*What is Agile Methodology?*

*Agile methodology is a project management approach that allows successful and efficient execution of the project while emphasizing the improvement of a project and team collaboration. The approach is applicable in software development for flexibility, customer satisfaction, and collaboration. It divides projects into smaller phases and guides teams through cycles of planning, execution, and evaluation. The Agile framework is an iterative methodology. After every sprint, teams reflect and look back to see if there was anything that could be improved so they can adjust their strategy for the next sprint.*

*Agile methods or Agile processes generally promote a disciplined project management process that encourages frequent inspection and adaptation, a leadership philosophy that encourages teamwork, self-organization and accountability, a set of engineering best practices intended to allow for rapid delivery of high-quality software, and a business approach that aligns development with customer needs and company goals.*

*What is the Agile Manifesto?*

*The Agile Manifesto is a document that focuses on four values and 12 principles for Agile software development.*

*4 pillars of Agile – In the Agile Manifesto, there are four main values of Agile project management*

* *Individuals over processes and tools: Agile teams value team collaboration and teamwork over working independently.*
* *Working software over comprehensive documentation: The software that Agile teams develop should work. Additional work, like documentation, is not as important as developing good software.*
* *Customer collaboration over contract negotiation: Agile teams allow customers to guide where the software should go. Therefore, customer collaboration is more important than the finer details of contract negotiation.*
* *Responding to change over following a plan: One of the major benefits of Agile project management is that it allows teams to be flexible. This framework allows for teams to quickly shift strategies and workflows without derailing an entire project.*

*12 Agile principles – The four values of Agile are the pillars of Agile methodology. From those values, the team developed 12 principles.*

1. *Satisfy customers through early, continuous improvement and delivery - When customers receive new updates regularly, they're more likely to see the changes they want within the product. This leads to happier, more satisfied customers—and more recurring revenue.*
2. *Welcome changing requirements, even late in the project - The Agile framework is all about adaptability. In iterative processes like Agile, being inflexible causes more harm.*
3. *Deliver value frequently- Delivering value to your customers or stakeholders frequently makes it less likely for them to churn.*
4. *Break the silos of your projects- The goal is for people to break out of their own individual projects and collaborate more frequently.*
5. *Build projects around motivated individuals- Agile works best when teams are committed and actively working to achieve a goal.*
6. *The most effective way to communicate is face-to-face- If you’re working on a distributed team, spend time communicating in ways that involve face-to-face communication.*
7. *Working software is the primary measure of progress- The most important thing that teams should strive is the product. The goal here is to prioritize functional software over everything else.*
8. *Maintain a sustainable working pac-. Some aspects of Agile can be fast paced, but it shouldn't be so fast that team members burn out. The goal is to maintain sustainability throughout the project.*
9. *Continuous excellence enhances agility- If the team develops excellent code in one sprint, they can continue it to the next. Continually creating great work allows teams to move faster in the future.*
10. *Simplicity is essential- Sometimes the simplest solution is the best solution. Agile aims to not overcomplicate things and find simple answers to complex problems.*
11. *Self-organizing teams generate the most value- Proactive teams become valuable assets to the company as they strive to deliver value.*
12. *Regularly reflect and adjust your way of work to boost effectiveness- Retrospective meetings are a common Agile practice. It's a dedicated time for teams to look back and reflect on their performance and adapt their behaviours for the future.*

*Cons of Agile –*

* *Poor resource planning - Because Agile is based on the idea that teams won’t know what their end result (or even a few cycles of delivery down the line) will look like from day one, it’s challenging to predict efforts like cost, time and resources required at the beginning of a project.*
* *Limited documentation - In Agile, documentation happens throughout a project, and often “just in time” for building the output, not at the beginning. As a result, it becomes less detailed and often falls to the back burner.*
* *Fragmented output -Incremental delivery may help bring products to market faster, due to which the complete output often becomes very fragmented rather than one cohesive unit.*
* *No finite end - The fact that Agile requires minimal planning at the beginning makes it easy to get sidetracked delivering new, unexpected functionality. Additionally, it means that projects have no finite end, as there is never a clear vision of what the “final product” looks like.*
* *Difficult measurement - Since Agile delivers in increments, tracking progress requires you to look across cycles. And the “see-as-you-go” nature means you can’t set many KPIs at the start of the project. That long game makes measuring progress difficult.*

*Mitigating the disadvantages of Agile methodology requires taking more of a Lean approach by emphasizing the importance of:*

* *Delivering value through a quality end product rather than simply delivering a working product.*
* *Managing a clear process for delivering that product, not an uncertain route determined along the way.*