

Agile methodology is a popular approach to software development that emphasizes flexibility, collaboration, and continuous improvement.

**TCS (Tata Consultancy Services)** is a large global IT services and consulting company that has been using agile methodologies for many years to help its clients achieve their software development goals.

### **How agile methodology works at TCS .**

1. **Understanding the Agile Manifesto:** At TCS, the first step in adopting agile methodology is to understand the Agile Manifesto, which is a set of guiding principles for agile development. The manifesto emphasizes delivering working software frequently, collaborating with customers and stakeholders, responding to change, and valuing individuals and interactions over processes and tools.
2. **Scrum Framework:** TCS uses the Scrum framework, which is a popular agile methodology that provides a set of roles, events, and artifacts to help teams organize and manage their work. The Scrum framework includes the following components:
  - **Scrum roles:** The Scrum team consists of a product owner, a development team, and a Scrum master. The product owner is responsible for defining the product backlog, which is a prioritized list of features and requirements for the project. The development team is responsible for designing, developing, and testing the software. The Scrum master is responsible for facilitating the Scrum events and helping the team to follow the Scrum framework.
  - **Scrum events:** The Scrum framework includes several events, including the sprint, sprint planning, daily scrum, sprint review, and sprint retrospective. The sprint is a time-boxed period of one to four weeks during which the development team works on a set of features from the product backlog. The sprint planning meeting is held at the beginning of each sprint and involves the product owner and development team agreeing on the goals and scope of the sprint. The daily scrum is a short daily meeting in which the team members update each other on their progress and identify any obstacles. The sprint review is held at the end of each sprint and involves the team demonstrating the completed work to the product owner and other stakeholders. The sprint retrospective is held after the sprint review and provides an opportunity for the team to reflect on the sprint and identify areas for improvement.
  - **Scrum artifacts:** The Scrum framework includes several artifacts, including the product backlog, the sprint backlog, and the increment. The product backlog is a prioritized list of features and requirements for the project. The sprint backlog is a subset of the product backlog that the team commits to completing during the sprint. The increment is the sum of all the completed sprint backlogs and represents the current state of the software.

3. Agile Tools and Techniques: TCS also uses a range of agile tools and techniques to support its agile development process. Some of the key tools and techniques used at TCS include:
  - Agile planning and tracking tools, such as Jira, Trello, and Microsoft Azure DevOps, which help teams to manage their backlogs, track their progress, and collaborate with stakeholders.
  - Agile testing practices, such as automated testing, test-driven development, and continuous integration and deployment, which help teams to ensure that their software is of high quality and can be delivered quickly and reliably.
  - Agile coaching and training, which help teams to learn and apply agile principles and practices effectively.
4. Agile Culture: Finally, TCS also places a strong emphasis on building an agile culture that supports agile development. This includes promoting collaboration, communication, and trust between team members and with customers and stakeholders, as well as encouraging experimentation, continuous learning, and continuous improvement. TCS also values diversity, inclusion, and empathy, recognizing that these qualities are essential for building strong and effective agile teams.