

# Project Management (BPM1313)

## Project Management Lifecycle

by

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# Project Management Lifecycle

- Aims
  - To display the importance of project lifecycle and project phases to the students
  - To further extend the social, economical and environmental influences towards a project
- Expected Outcomes
  - Students are expected to differentiate the relationship between general management skills and project management skills
- Other related Information
  - PMBOK study guide
- References
  - Project Management Institute (PMI). Project Management Body of Knowledge (PMBOK Guide) 5th Edition.
  - Burke, R. 2007. *Introduction to Project Management*. Burke Publishing.
  - Kerzner, H. 2001. *Project Management: A System Approach to Planning, Scheduling and Controlling*. John Wiley & Sons, Inc.



# Project Phases & Project Life Cycle

- ❖ Projects are unique undertaking – involve a degree of uncertainty
- ❖ Projects are divided into several project phases
- ❖ To improve management control and provide links to the ongoing operations
- ❖ Collectively, project phases are known as the Project Life Cycle



# Characteristics of Project Phases

- ❖ Each project phase are marked by completion of one or more deliverables e.g design review, progress report and product prototype.
- ❖ Deliverables are part of a generally sequentially logic designed to ensure proper definition of the product of the project
- ❖ Project phase conclusion is marked by a review of both key deliverables and project performance to date;

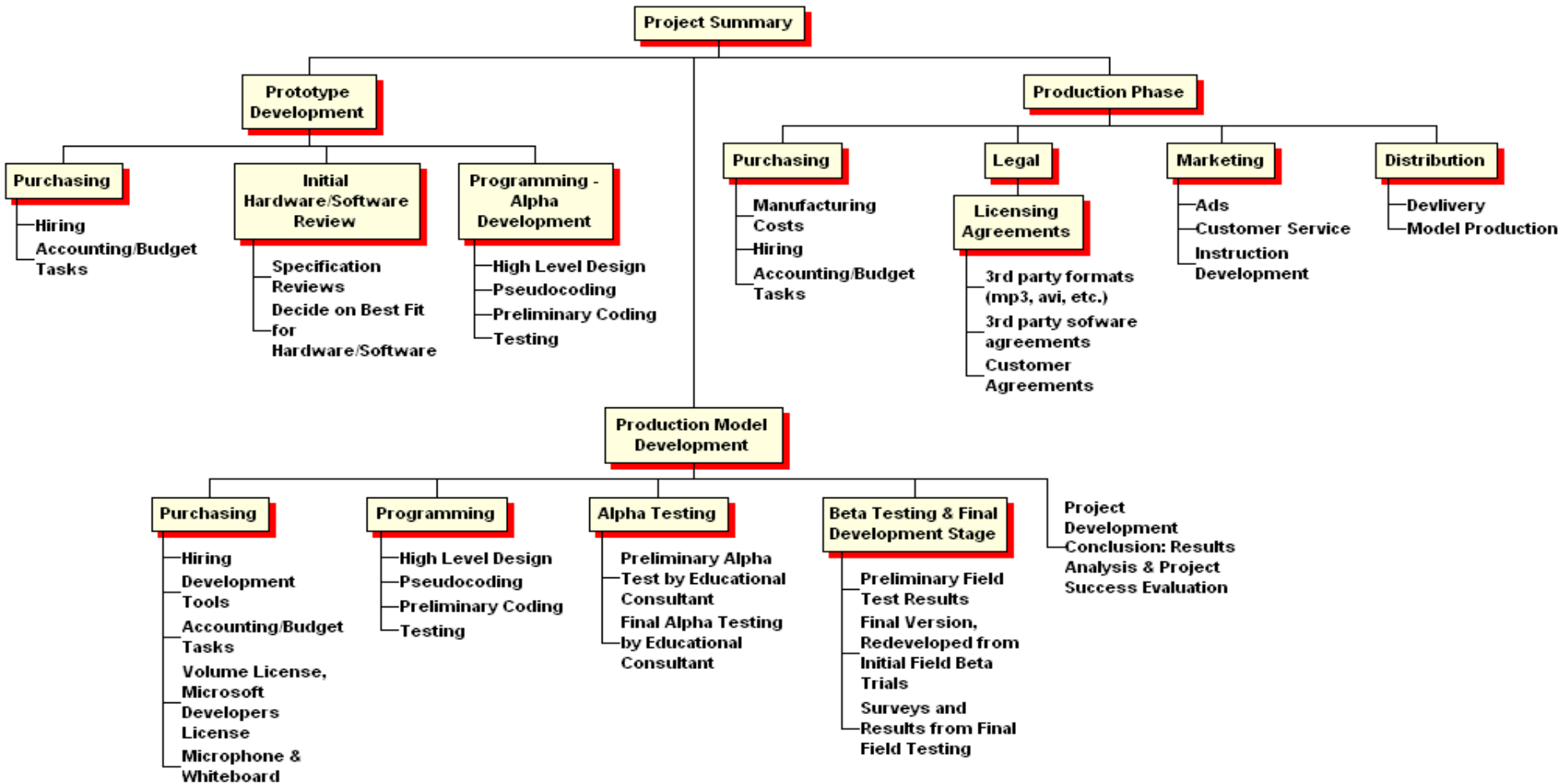


# Characteristics of Project Phases

- ❖ Project phase conclusion is marked by a review of both key deliverables and project performance to date;
  - To determine if the project should continue into its next phase
  - To detect and correct errors cost effectively
- ❖ These phase-end reviews are often called phase exits, stage gates or kill points



# Characteristics of Project Phases



Source: PMBOK 2008



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# Characteristics of Project Phases

ID	Task Name	Duration	Start	Finish	November 11		February 1		September 21		May 11		January 1		August
					7/18	11/7	2/27	6/19	10/9	1/29	5/21	9/10	12/31	4/22	8/12
1	<b>Prototype Development</b>	<b>105 days</b>	<b>Mon 1/17/05</b>	<b>Fri 6/10/05</b>											
2	Project Management	105 days	Mon 1/17/05	Fri 6/10/05											
3	<b>Initial Hardware/Software Review</b>	<b>105 days</b>	<b>Mon 1/17/05</b>	<b>Fri 6/10/05</b>											
4	Specification Reviews	75 days	Mon 1/17/05	Fri 4/29/05											
5	Best Hardware/Software Fit	30 days	Mon 5/2/05	Fri 6/10/05											
6	<b>Programming</b>	<b>103 days</b>	<b>Mon 1/17/05</b>	<b>Wed 6/8/05</b>											
7	High Level Design	16 days	Mon 1/17/05	Mon 2/7/05											
8	Pseudocoding	17 days	Tue 2/8/05	Wed 3/2/05											
9	Preliminary Coding	35 days	Thu 3/3/05	Wed 4/20/05											
10	Testing	35 days	Thu 4/21/05	Wed 6/8/05											
11	<b>Production Model Development</b>	<b>526 days?</b>	<b>Fri 6/10/05</b>	<b>Fri 6/15/07</b>											
12	Project Management	521 days	Mon 6/13/05	Mon 6/11/07											
13	<b>Purchasing</b>	<b>525 days</b>	<b>Mon 6/13/05</b>	<b>Fri 6/15/07</b>											
14	Development Tools	3 days	Mon 6/13/05	Wed 6/15/05											
15	Accounting/Budget Tasks	525 days	Mon 6/13/05	Fri 6/15/07											
16	Software Licensing	15 days	Mon 6/13/05	Fri 7/1/05											
17	Microphone, Whiteboard & Related	14 days	Mon 6/13/05	Thu 6/30/05											
18	<b>Programming/Hardware Integration</b>	<b>522 days?</b>	<b>Fri 6/10/05</b>	<b>Mon 6/11/07</b>											
19	First Release, Alpha Version	121 days	Fri 6/10/05	Fri 11/25/05											
20	Prelim Alpha Test Appvl by Ed Consult	30 days	Mon 11/28/05	Fri 1/6/06											
21	Final Version Alpha Release	110 days	Mon 1/9/06	Fri 6/9/06											
22	Final Alpha Test Appvl by Ed Consult	10 days	Mon 6/12/06	Fri 6/23/06											
23	Preliminary Beta Field Test Results	35 days	Mon 6/26/06	Fri 8/11/06											
24	Redeveloped Final Release Version	85 days	Mon 8/28/06	Fri 12/22/06											
25	Field Test, Surveys and Results, Final	84 days	Mon 1/15/07	Thu 5/10/07											
26	Results Analysis/Overall Success Eval	22 days?	Fri 5/11/07	Mon 6/11/07											
27	<b>Production Phase</b>	<b>180 days</b>	<b>Tue 6/12/07</b>	<b>Mon 2/18/08</b>											
28	Project Management	74 days	Tue 6/12/07	Fri 9/21/07											
29	Accounting/Budget Tasks	74 days	Tue 6/12/07	Fri 9/21/07											
30	<b>Legal</b>	<b>7 days</b>	<b>Tue 6/12/07</b>	<b>Wed 6/20/07</b>											
31	<b>Licensing Agreements</b>	<b>7 days</b>	<b>Tue 6/12/07</b>	<b>Wed 6/20/07</b>											
32	3rd party formats	7 days	Tue 6/12/07	Wed 6/20/07											
33	3rd party software	4 days	Tue 6/12/07	Fri 6/15/07											
34	Customer Agreements	5 days	Tue 6/12/07	Mon 6/18/07											
35	<b>Marketing</b>	<b>180 days</b>	<b>Tue 6/12/07</b>	<b>Mon 2/18/08</b>											
36	Ads	40 days	Tue 6/12/07	Mon 8/6/07											
37	Customer Service	180 days	Tue 6/12/07	Mon 2/18/08											
38	Instruction Development	10 days	Tue 6/12/07	Mon 6/25/07											
39	<b>Distribution</b>	<b>100 days</b>	<b>Tue 6/12/07</b>	<b>Mon 10/29/07</b>											
40	Model Production	100 days	Tue 6/12/07	Mon 10/29/07											
41	Delivery	80 days	Tue 6/12/07	Mon 10/1/07											

Source: PMBOK 2008



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# Definition of Project Life Cycle (PLC)

- ❖ The four phases through which a project moves;
  - Identification of a need, problem or opportunity;
  - Development of a proposed solution;
  - Implementation of the proposed solution; and
  - Termination of the project

***Gido & Clements – Successful Project Management***



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# Project Life Cycle (PLC)

- ❖ Every program, project or product has certain phases of development known as Life-Cycle Phases
- ❖ **No agreement** among industries or even companies within the same industry about the Life Cycle phases of a project



# Project Life Cycle (PLC)

❖ Theoretical definitions of the Life Cycle phases of a system :

- **Conceptual**
- **Planning**
- **Testing**
- **Implementation**
- **Closure**



# Project Life Cycle (PLC)

- ❖ Partial agreement about life cycle phases of a product:
  - **Research and Development**
  - **Market introduction**
  - **Growth**
  - **Maturity**
  - **Deterioration**
  - **Death**



# Project Life Cycle (PLC)

## ❖ Life cycle of Engineering:

- Start up
- Definition
- Main
- Termination



# Project Life Cycle (PLC)

## ❖ Life cycle for Manufacturing:

- Formation
- Buildup
- Production
- Phase-out
- Final audit



# Project Life Cycle (PLC)

## ❖ Life cycle for Computer

### Programming:

- Conceptual
- Planning
- Definition and design
- Implementation
- Conversion



# Project Life Cycle (PLC)

## ❖ Life cycle for Construction:

- Planning, data gathering and procedures
- Studies and basic engineering
- Major review
- Detail engineering
- Construction overlap
- Construction
- Testing & commissioning





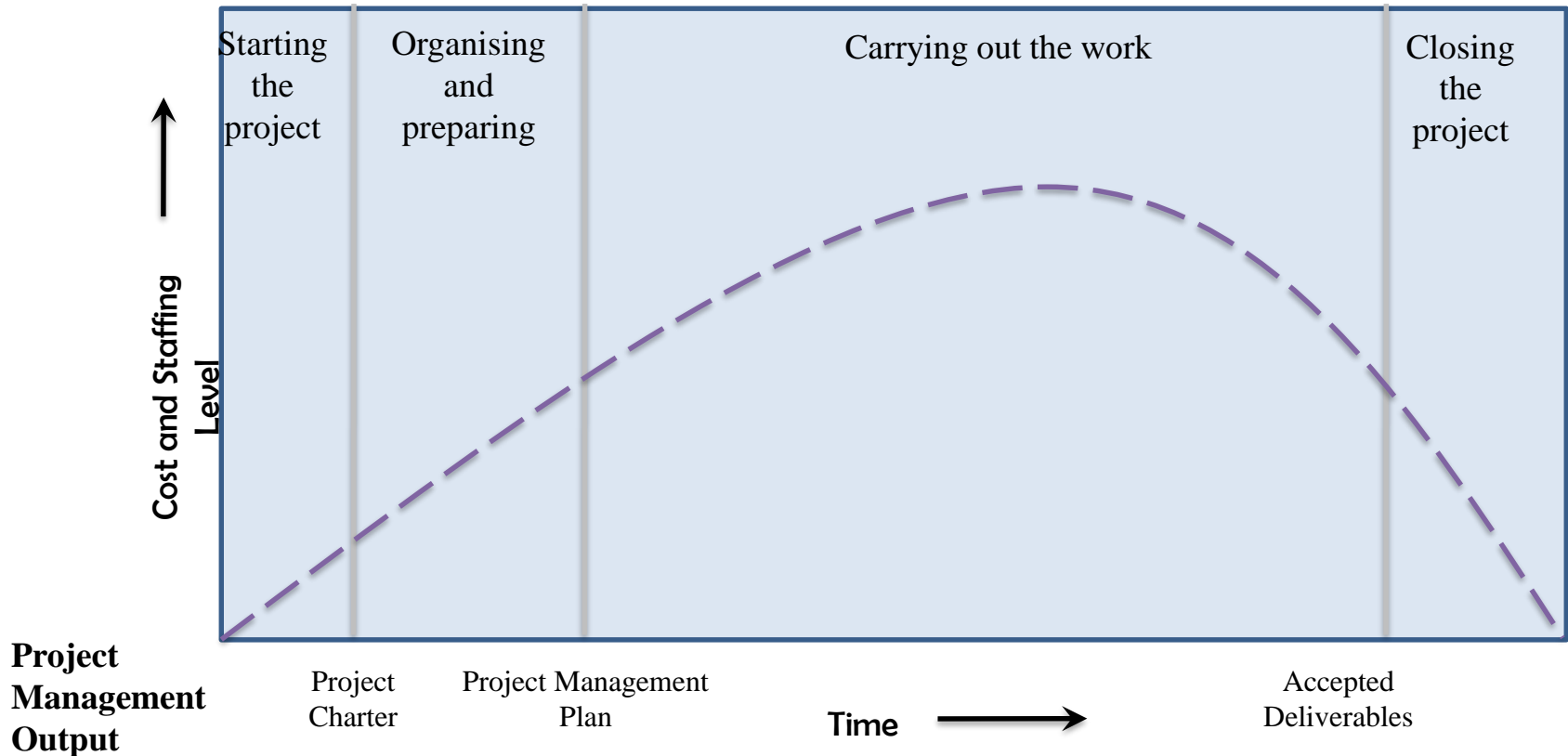
# Project Life Cycle (PLC)

## ❖ Life cycle for Construction:

- Planning, data gathering and procedures
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# Characteristics of the Project Life Cycle



Source: PMBOK 2008



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# Characteristics of the Project Life Cycle

- ❖ To define the beginning and the end of a project
- ❖ Determine whether the feasibility study is treated as the first project phase or as separate
- ❖ Determine which transitional actions at the beginning and the end of the project are included and which are not



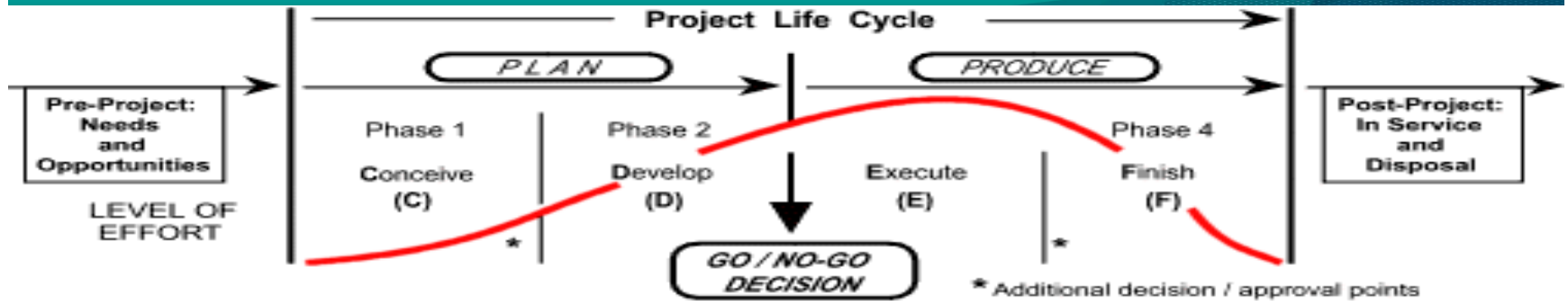
# Characteristics of the Project Life Cycle

## ❖ Common characteristics:

- Cost and staffing levels are low at the start, higher toward the end, and drop rapidly as the projects draws to an end
- The probability of successful completion of a project is lower, and improve risk and uncertainty to be higher, at the start of the project. The probability of successful completion generally gets progressively higher as the project continues
- The ability of the stakeholder to influence the final characteristics of the project's product and the final cost of the project is higher at the start and gets progressively lower as the project continues.



# Difference between **Project Life Cycle** and **Product Life Cycle**



\* Additional decision / approval points

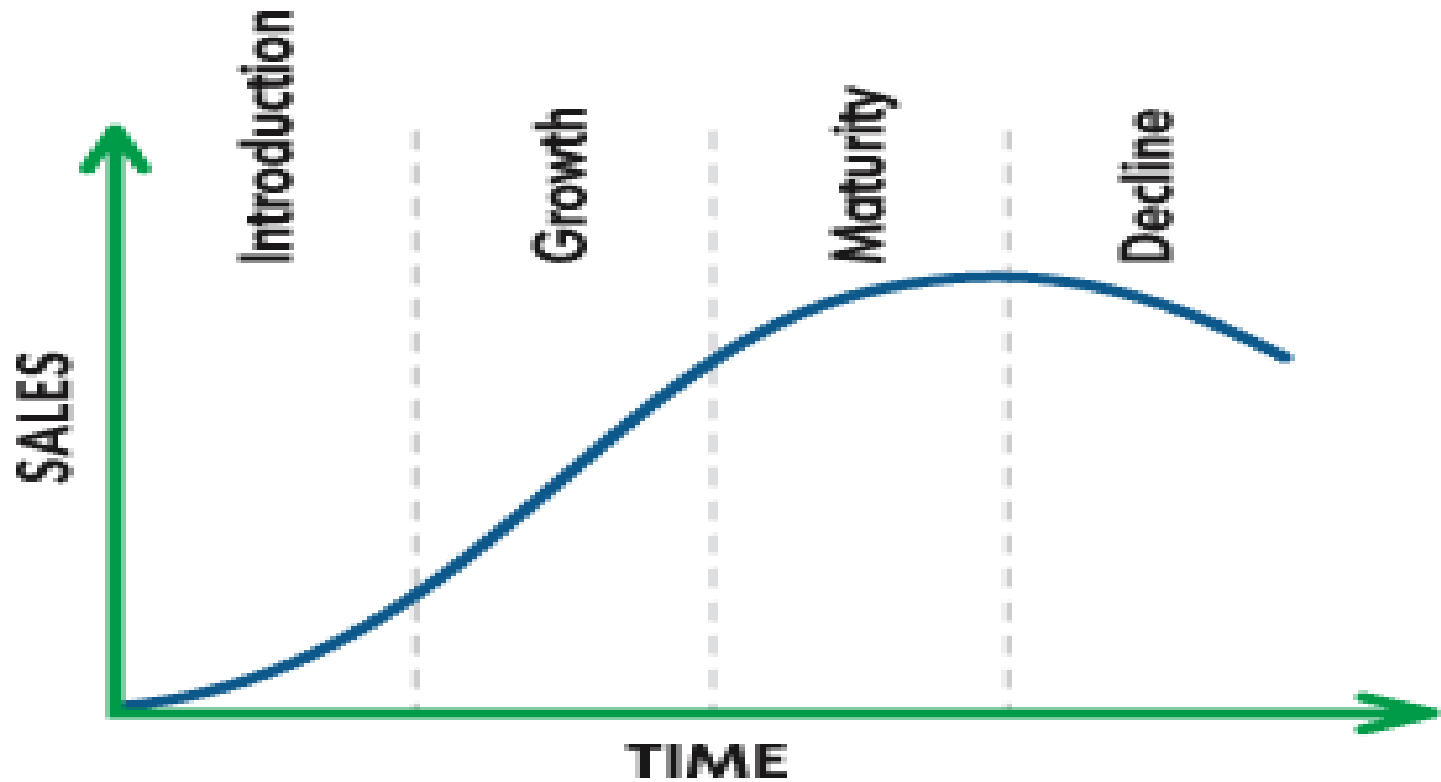
TYPICAL MAJOR TASKS	<ul style="list-style-type: none"> <li>Gather Data</li> <li>Identify Need</li> <li>Goals</li> <li>Practicality</li> <li>Economics</li> <li>Resources</li> <li>Strategies</li> <li>Risks</li> <li>Alternatives</li> <li>Selling</li> <li>Approvals</li> </ul>	<ul style="list-style-type: none"> <li>Feasibility</li> <li>Rationale</li> <li>Tactics</li> <li>WBS</li> <li>Project Team</li> <li>Schedule</li> <li>Budget,</li> <li>Cash Flow</li> <li>Re-assess Risks</li> <li>Project Brief</li> <li>Go/No-Go</li> </ul>	<ul style="list-style-type: none"> <li>Start Up</li> <li>Motivate Team</li> <li>Technical Rquts</li> <li>Work Packages</li> <li>PERT/CPM</li> <li>Procurement</li> <li>Execute Work</li> <li>Control Systems</li> <li>Progress Rprts</li> <li>Forecasting</li> <li>Resolve Issues</li> </ul>	<ul style="list-style-type: none"> <li>Finalize Project</li> <li>Reviews and Acceptances</li> <li>Training</li> <li>Settle a/c's</li> <li>Transfer Responsibility</li> <li>Reassign Team</li> <li>Final Report</li> <li>Close-out Records</li> </ul>
ORGANIZATIONAL STRATEGY	<ul style="list-style-type: none"> <li>Free Form</li> <li>Working Committee</li> </ul>	<ul style="list-style-type: none"> <li>Simple Matrix</li> <li>Task Force</li> </ul>	<ul style="list-style-type: none"> <li>Project Team</li> <li>Strong Matrix</li> </ul>	<ul style="list-style-type: none"> <li>Matrix</li> <li>Functional</li> </ul>
LEADERSHIP versus MANAGEMENT SKILLS	<ul style="list-style-type: none"> <li>Visionary</li> <li>Creative</li> <li>Conceptualizer</li> <li>Analytical</li> <li>Innovator</li> </ul>	<ul style="list-style-type: none"> <li>Leader</li> <li>Facilitator</li> <li>Planner</li> <li>Integrator</li> <li>Technically strong</li> </ul>	<ul style="list-style-type: none"> <li>Team leader</li> <li>Organizer</li> <li>Interface Manager</li> <li>People &amp; Task Oriented</li> <li>Controller</li> </ul>	<ul style="list-style-type: none"> <li>Team Leader</li> <li>Trainer</li> <li>Doer</li> <li>Technical Writer</li> <li>Compulsion to Complete</li> </ul>

Source: themediaant.com



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# Difference between **Project Life Cycle** and **Product Life Cycle**



Source: themediaant.com



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# Conclusion of The Chapter

- Project life cycle illustrates the uniqueness of project work; it recognizes that projects have a limited life span and that there are predictable changes in level of efforts and focus over the life of the project





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