**Agile Principles:**

**The Agile Manifesto also includes twelve principles that guide Agile development, including:**

* **Welcoming changing requirements, even late in development.**
* **Delivering working software frequently, in short iterations.**
* **Business and development teams working together daily throughout the project.**
* **Building projects around motivated individuals and giving them the environment and support they need.**
* **Reflecting regularly on how to become more effective, then adjusting behavior accordingly.**

**Various Agile methodologies (such as Scrum, Kanban, XP, Lean, etc.) have evolved based on these Agile principles, offering specific frameworks, practices, and techniques to implement Agile principles effectively.**

**Agile methodologies promote adaptive planning, continuous improvement, collaboration, and customer involvement, enabling teams to deliver high-quality software products that meet customer needs while remaining responsive to changes in the development process.**

**What is Agile Methodology?**

**AGILE methodology is a practice that promotes continuous iteration of development and testing throughout the software development lifecycle of the project. Both development and testing activities are concurrent unlike the Waterfall model.**

**What agile development really is?**

**It is a collection of software development methodology which works on an iterative and incremental method building the software from the very initiation of the project development instead of building all the software at once. Agile discovers what the customer and how to build the codeand change things along the way.Agile works by breaking down the project into smaller chunks and then continuously delivering them in short two weeks cycles called iterations.**

**In an agile development process, solutions are obtained by self-organizing teams which collaborate, discuss, and constantly strive to improve their working process and become more effective in what they do.**

**Agile model believes that every project needs to be handled differently and the existing methodsneed to be tailored to best suit the project requirements. In Agile, the tasks are divided to timeboxes (small time frames) to deliver specific features for a release.**

**Iterative approach is taken and working software build is delivered after each iteration. Each buildis incremental in terms of features; the final build holds all the features required by the customer.**

**Here is a graphical illustration of the Agile Model −**

**The Agile thought process had started early in the software development and started becomingpopular with time due to its flexibility and adaptability.**

**What is Waterfall Methodology Project Management?**

**This is a sequential project management approach that includes some phases each covering a separate part of product development. As it is a sequential approach, so a new phase cannot be started before completing the previous phase, and due to this it is really hard to implement any changes after the phase has been completed so it is not suitable for complex projects.**