

AGILE DEVELOPMENT

Agile development follows an incremental approach towards development. It is a set of software development procedures based upon incremental development, in which cross functional teams work around an evolving product in which the requirements keep changing over time, encouraging constant feedback from the user and improvement in the development cycle. The main idea of each increment is to create a high-quality product and to do so business stakeholders and developers should work together; which encourages teamwork, accountability and face to face communication. Software's developed using agile development method can have one or more iterations in which the whole product is delivered at the ending iteration. Scrum, Lean and Kanban are some of the popular agile development frameworks. Agile development model was developed when people faced some shortcomings with waterfall model.

Comparing Agile and Waterfall model:

- Agile uses number of iteration to completed its development life cycle whereas waterfall model uses separate processes to complete its cycle.
- Agile development is used when the requirements of a user is not completely known so they can update the requirements later when they are more known but in waterfall all the requirements should be known at first and it is very costly to change the requirements later.
- Waterfall model produces somewhat better quality of product than the agile model but agile is much faster which is why it is used in rapid production.
- Agile development requires skills programmers who can adapt to the changing requirements and who can think independently whereas waterfall model is easy to understand to people new to development.
- The product may become very different than what was originally planned in agile development than in waterfall model.
- Problems that can arise later during development stage can be researched and eliminated in early stages in waterfall model but in agile development the possible issues are not properly researched which can cause delay in development.
- In agile development, incomplete software is provided to user and feedback is taken to check whether the product is meeting the requirements or not in development stages, but in waterfall model the product is not delivered until it is late.
- There is proper documentation of each process in waterfall model but in agile development documentation may be neglected.