Agile Project Management

Agile project management

- Agile Project Management is one of the revolutionary methods introduced for the practice of project management.
- This is one of the latest project management strategies that is mainly applied to project management practice in software development
- Therefore, it is best to relate agile project management to the software development process when understanding it.

Agile Project Management

Scope of Agile Project Management

In an agile project, the entire team is responsible in managing the team and it is not just the project manager's responsibility. When it comes to processes and procedures, the common sense is used over the written policies.

This makes sure that there is no delay is management decision making and therefore things can progress faster.

In addition to being a manager, the agile project management function should also demonstrate the leadership and skills in motivating others. This helps retaining the spirit among the team members and gets the team to follow discipline.

Agile project manager is not the 'boss' of the software development team. Rather, this function facilitates and coordinates the activities and resources required for quality and speedy software development.

Responsibilities of an Agile Project Manager

- The responsibilities of an agile project management function are given below. From one project to another, these responsibilities can slightly change and are interpreted differently.

- Responsible for maintaining the agile values and practices in the project team.

- The agile project manager removes impediments as the core function of the role.

- Helps the project team members to turn the requirements backlog into working software functionality.

Responsibilities of an Agile Project Manager

- Facilitates and encourages effective and open communication within the team.
- Responsible for holding agile meetings that discusses the short-term plans and plans to overcome obstacles.
- Enhances the tool and practices used in the development process.
- Agile project manager is the chief motivator of the team and plays the mentor role for the team members as well.

What is Extreme Programming?

- XP is a lightweight, efficient, low-risk, flexible, predictable, scientific, and fun way to develop a software.

- Extreme **P**rogramming (XP) was conceived and developed to address the specific needs of software development by small teams in the face of ambiguous and changing requirements.

- Extreme Programming is one of the Agile software development methodologies. It provides values and principles to guide the team behaviour. The team is expected to self-organize. Extreme Programming provides specific core practices where each practice is simple and self-complete.

- Combination of practices produces more complex and emergent behaviour.

Extreme Programming

XP values

Extreme Programming initially recognized values are:

- Communication
- Simplicity
- Feedback
- Courage
- Respect

Extreme Programming Advantages

Extreme Programming solves the following problems often faced in the software development projects −

- **Slipped schedules** − and achievable development cycles ensure timely deliveries.

- **Cancelled projects** − Focus on continuous customer involvement ensures transparency with the customer and immediate resolution of any issues.

- **Costs incurred in changes** − Extensive and ongoing testing makes sure the changes do not break the existing functionality. A running working system always ensures sufficient time for accommodating changes such that the current operations are not affected.

Extreme Programming Advantages

- **Production and post-delivery defects: Emphasis is on** − the unit tests to detect and fix the defects early.
- **Misunderstanding the business and/or domain** − Making the customer a part of the team ensures constant communication and clarifications.
- **Business changes** − Changes are considered to be expected and are accommodated at any point of time.
- **Staff turnover** − Intensive team collaboration ensures enthusiasm and good will. Unity of multi-disciplines raises the team spirit.

Extreme Programming Process Cycle

- Extreme Programming is iterative and incremental and is driven by Time-Boxed Cycles. Therefore, the rhythm of the Extreme Programming process is crucial.
- Extreme Programming has the following activity levels −
- Product Life Cycles
- Releases
- Iterations
- Tasks
- Development
- Feedback

- Each of the activity levels provides the minimal inputs required for the next level. They are −
- Product life cycle activities provide inputs for release cycles.
- Release planning sessions provide inputs for iteration cycles.
- Iteration planning sessions provide inputs for task cycles.
- Task development provides inputs for development episodes.
- Development produces the product.
- Feedback is a continuous activity throughout the project and across all the above activity levels.

Extreme Programming Process Cycle