

Management

Brainstorm Organize Team work

What is Project Management?

Wikipedia defines project management as:

"PROJECT MANAGEMENT IS THE PROCESS OF LEADING THE WORK OF A TEAM TO ACHIEVE ALL PROJECT GOALS WITHIN THE GIVEN CONSTRAINTS."

Project management is about defining a project by its start and its end. Then, using the tools available, to organize the work needed to get from that start to the end. Following through with each step and leading the team or teams involved to best achieve the goals of each step.

What is Agile?

Wikipedia defines Agile as a:

"...SET OF PRACTICES INTENDED TO IMPROVE THE EFFECTIVENESS OF SOFTWARE DEVELOPMENT PROFESSIONALS, TEAMS, AND ORGANIZATIONS. IT INVOLVES DISCOVERING REQUIREMENTS AND DEVELOPING SOLUTIONS THROUGH THE COLLABORATIVE EFFORT OF SELF-ORGANIZING AND CROSS-FUNCTIONAL TEAMS AND THEIR CUSTOMER(S)/END USER(S)."

Agile is a popular school of thought on which many software development project management frameworks are built. It is a collection of ideas that together advocate for various practices that are meant to improve the effectiveness of software development teams. The Agile manifesto lists the following values:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

Agile touches on topics such as:

1. Organization of work.
2. Different types of communication.
3. Focus on quality.

Organization of work

Agile emphasizes the importance of short iterative cycles (sprints in Scrum) where the teams are given the freedom to do the actual work with minimal distraction. The teams are also expected to do their own planning, discovery, and design. They are expected to commit to the work they take on. Thereby increasing their sense of responsibility and the hence the quality of their work.

At the end of each sprint each team is expected to release the work they have committed to and demonstrate its functionality to stakeholders. The primary measure of progress within the Agile school of thought is the working software itself.

Different types of communication

There is considerable emphasis on communication within Agile. Each team should have readily available access to a representative of the customer. That representative should have authority from the stakeholders to make decision on the product being built.

Face-to-face communication is superior to other forms of communication (chat, email, phone calls, etc). Regular meetings/rituals such as sprint planning, retrospective reviews, and daily standups are all important within the Agile framework to improve effective working time for the team.

Focus on quality

One of the primary hallmarks of Agile is the measurement of progress by working software. As such it is common to see emphasis on any tool or method proven to improve quality with little cost. Examples of such tools: unit testing, code reviews, continuous integration, etc. These tools all have it in common to reduce the time it takes for the team to gain confidence in its work, i.e., to be sure it works.

What is Scrum?

Wikipedia defines Scrum as:

"...A FRAMEWORK UTILIZING AN AGILE MINDSET FOR DEVELOPING, DELIVERING, AND SUSTAINING PRODUCTS IN A COMPLEX ENVIRONMENT,"

Scrum is the most popular framework built on agile it specifies various methods to encapsulate the values of Agile. Scrum specifies various roles within a team and emphasizes the importance of maintaining the team and building up during the lifetime of the overall project. The teams are small, generally 5-9 people, and always focused on the product goal.

Each team should have

1. One product owner
2. One scrum master
3. As many developers as needed to build the increments of the project

The product owner's primary role within the team is to represent the stakeholders. As such it is up to him to define work that needs to be done on the backlog (i.e. customer stories) and to prioritize it to the maximize business value of each sprint. The product owner does not control the technology used to solve the business needs, he simply defines the user centric requirements and defines the definition of done for each item on the backlog.

The scrum master's role within the team is to facilitate the team of developers so they can best achieve the goals of the sprint. The scrum master is responsible for coaching the team in the ways of scrum and to ensure that the framework is followed. This includes scheduling regular team events such as daily standups, sprint planning, sprint review and retrospective. Since the product owner is a part of the team, it is up to the scrum master to facilitate the maintenance of the backlog to be certain that the work needed is understood by the team. Removing impediments such as external dependencies is also an important part of a scrum master's role.

Agile defines a workflow to help implement the agile school of thought within an organization. The workflow is focused on a sprint. A sprint is a fixed set of time the length of which is decided ahead of time. This is contrary to most standard project management models where the work is defined and fixed but the time needed to accomplish it varies. A sprint starts with sprint planning where the team gets together and sets a sprint goal for the sprint. The goal is based on the work defined on the backlog and present on the meeting are the scrum master and the product owner. Their role is to answer any questions the team may have on the work specified on the backlog and to answer for any prioritization issues. Once it has been decided what items on the backlog should be worked on they form the sprint backlog which the team has committed to complete within the sprint. Once the sprint planning is completed the sprint formally begins.

Within the sprint the team works on the sprint backlog and completes the tasks specified to contribute to the sprint goal. Each day during the sprint the team gets together in a daily scrum, like in rugby, and discusses the work ahead of them. Each developer comes prepared to give the team an update on the work done so far. The daily scrum should have all members standing up and should take place at the same time and same place every working day.

Once the sprint is coming to an end a sprint review is to take place where the team showcases the work completed during the sprint. Stakeholders should be present to provide feedback and discuss the impact of the work. Once the sprint review is completed a sprint retrospective can take place. This is where the team discusses past sprints and agrees on actions to optimize future work.

What is Kanban?

Kanban is defined by Wikipedia as a:

"...LEAN METHOD TO MANAGE AND IMPROVE WORK ACROSS HUMAN SYSTEMS. THIS APPROACH AIMS TO MANAGE WORK BY BALANCING DEMANDS WITH AVAILABLE CAPACITY, AND BY IMPROVING THE HANDLING OF SYSTEM-LEVEL BOTTLENECKS."

Kanban is a method of organizing work common to agile and scrum. It is common for daily standups in scrum to happen in front of a Kanban board. Kanban boards a visual display of the state of the work todo, work in progress and work completed. Many Kanban boards may contain more steps. The Kanban workflow defines various steps from idea to delivered product with maximum concurrent tasks allowed in most steps. These maximums are meant to optimize the focus of the work being done in each step. Some pros of Kanban include:

- Easy to use. It's visual and easy to understand.
- Adaptable. It can be implemented in many ways.
- Collaboration. Kanban workflow is visual and works best when done together.
- Low overhead. The supervision of Kanban is easy compared to most other project management approaches.

Some cons of Kanban:

- Does not fit into a dynamic environment. Kanban is based on a consistent workflow that is not easily changed.
- Lack of timing. Kanban does not provide any timeframes which can be difficult when not paired with another project management tool such as scrum.

references:

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