DevOps vs Agile?

1-DevOps:

DevOps is a combination of two words, Development and Operations.

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

## 2-Agile:

The 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 on incremental, iterative, and evolutionary development.

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

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

**Key Differences Between Agile and DevOps**

- DevOps is a practice of bringing development and operations teams together whereas Agile is an iterative approach that focuses on collaboration, customer feedback and small rapid releases.

- DevOps focuses on constant testing and delivery while the Agile process focuses on constant changes.

- DevOps requires relatively a large team while Agile requires a small team.

- DevOps leverages both shifts left and right principles, on the other hand, Agile leverage shift-left principle.

- The target area of Agile is Software development whereas the Target area of DevOps is to give end-to-end business solutions and fast delivery.

- DevOps focuses more on operational and business readiness whereas Agile focuses on functional and non-function readiness.

## Difference between Agile and DevOps

| **Parameter** | **Agile** | **DevOps** |
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| What is it? | Agile refers to an iterative approach which focuses on collaboration, customer feedback, and small, rapid releases. | [DevOps](https://www.guru99.com/what-is-devops.html) is considered a practice of bringing development and operations teams together. |
| Purpose | Agile helps to manage complex projects. | DevOps central concept is to manage end-to-end engineering processes. |
| Task | Agile process focusses on constant changes. | DevOps focuses on constant testing and delivery. |
| Implementation | Agile method can be implemented within a range of tactical frameworks like a sprint, safe and scrum. | The primary goal of DevOps is to focus on collaboration, so it doesn’t have any commonly accepted framework. |
| Team skill set | Agile development emphasizes training all team members to have a wide variety of similar and equal skills. | DevOps divides and spreads the skill set between the development and operation teams. |
| Team size | Small Team is at the core of Agile. As smaller is the team, the fewer people on it, the faster they can move. | Relatively larger team size as it involves all the stack holders. |
| Duration | Agile development is managed in units of “sprints.” This time is much less than a month for each sprint. | DevOps strives for deadlines and benchmarks with major releases. The ideal goal is to deliver code to production DAILY or every few hours. |
| Feedback | Feedback is given by the customer. | Feedback comes from the internal team. |
| Target Areas | Software Development | End-to-end business solution and fast delivery. |
| Shift-Left Principles | Leverage shift-left | Leverage both shifts left and right. |
| Emphasis | Agile emphasizes on software development methodology for developing software. When the software is developed and released, the agile team will not care what happens to it. | DevOps is all about taking software which is ready for release and deploying it in a reliable and secure manner. |
| Cross-functional | Any team member should be able to do what’s required for the progress of the project. Also, when each team member can perform every job, it increases understanding and bonding between them. | In DevOps, development teams and operational teams are separate. So, communication is quite complex. |
| Communication | Scrum is most common methods of implementing Agile software development. Daily scrum meeting is carried out. | DevOps communications involve specs and design documents. It’s essential for the operational team to fully understand the software release and its hardware/network implications for adequately running the deployment process. |
| Documentation | Agile method is to give priority to the working system over complete documentation. It is ideal when you’re flexible and responsive. However, it can hurt when you’re trying to turn things over to another team for deployment. | In the DevOps, process documentation is foremost because it will send the software to the operational team for deployment. Automation minimizes the impact of insufficient documentation. However, in the development of complex software, it’s difficult to transfer all the knowledge required. |
| Automation | Agile doesn’t emphasize on automation. Though it helps. | Automation is the primary goal of DevOps. It works on the principle to maximize efficiency when deploying software. |
| Goal | It addresses the gap between customer need and development & testing teams. | It addresses the gap between development + testing and Ops. |
| Focus | It focuses on functional and non-function readiness. | It focuses more on operational and business readiness. |
| Importance | Developing software is inherent to Agile. | Developing, testing and implementation all are equally important. |
| Speed vs. Risk | Teams using Agile support rapid change, and a robust application structure. | In the DevOps method, the teams must make sure that the changes which are made to the architecture never develop a risk to the entire project. |
| Quality | Agile produces better applications suites with the desired requirements. It can easily adapt according to the changes made on time, during the project life. | DevOps, along with automation and early bug removal, contributes to creating better quality. Developers need to follow Coding and Architectural best practices to maintain quality standards. |
| Tools used | JIRA, Bugzilla, Kanboard are some popular Agile tools. | Puppet, Chef, TeamCity OpenStack, AWS are popular DevOps tools. |
| Challenges | The agile method needs teams to be more productive which is difficult to match every time. | DevOps process needs to development, testing and production environments to streamline work. |
| Advantage | Agile offers shorter development cycle and improved defect detection. | DevOps supports Agile’s release cycle. |