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Agile Software Development

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Selecting an Agile Model for CGHM's new e-commerce website:

A Recommendation Report

Assignment one

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Summary

If company is starting in project management, it may feel overwhelmed by all the new concepts and procedures company will need to learn. After all, as part of their professions, project managers are tasked with performing various operations and duties. An efficient project plan, together with any supporting plans, is the project manager's responsibility. They anticipate potential problems and take measures to mitigate them. They are responsible for ensuring that projects stay within budget and time. That is only the beginning of a long list. However, before the company goes too far into the specifics, it will need to settle on a technique for managing its project from start to finish.

There is a wide variety of techniques to pick, and each one is better suited to specific tasks. Extreme Programming and Scrum are two of the most popular (and often confused) project management methods. It is not surprising that the two are often mistaken; their similarities make it simple to see how this may happen. This article will help CGHM decide which methodology best suits its project's needs by examining the similarities and differences between Scrum and Extreme Programming.

Introduction

According to the "Project Management Institute (PMI)", the objective of the Agile methodology is to provide early, quantifiable ROI through the specified, continuous delivery of product features. In order to keep the customer happy and the project manager flexible, Agile methods need constant communication and collaboration (Saleh et al., 2019).

With an Agile approach to project management, for example, CGHM is a new online store just like its rival Amazon and wants to have frequent contact with the client and end-users; CGHM is committed to a more open concept of scope that may develop depending on input from end-users, and CGHM will adopt an iterative approach to delivering the scope of work.

Although various project management approaches may be utilized to implement Agile tenets, this paper focuses on Extreme Programming (XP) and Scrum. It provides a thorough analysis of both approaches from the business perspective.

Scrum Framework

Scrum is a kind of Agile project management that has become more common in recent years. For Bogojević, (2017), "Scrum is a particular technique for managing a project". "It offers a method for identifying the job, assigning the task, carrying out the work, and evaluating the work" (Saleh et al., 2017). A product owner, Scrum master, and other cross-functional team members are essential to the success of a project managed using the Scrum framework (Anwer et al., 2017). The product owner's job is to ensure the product delivers the most value possible, while the Scrum master is in charge of ensuring the team uses Scrum properly (Saleh et al., 2017).

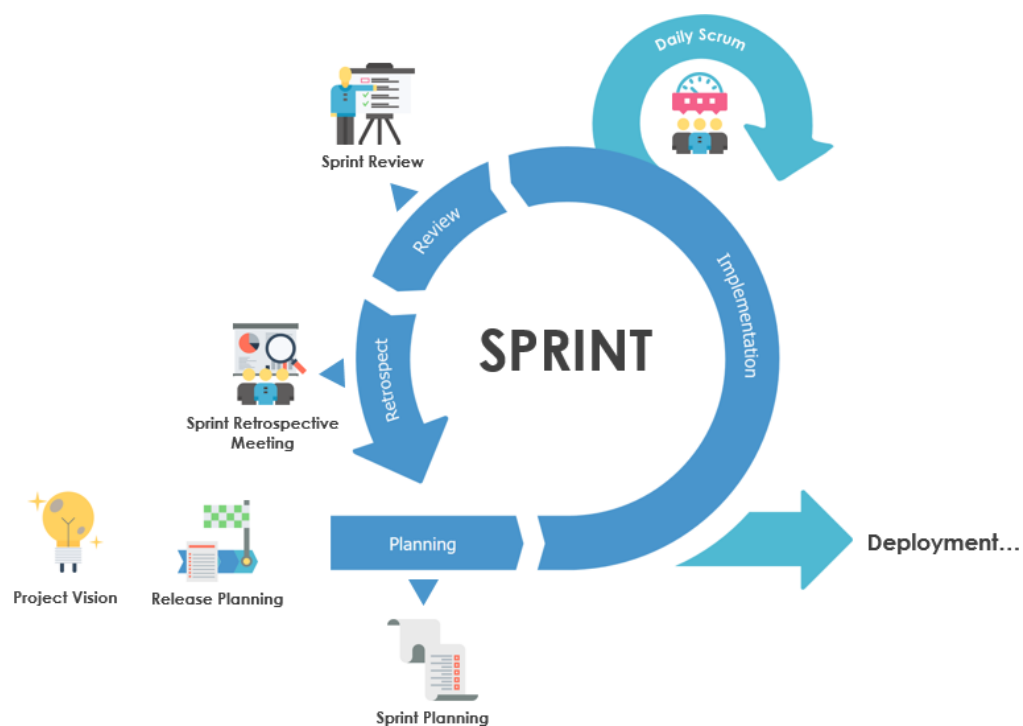
Scrum projects are broken up into small iterations, or "sprints," where the bulk of the work is done. Sprint planning is when the project team decides what subset of the overall scope will be worked on during the following sprint, which is typically two to four weeks long (Saleh et al., 2019). This work should be complete and ready to hand over to the customer after the sprint. After each sprint, everyone discusses what they accomplished and learned. This process is carried out periodically and repeatedly throughout the project's lifetime, right up to the point when the last deliverable in the project's scope has been made available (Saleh et al., 2017).

Numerous parallels can be seen between this and more conventional project management methods. However, rather than providing everything at once, one of the main changes is how "shippable" parts of

the project are made along the route (Bogojević, 2017). In this way, the customer may see the project's value as being completed rather than as a final deliverable.

Extreme Programming

XP is the most widely used method in agile development for coordinating team members to speed up the creation of high-quality software. Constant reviews, pair programming, testing, and code reworking are the four mainstays of XP methodology (Saleh et al., 2017). The XP methodology strongly recommends pairing programmers together to increase teamwork. Pair programming is a collaborative kind of software development in which two people (a driver and an observer) often work together and switch roles, increasing the sense of shared responsibility (Anwer et al., 2017). "Pair Programming" refers to having two programmers use the same computer to create code. User stories (story cards) and on-site customers are used for requirement gathering in XP (Saleh et al., 2019). XP is geared toward producing high-quality software despite software requirements that are difficult to pin down and are subject to frequent revision. XP relies on several cutting-edge innovations, such as having the client in the same room as the development team, pair programming, and communal code ownership (Anwer et al., 2017). The XP crew has been mandated to work 40 hours per week, drastically reducing their overtime. User Acceptance Tests (UAT), Refactoring, Test-Driven Development, and Pair Programming are all methodologies that XP promotes for a more robust and reliable software development process (Anwer et al., 2017).



Scrum vs Extreme Programming

Scrum and XP have a lot in common, including an iterative process, regular client involvement, and group decision-making, so it is easy to understand why they are frequently mistaken. Scrum is a particular kind of Agile framework, whereas XP is a project management philosophy based on shared values or principles. Scrum and XP also vary in other significant ways (Bogojević, 2017).

In SCRUM, the product owner gathers and manages needs in a product backlog, while in XP, the customer gathers requirements in the form of story cards, which are then converted into specific

requirements. While SCRUM prohibits changes to requirements during a sprint, XP encourages them. SCRUM iterations may go up to four weeks, whereas XP iterations typically last two weeks but can take anywhere from one to six (Anwer et al., 2017). If CGHM are working on a small team with a tight project deadline, they should use XP, but if they are working on a big team and need more time, they should use SCRUM. Pair programming is encouraged in XP because of its many benefits, including clearer lines of communication, improved knowledge sharing, faster development of higher-quality code, and less time spent on tedious tasks (Saleh et al., 2019). As a member of a SCRUM team, CGHM will need to be able to do a small quantity of everything. This is because the methodology emphasizes collaboratively completing development tasks.

Scrum is a specific form of the Agile technique in which deliverables in Scrum are smaller, and the sprints are shorter than in XP, where everything is provided after the project (Bogojević, 2017). Different responsibilities, such as Scrum Master and Product Owner, are assigned to members of an XP cross-functional team, but in Scrum, there are just a few defined positions. Although Scrum is an Agile technique, XP does not necessarily imply Scrum; many distinct methods adopt an Agile approach to project management.

Recommendation

Once CGHM have a firm grasp of what XP and Scrum are and how they fit together, CGHM can consider using them in its projects. Whether to use an XP or Scrum methodology is moot in light of the distinctions between them.

In its place is the issue of which specific Agile methodology to use after determining that such an approach is appropriate for a specific project. Scrum may be the solution, or it may be another of the many Agile frameworks out there.

It is essential to consider CGHM project's unique needs and limitations when deciding whether Scrum or XP is the best approach. Agile methodologies were developed first for software development projects, which has shown to be very successful. Therefore, projects with a highly stringent scope and development criteria need to be better candidates for an Agile strategy either scrum or XP. Although, these Agile principles, however, are used in various contexts and projects.

If CGHM conclude that an Agile methodology is the greatest fit for its project, CGHM will need to decide whether or not Scrum is the most appropriate framework for CGHM to use. Scrum is most effective when the project's requirements are vague, it will undergo frequent changes, and extensive testing is required.

Remember that more than picking the suitable methodology is needed to guarantee a successful project; what matters is putting that strategy into practice effectively. To achieve this goal, CGHM will need a thorough grasp of the technique they choose to use and other essential project management abilities. Successful project managers also have strong interpersonal and leadership abilities, the ability to analyze complicated situations and come up with creative solutions, and the flexibility to adapt to new situations and environments (Saleh et al., 2019).

As Bogojević, (2017) points out, this is why technical expertise is only one facet of the leadership abilities required to see a project through effectively. This is why the Project Management degree at Northeastern University heavily emphasizes developing skills like collaboration, communication, leadership, critical thinking, problem-solving, and organizational awareness, in addition to technical expertise.

Conclusion

Scrum is a product development framework that acts as a container for other methodologies. Within the Scrum framework, XP may be implemented. It is optional for a team to choose one framework over the other, Scrum or XP. It may be challenging to adhere to XP's norms and standards, most of which must be discussed. Incorporating XP into Scrum may seem like the next logical step for teams just starting with Scrum and wanting to become a professional Scrum Team.

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