6.9.2. ADKAR® Model
- 6.9.3. Kotter's 8-Step Process for Leading Change
- 6.9.4. Virginia Satir Change Model
- 6.9.5. Bridges Transition Model
- 6.9.6. Applying Project Management Principles to Change Management and Planning Projects

6.10. Quality, resource, communications, stakeholder, risk, and procurement management planning for an agile/hybrid project

- 6.10.1. Agile Quality Planning
 - 6.10.1.1. Sample Definition of Done
- 6.10.2. Agile Resource Planning
- 6.10.3. Agile Communications Planning
 - 6.10.3.1. Sample Agile Events to Aid in Communications
- 6.10.4. Agile Stakeholder Planning
- 6.10.5. Agile Risk Planning
- 6.10.6. Agile Procurement Planning
 - 6.10.6.1. Sample Agile/Hybrid Procurement Planning

6.11. Chapter Summary

	6.12.	Quick Quiz
	6.12.1.	Quick Quiz Answers
	6.13.	Discussion Questions
	6.14.	Exercises
	6.15.	Team Projects
	6.16.	Key Terms
	6.17.	End Notes
	0.17.	Elia Notes
7.	Chapter	7 Executing Projects270
	7.1. Introd	duction
		nary of Executing Processes and Outputs
		ct Integration Management
	-	Deliverables
		ample Deliverables
		Vork Performance Data
		ample Work Performance Data
		ssue Logs
		ample Issue Log
		Change Requests
		ample Change Request
	7.3.9. S	ample Implemented Solutions to Problems
		.9.1. Issues with Competence and Motivation
		.9.2. Poor Conflict Management
		Managing Project Knowledge
		Lessons Learned Register
		Sample Lessons Learned Register
		nging Quality
		Quality Improvement Tools and Techniques
		ample Kanban Board
		ample Cause and Effect Diagram
	-	ct Resource Management
		Activation
		.1.1. Maslow's Hierarchy of Needs
		.1.2. Herzberg's Motivation-Hygiene Theory .1.3. McClelland's Acquired-Needs Theory
		.1.4. McGregor's Theory X and Theory Y and Ouchi's Theory Z
		.1.5. Thamhain and Wilemon's Influence Bases
	7.5	.1.6. Covey's Effectiveness Research
		acquiring Resources
		lesource Loading and Leveling
		ample Project Team Assignments
		Developing the Project Team
	7.5.6. T	
		eam-Building Activities Leward and Recognition Systems
		ample Team Performance Assessment
		Managing the Project Team
		General Advice on Managing Teams
		Additional Advice for Managing Virtual Teams
		ct Communications Management
	-	mportant Project Communications Concepts
		.1.1. Formal and Informal Communications
		.1.2. Nonverbal Communications
	7.6	.1.3. Using the Appropriate Communications Medium
		.1.4. Understanding Individual and Group Communication Needs
		.1.5. The Impact of Team Size on Project Communications
	7.6	.1.6. Project Communications and Updating Business Processes

7.0.	1.1.7. Sample opuates to business Processes		
7.7. Project stakeholder Management			
7.7.1. N	Nanaging Stakeholder Engagement		
7.8. Projec	7.8. Project risk Management		
7.8.1. lr	7.8.1. Implementing Risk Responses		
7.9. Projec	ct Procurement Management		
7.9.1. C	onducting Procurements		
7.9.2. S	ample Qualified Seller List		
7.9.3. S	ample Agreement or Contract		
7.10.	Applying leadership styles and Project Management Principles to project execution		
	Leadership Styles		
	Applying Project Management Principles Related to Executing Projects		
7.11.	Executing Agile/Hybrid Projects		
	Theory Versus Practice		
	Implemented Solutions to Problems on Agile Projects		
	1.2.1.Team Members Do Not Have All the Necessary Skills 1.2.2.Teams Are Not Following Scrum Values		
	1.2.3. Requirements Change Too Quickly		
7.12.	Chapter Summary		
7.13.	Quick Quiz		
	Quick Quiz Answers		
7.14.	Discussion Questions		
7.15.	Exercises		
7.16.	Team Projects		
7.17.	Key Terms		
7.17.	End Notes		
7.10.	Lift Notes		
Chanter	8 Monitoring and Controlling Projects330		
8.1. Introd			
	nary of Monitoring and Controlling Processes and Outputs		
-	ct Integration Management		
	Monitoring and Controlling Project Work		
	.1.1. Forecasting with Earned Value Management .1.2. Sample Forecast Using an Earned Value Chart		
	erformance Reports		
8.3.3. S	ample Performance Report		
8.3.4. lr	ntegrated Change Control		
8.4. Projec	ct Scope Management		
	alidating Scope		
	ample of Accepted and Unaccepted Deliverables		
	ontrolling Scope		
-	ct Schedule Management		
8.5.1. Sample Work Performance Information			
8.6. Project Cost Management			
8.7. Project Quality Management			
	ample Quality-Control Tools		
8.8. Project resource Management			
8.9. Project Communications Management			
8.10.	Project stakeholder Management		
8.11.	Project Risk Management		
8.11.1.	Sample Risk Register Updates		
8.12.	Project Procurement Management		
8.12.1.	Sample Written Notice of a Closed Contract		
8.13.	Applying project management principles to monitoring and controlling projects		

8.

		Monitoring and Controlling Agile/Hybrid Projects Burn Charts Sample Burndown and Burnup Charts Velocity Charts
	8.15.	Chapter Summary
	8.16.	Quick Quiz
		Quick Quiz Answers
	8.17.	Discussion Questions
	8.18.	Exercises
	8.19.	Team Projects
	8.20.	Key Terms
	8.21.	End Notes
9.	Chapter	9 Closing Projects372
	9.1. Introd	
		nary of Closing Outputs
		ct Integration Management
		ample Customer Acceptance/Project Completion Form
		ample Final Report
		ample Transition Plan
		roject Close-Out Meeting and Knowledge Transfer
		ng agile/hybrid projects
		e on Closing Projects
	•	ter Summary
	9.7. Quick	
		duick Quiz Answers
		ssion Questions
	9.9. Exerci	
	9.10.	Team Projects
	9.11.	Key Terms
	9.12.	End Notes
10	.Chapter	10 Project Management Professional (PMP $^{ ext{ iny 8}}$) and Other Certifications394
	10.1.	Introduction
	10.2.	What Is PMP® Certification and Why Is It Valuable?
	10.3.	Requirements For Earning And Maintaining PMP® Certification
	10.3.1.	Project Management Work Experience Requirements
		Project Management Education Requirements
		Application and Payment Requirements Examination Requirements
		Requirements for Maintaining the PMP®
	10.4.	What Is the Structure and Content of the PMP® Exam?
	10.4.1.	Exam Content Outline
	10.4.2.	Question Types
	10.5.	Suggestions for Preparing for the PMP® Exam
		Create a Study Plan
		Find Good PMP® Exam Prep Resources
	10.6.	Tips for PMP® Exam Day
	10.7.	Sample PMP® Exam Questions
	10.8.	Additional Certifications from PMI
	10.9.	Other Certifications
		Grow with Google PRINCE2, or Projects in Controlled Environments
	10.9.7.	FININCEZ, DE FIDIECIS III CONTROLLEU ENVIRONMENTS

Scrum.org
International Project Management Association
CompTIA
Other Certificate Programs C
Chapter Summary
Quick Quiz
Quick Quiz Answers
Discussion Questions

10.13. Exercises10.14. End notes