PROJECT MANAGEMENT METHODOLOGIES FOR DEVOPS

1. Project Management Methodologies for DevOps

00:00 - 00:06

Project management is an essential part of DevOps because it helps the teams succeed.

2. An overview to project management

00:06 - 00:45

The Project Management Institute defines project management as the use of specific knowledge, skills, tools, and techniques to deliver something of value to people. It is vital to have defined rules and a framework for any team to thrive, regardless of its goals. Likewise, the software management teams need to have a defined structure to orchestrate efforts for collaboration. Project management is vital for DevOps as it defines how different teams will collaborate to deliver high-quality products while sticking to the agreed-upon timelines. It provides a structure for such cross-team collaboration. After all, this is what DevOps is all about, driving change productively and collaboratively.

3. Waterfall

00:45 - 01:34

There is extensive literature on Project Management and we will be covering the essential Project Management approaches and see how they apply to DevOps. The waterfall is an old methodology defining linear processes like Planning, Development, and Production, where software is planned, developed, and put into use. Once the goals of a stage are accomplished, the project moves to the next step. Once the project moves on, there is no return to an earlier stage. As the name suggests water cannot flow back up once it flows down a waterfall. The end product is achieved at the last stage of the project with all features and elements.

4. Agile

01:34 - 02:11

In contrast, with the Agile methodology, the project will move through a series of cycles throughout the project's lifetime. Each cycle has lighter goals like creating a Minimum Viable Product, adding features, and adding design elements. Teams are collaborating dynamically, as the name suggests. A Minimum Viable Product is the most basic functionality of a product. Each cycle consists of design, development, and review phases. After the review, if the work is not approved, the team returns to the design phase to improve and answer the feedback.

5. Choosing the right project management model

02:11 - 02:55

There is no clear winner between Agile and Waterfall, and it all depends on the specific needs of the project. Also, there are numerous parameters in deciding the right project management

methodology, like a team's skill set, budget, project complexity, and stakeholders' expectations. However, it is worth noting that Agile is the de facto standard for most Software Management teams, at least for recent years. The Agile philosophy is integral to DevOps, and their best practices are intertwined. There are numerous implementations of Agile. Next, we will examine the two most important ones: Scrum and Kanban.

6. Sprint

02:55 - 03:20

The main difference between Kanban and Scrum is related to Scrum's sprint structure. A sprint in Scrum is a two-to-four week timeframe with a light development goal for the team. While Scrum operates on sprints, Kanban operates on a continuous flow.

7. Scrum vs. Kanban

03:20 - 03:46

Scrum teams review improvements at the end of the sprints, whereas Kanban teams continuously track improvements via leveraging visualizations. Learning through experiences and reflecting on wins and losses are very important and central to the teams' continuous improvement. Furthermore, Scrum defines different user roles, like the Scrum Master and Product Owner, whereas Kanban works with a distributed, collective responsibility.

1. [1] https://www.atlassian.com/agile/kanban/kanban-vs-scrum

8. Agile wrap-up

03:46 - 04:09

Although there are many differences between Scrum and Kanban, it is essential to note that they are both under the umbrella of Agile methodology. DevOps is all about collaboration, and both of the systems enable cooperation. They are powerful Project Management approaches when correctly applied to suitable use cases.

9. Let's practice!

04:09 - 04:16

Now let's head off to the exercises and start putting project management into use.