**What Is Agile Methodology?**

Agile is a **flexible, iterative approach to project management** that emphasizes:

* **Customer collaboration**
* **Rapid delivery**
* **Continuous improvement**
* **Adaptability to change**

Instead of building everything at once, Agile teams deliver small, working increments of a product in short cycles called **sprints** (usually 2–4 weeks).

**Advantages of Agile**

* **Faster delivery of value** through incremental releases
* **High adaptability** to changing requirements
* **Improved customer satisfaction** via frequent feedback
* **Better team collaboration** and ownership
* **Early detection of issues** through continuous testing

**Disadvantages of Agile**

* **Requires experienced teams** to self-manage effectively
* **Scope creep risk** due to evolving requirements
* **Less predictability** in timelines and budgets
* **Daily meetings** can feel excessive for some
* **Not ideal for fixed-scope, fixed-budget projects**

**Role of the Scrum Master**

The **Scrum Master** is the **facilitator and coach** of the Agile team. They ensure the team follows Scrum practices and help remove obstacles.

**Key Responsibilities:**

* Facilitate Scrum ceremonies (daily stand-ups, sprint planning, retrospectives)
* Remove impediments that block progress
* Coach the team on Agile principles
* Foster collaboration and transparency
* Shield the team from external distractions

They’re not a boss—they’re more like a guide who keeps the team aligned and empowered.

**The 12 Principles of Agile Manifesto**

1. **Customer satisfaction** through early and continuous delivery
2. **Welcome changing requirements**, even late in development
3. **Deliver working software frequently**
4. **Business and developers must collaborate daily**
5. **Build projects around motivated individuals**
6. **Face-to-face conversation** is the best form of communication
7. **Working software is the primary measure of progress**
8. **Sustainable development** with a constant pace
9. **Continuous attention to technical excellence**
10. **Simplicity**—maximize work not done
11. **Self-organizing teams** produce the best results
12. **Regular reflection** to improve effectiveness

The 12th principle is especially important—it’s the heartbeat of Agile. Teams **reflect at regular intervals** (usually during retrospectives) to improve their processes and collaboration.

**How Agile Teams Plan Their Work**

Agile planning is **iterative and layered**, not rigid. It happens at multiple levels:

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| --- | --- |
| **Planning Level** | **Description** |
| **Vision** | Define the big-picture goal or product vision |
| **Roadmap** | Outline major milestones and features |
| **Release Planning** | Plan what features will be delivered in each release |
| **Iteration Planning** | Break down work for each sprint (2–4 weeks) |
| **Daily Planning** | Daily stand-ups to track progress and adjust tasks |

Agile teams use tools like **user stories**, **backlogs**, and **burndown charts** to stay organized and focused. Planning is ongoing and adaptive—teams adjust based on feedback, progress, and changing priorities.