



Software Development

Methodology

Software development methodologies define how teams approach the software development process. The most commonly used methodologies are Waterfall, Agile, and DevOps.

The Waterfall model is a linear and sequential approach, where each phase of the SDLC must be completed before moving to the next. It is best suited for projects with clearly defined requirements and minimal expected changes. However, it lacks flexibility, making it less ideal for dynamic projects.

Example: Healthcare, military and aerospace industries often use Waterfall due to strict regulatory requirements.

The Agile methodology focuses on iterative, flexible development, where software is built in small increments called “sprints.” Agile allows for continuous feedback, making it more adaptable to changing requirements. It is widely used in modern software development, especially in startups and tech companies. Example: Spotify and Facebook use Agile to deliver frequent updates and improve user experience.

DevOps integrates software development (Dev) and IT operations (Ops) to enable continuous development, deployment, and monitoring. It relies on automation tools to speed up software releases while ensuring stability and security. Example: Netflix deploys updates thousands of times per day using DevOps.

Each methodology has its strengths and is chosen based on the project’s complexity, team structure, and business needs. Which methodology do you think works best for large enterprises versus small startups?