DevOps vs Agile

DevOps and Agile are the two software development methodologies with similar aims, getting the end-product as quickly and efficiently as possible. While many organizations are hoping to employ these practices, there is often some confusion between both methodologies.

Can they work together, or should we choose one over the other?

Before moving further, take a glance at DevOps and Agile.

What is DevOps?

DevOps is a combination of two words, one is software Development, and second is Operations. This allows a single team to handle the entire application lifecycle, from development to **testing, deployment**, and **operations**. DevOps helps you to reduce the disconnection between software developers, quality assurance (QA) engineers, and system administrators.

DevOps promotes collaboration between Development and Operations team to deploy code to production faster in an automated & repeatable way.

DevOps helps to increase organization speed to deliver applications and services. It also allows organizations to serve their customers better and compete more strongly in the market.

DevOps can also be defined as a sequence of development and IT operations with better communication and collaboration.

DevOps has become one of the most valuable business disciplines for enterprises or organizations. With the help of DevOps, **quality**, and **speed** of the application delivery has improved to a great extent.

DevOps is nothing but a practice or methodology of making "**Developers**" and "**Operations**" folks work together. DevOps represents a change in the IT culture with a complete focus on rapid IT service delivery through the adoption of agile practices in the context of a system-oriented approach.

What is Agile?

Agile involves continuous iteration of development and testing in the **SDLC** process. Both development and testing activities are concurrent, unlike the waterfall model. This software development method emphasizes incremental, iterative, and evolutionary development.

Agile isn't defined by a set of ceremonies or specific development techniques. Rather, agile is a group of methodologies that demonstrate a commitment to tight feedback cycles and continuous improvement.

It breaks the product into small pieces and integrates them for final testing. It can be implemented in many ways, such as **Kanban, XP, Scrum**, etc.

The Agile software development focus on the four core values, such as:

- Working software over comprehensive documentation.
- Responded to change over following a plan.
- Customer collaboration over contract negotiation.
- Individual and team interaction over the process and tools.

Below are some essential differences between the DevOps and Agile:

Parameter	DevOps	Agile
Definition	DevOps is a practice of bringing development and operation teams together.	Agile refers to the continuous iterative approach, which focuses on collaboration, customer feedback, small, and rapid releases.

Purpose	DevOps purpose is to manage end to end engineering processes.	The agile purpose is to manage complex projects.
Task	It focuses on constant testing and delivery.	It focuses on constant changes.
Team size	It has a large team size as it involves all the stakeholders.	It has a small team size. The smaller the team, the fewer people work on it so that they can move faster.
Team skillset	The DevOps divides and spreads the skill set between development and the operation team.	The Agile development emphasizes training all team members to have a wide variety of similar and equal skills.
Implementation	DevOps is focused on collaboration, so it does not have any commonly accepted framework.	Agile can be implemented within a range of tactical frameworks such as **safe,** **scrum**, and **sprint**.

Duration	The ideal goal is to deliver the code to production daily or every few hours.	Agile development is managed in units of sprints. So this time is much less than a month for each sprint.
Target areas	End to End business solution and fast delivery.	Software development.
Feedback	Feedback comes from the internal team.	In Agile, feedback is coming from the customer.
Shift left principle	It supports both variations left and right.	It supports only shift left.
Focus	DevOps focuses on operational and business readiness.	Agile focuses on functional and non-functional readiness.
Importance	In DevOps, developing, testing, and implementation all are equally important.	Developing software is inherent to Agile.
Quality	DevOps contributes to creating better quality with automation and early bug removal. Developers need to follow	Agile produces better application suites with the desired requirements. It can quickly adapt according to

	Coding and best Architectural practices to maintain quality standards.	the changes made on time during the project life.
Tools	**Puppet, Chef, AWS, Ansible**, and team City OpenStack are popular DevOps tools.	**Bugzilla, Kanboard, JIRA** are some popular Agile tools.
Automation	Automation is the primary goal of DevOps. It works on the principle of maximizing efficiency when deploying software.	Agile does not emphasize automation.
Communication	DevOps communication involves specs and design documents. It is essential for the operational team to fully understand the software release and its network implications for running the deployment process.	Scrum is the most common method of implementing Agile software development. Scrum meetings are carried out daily.

Documentation	In DevOps, the process documentation is foremost because it will send the software to an operational team for deployment. Automation minimizes the impact of insufficient documentation. However, in the development of sophisticated software, it's difficult to transfer all the knowledge required.	The agile method gives priority to the working system over complete documentation. It is ideal when you are flexible and responsive. However, it can be harmful when you are trying to turn things over to another team for deployment.