

Introduction to IT Project Management

Introduction to IT Project Management

Quick-reference guide for students, new managers, and anyone needing a concise overview.

1. What Is IT Project Management?

Aspect	Description
Definition	The discipline of planning, executing, monitoring, and closing information technology projects to deliver defined outcomes on time, within budget, and to the required quality.
Key Goal	Align technology solutions with business objectives while managing risk, scope, resources, and stakeholder expectations.
Typical Deliverables	Software applications, infrastructure upgrades, cloud migrations, data analytics platforms, cybersecurity implementations, etc.

2. Core Components of an IT Project

Component	What It Covers	Typical Artifacts
Scope	What will be delivered (features, functions, services).	Scope statement, Work Breakdown Structure (WBS).
Schedule	Timeline for all activities.	Gantt chart, milestone list, critical path.
Cost	Budgeted financial resources.	Cost estimate, budget baseline, expense tracking.
Quality	Standards and acceptance criteria.	Quality Management Plan, test cases, defect logs.
Resources	People, hardware, software, facilities.	Resource allocation matrix, RACI chart.
Risk	Potential problems and opportunities.	Risk register, mitigation plans.
Communication	Information flow among stakeholders.	Communication plan, status reports, meeting minutes.

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Component	What It Covers	Typical Artifacts
Procurement	External goods/services needed.	Procurement plan, contracts, vendor evaluations.
Stakeholder Management	Identification and engagement of all parties impacted.	Stakeholder register, engagement strategy.

3. Project Lifecycle Models

Model	When to Use	Key Characteristics
Waterfall	Well-defined, stable requirements (e.g., infrastructure rollout).	Linear phases, documentation heavy, limited iteration.
Iterative / Incremental	Projects needing early partial delivery (e.g., phased software releases).	Repeats cycles of planning-execution-review, each increment adds value.
Agile (Scrum, Kanban, XP)	High uncertainty, evolving requirements (e.g., SaaS product development).	Short sprints, continuous feedback, self-organizing teams.
Hybrid (Waterfall + Agile)	Large enterprises balancing governance and flexibility.	Combines predictive planning with iterative delivery.
PRINCE2	Organizations requiring rigorous governance and stage-gate control.	Defined roles, product-focus, "manage by stages".

4. Standard Frameworks & Methodologies

Framework	Origin	Core Documents / Artefacts
PMBOK® (Project Management Institute)	USA, 1996 - 7th edition (2021)	Project charter, Management plans, Knowledge area processes.
PRINCE2	UK, 1996 - 2022 update	Business case, Project initiation documentation (PID), Stage plans.
Scrum	Agile Alliance, 1995	Product backlog, Sprint backlog, Increment, Definition of Done.
ITIL (Service Management)	UK, 1980s	Service design package, Change management, Service transition.

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Framework

Origin

Core Documents / Artefacts

COBIT

ISACA

Governance objectives, Control objectives,
Process assessments.

5. Key Roles in an IT Project

Role

Primary Responsibilities

Project Sponsor Provides funding, resolves escalated issues, champions the project.

****Project Manager**