**Agile Best Practices:**

To attain agility(rapid and adaptive response to changes) we use agile best practices.

Following are the best practices of agile.

1. Iterations.
2. Customer-oriented approach.
3. Product backlog.
4. User stories.
5. Agile roles.
6. Value stream analysis.
7. Timeboxing.
8. Scrum meetings.
9. Sprint demo meetings.
10. Retrospective meetings.
11. Integration.
12. Test-driven development.
13. Burndown chart.
14. Automated tests.
15. Requirement prioritization.
16. In-pairs programming.
17. Release planning.
18. Refactoring.
19. Small release cycles.
20. Coding standard
21. Collective ownership
22. Behaviour driven development
23. Continuous integration
24. Document late
25. Extensive use of design patterns

**Iteration:**

An iteration, in the context of an Agile project, is a [timebox](http://guide.agilealliance.org/guide/timebox.html) during which development takes place, the duration of which:

* may vary from project to project, usually between 1 and 4 weeks
* is in most cases fixed for the duration of a given project

A key feature of Agile approaches is the underlying assumption that a project consists exclusively of a sequence of iterations, possibly with the exception of a very brief “vision and planning” phase prior to development, and a similarly brief “closure” phase after it.

In general iterations are aligned with calendar weeks, often starting on Mondays, and ending on Fridays; this is more a matter of convenience than an explicit recommendation and many teams adopt different conventions.

The fixed length of iterations gives teams a simple way to obtain, based on [velocity](http://guide.agilealliance.org/guide/velocity.html) and the amount of work remaining, a usually accurate (though not very precise) estimation of the project’s remaining duration.

Iteration execution is the process of how the work takes place. During the iteration, the team completes the ‘do‘ portion of the cycle by building and testing the new functionality. Teams deliver Stories incrementally, demoing their work to the Product Owner as soon as they are done, enabling teams to arrive at the iteration review ready to show their completed work.  
The iteration review is the ‘check‘ step in the cycle. This review is where the teams demonstrate a tested increment of value to the Product Owner, and other relevant stakeholders,   
and receive feedback on what they’ve produced. The iteration review provides the opportunity to assess progress as well as make any adjustments ahead of the next iteration. Some stories will be accepted; others will be refined by the insights gained during the iteration. The team will then do some final backlog refinement for the upcoming iteration planning.

Empowering Agile teams to focus on rapid value delivery fuels them with energy, motivation, and purpose. It instils a better sense of mission than traditional management and development models. The centrepiece of this approach is developing high-quality system increments every iteration. Teams employ a variety of practices to achieve that result, but the focus is always the same: to deliver the stories they committed to during iteration planning to meet their Iteration Goals.   
The iteration retrospective is the ‘adjust‘ step for the overall iteration. Here, the team evaluates its process and reviews any improvement stories it had from the previous iteration. They identify new problems and their causes—as well as emphasizing bright spots—and create improvement stories that enter the team backlog for the next iteration. This regular reflection is one of the ways to ensure relentless improvement is happening within each team. Iteration retrospectives may also identify systemic problems that will need to be addressed at the next Inspect and Adapt (I&A) event.