

# UNIVERSITY INSTITUTE OF COMPUTING

## Agile Methodology (24CAT-656)



## Unit-2- Syllabus

Unit-2	Agile	Lecture Hours:10
<b>Agile Project Management</b>	Project Management introduction, Agile Scrum, Project management methodology, Selection of right project management methodology, Continuous integration and continuous delivery (CI/CD) in agile development.	
<b>Scrum</b>	Scrum framework, Scrum Roles, Agile Kanban, Agile Vs. Scrum. Product Backlog, Scrum Practices, Process flow of Scrum Methodologies,\	
<b>Agile Design</b>	Agile Daily Stand-up, Sprint Review meeting vs Daily Stand-up meeting in Agile, Definition of Done, Agile Design, Retrospective in Agile development.	

## • TEXT BOOKS

**T1** David J. Anderson and Eli Schragenheim, Agile Management for Software Engineering: Applying the Theory of Constraints for Business Results, Prentice Hall, 2003.

**T2** Hazza and Dubinsky, Agile Software Engineering, Series: Undergraduate Topics in Computer Science, Springer, 2009.

**T3** Agile Software Development Ecosystems by Jim Highsmith, Addison-Wesley 2002, ISBN 0201760436.

## • REFERENCES

**R1** Craig Larman, Agile and Iterative Development: A Managers Guide, Addison-Wesley, 2004.

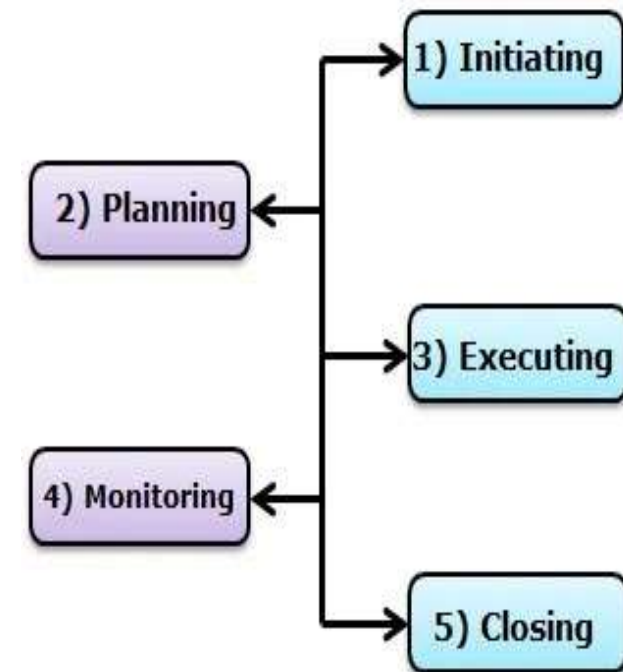
**R2** Kevin C. Desouza, Agile Information Systems: Conceptualization, Construction, and Management, Butterworth-Heinemann, 2007.

# Introduction to Project Management

- Henry Gantt was one of the pioneers of project management who developed the popular Gantt Chart, which is used as a diagram for project management.
- ‘Projects’ are tasks that could be part of our routine lives or any business. Projects could be anything from preparing a meal at home or organizing a vacation tour. And, if it’s business or work-related, developing a website or software, product or a tool, construction of a building can be termed as ‘Projects’.

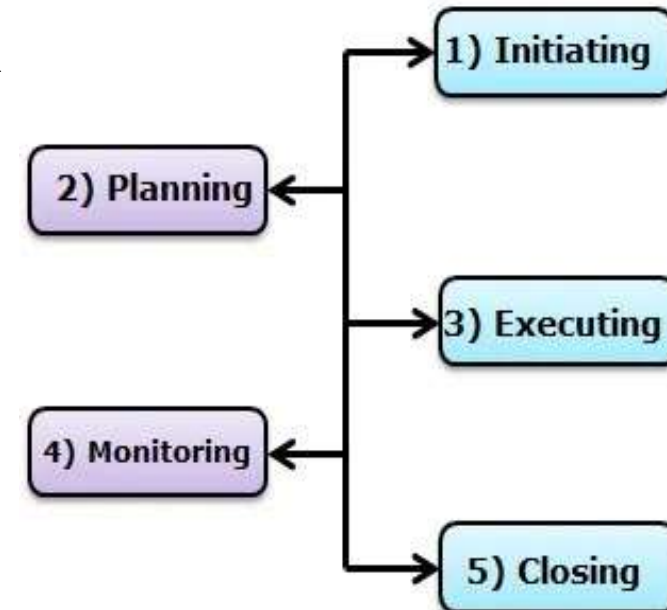
# Elements of Project Management

- **Initiating:** The first stage of PM, where formalizing of the project plan, charter and scope are defined so as to determine the cost, resources, timeline, and budgeting for the project.
- **Planning:** The most crucial stage of all, this stage includes strategize the scope of a project, identifying risks, if any, and developing mitigation plans by creating a set of tasks to administer the project.



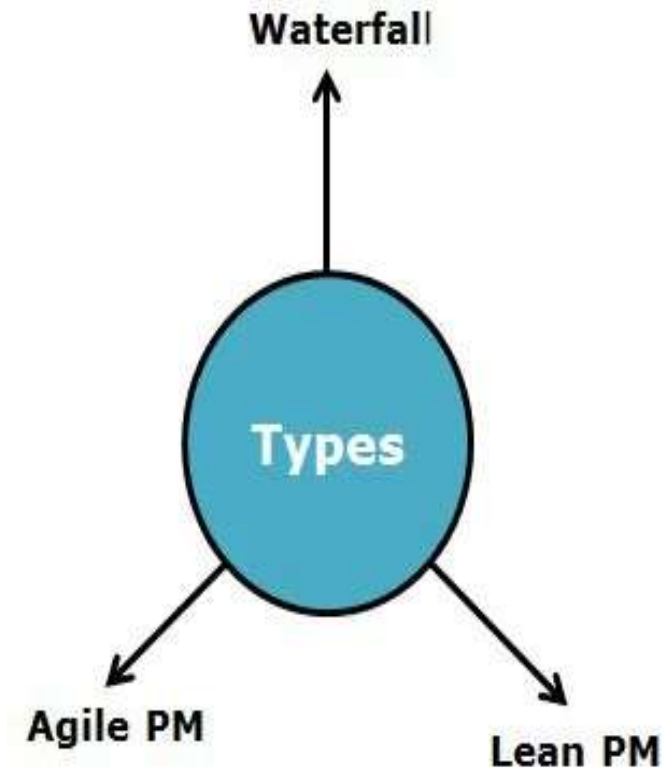
# Elements of Project Management

- **Executing:** This is a stage where the project team is ready to launch or administer the project. The tasks are delegated and resumed so as to keep track of the project and efficiently manage the same.
- **Monitoring/Controlling:** At this stage, evaluation of project performance is undertaken by comparing the real-time results to the defined actuals so as to ensure all the goals and deliverables are met.
- **Closing:** The last stage of a project where deliverables are surrendered to the customers, forwarding of documents to the business, the release of resources, and notifying the closure of the project to the stakeholders are carried out.



# Types of Project Management

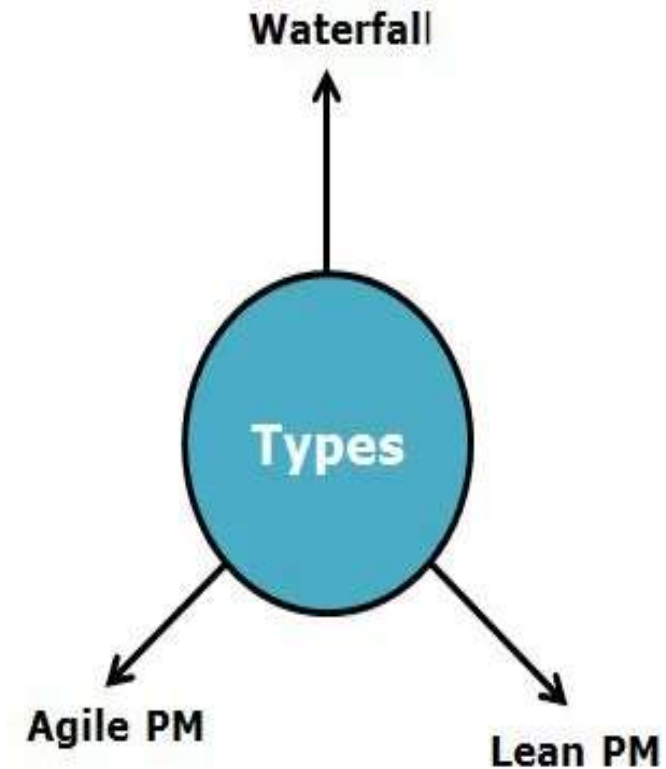
- **Waterfall PM:** As the name suggests, this is the conventional type of PM that follows the traditional pattern wherein the next task is resumed only after the completion of the previous task.
- Project timeline and attention to the sequence of tasks are paramount in this type of PM. In this type of PM, the team size goes on expanding as the smaller tasks are finished and the larger ones begin.





# Types of Project Management

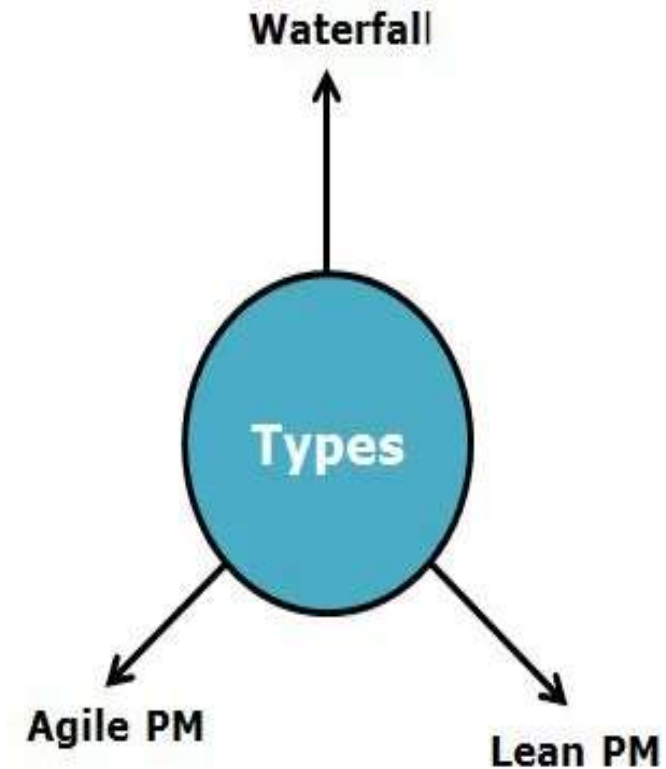
- **Agile PM:** The IT sector were the pioneers who use this type of PM. Unlike the conventional one, Agile follows the continual process of improvement through monitoring, continuous follow-up, and interactions with the team members as per the business conditions.
- It helps in identifying and rectification of errors without having to resume the entire process all over again, which is a plus





# Types of Project Management

- **Lean PM:** Lean PM is based on the principle of avoiding waste of time and resources. It practices the methodology of creating more value from less, which is primarily based on the Japanese way of functioning.
- The lean way of PM focuses on adding value by the elimination of everything else that fails to add value!



# Role of Project Manager

- The Project Manager is the ‘captain of the ship’ who is leading the project team, plans and executes a project.
- The project manager is required to ensure whether or not the project is in alignment with the customer’s vision and quality standards.
- The success or failure of the project is bestowed on the shoulders of the Project Manager.



# Role of Project Manager

- Identifying and defining the project scope, timeline, resources, and developing the budget.
- Formalizing the identified factors and putting forth the documents, preparing schedules and charts.
- Monitoring, evaluating, and reporting the progress to the stakeholders
- Conducting risk analysis, managing risks, and developing mitigation plans.



# Role of Project Manager

- Communicating and negotiating with the stakeholders
- Maintaining the quality standards of a project.
- Monitoring and managing the results as per the defined actuals.
- Closing the project by analyzing the results and communicating the same to the stakeholders.





# THANK YOU