**WATER FALL**

The **waterfall model** is a breakdown of project activities into linear [sequential](https://en.wikipedia.org/wiki/Sequence) phases, where each phase depends on the deliverables of the previous one and corresponds to a specialization of tasks.[[1]](https://en.wikipedia.org/wiki/Waterfall_model#cite_note-:0-1) The approach is typical for certain areas of [engineering design](https://en.wikipedia.org/wiki/Engineering_design). In [software development](https://en.wikipedia.org/wiki/Software_development_process),[[1]](https://en.wikipedia.org/wiki/Waterfall_model#cite_note-:0-1) it tends to be among the less iterative and flexible approaches, as progress flows in largely one direction ("downwards" like a [waterfall](https://en.wikipedia.org/wiki/Waterfall)) through the phases of conception, initiation, [analysis](https://en.wikipedia.org/wiki/Analysis), [design](https://en.wikipedia.org/wiki/Software_design), [construction](https://en.wikipedia.org/wiki/Software_construction), [testing](https://en.wikipedia.org/wiki/Software_testing), [deployment](https://en.wikipedia.org/wiki/Implementation) and [maintenance](https://en.wikipedia.org/wiki/Software_maintenance).

The waterfall development model originated in the [manufacturing](https://en.wikipedia.org/wiki/Manufacturing) and [construction](https://en.wikipedia.org/wiki/Construction) industries,[] where the highly structured physical environments meant that design changes became prohibitively expensive much sooner in the development process. When first adopted for software development, there were no recognised alternatives for knowledge-based creative work.

**AGILE**

Agile methodology is a**project management framework**that breaks projects down into several dynamic phases, commonly known as sprints. 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 VS WATER FALL**.

* Agile is an incremental and iterative approach; Waterfall is a linear and sequential approach.
* Agile separates a project into sprints; Waterfall divides a project into phases.
* Agile helps complete many small projects; Waterfall helps complete one single project.
* Agile introduces a product mindset with a [focus on customer satisfaction](https://instasize.com/blog/5-fundamentals-to-boost-your-customer-focus); Waterfall focuses on successful project delivery.
* Requirements are prepared every day in Agile, while requirements are prepared once at the start in Waterfall.
* Agile allows requirement changes at any time; Waterfall avoids scope changes once the project starts.
* Testing is performed concurrently with development in Agile; testing phase comes only after the build phase in a Waterfall project.
* Test teams in Agile can take part in requirements change; test teams in Waterfall do not get involved in requirements change
* Agile enables the project team to operate without a dedicated project manager; Waterfall requires a project manager who plays an essential role in every phase.
* **Agile**Instead of planning for the whole project, it breaks down the development process in small increments completed in iterations, or short time frames. Each iteration includes all SDLC phases such that a working product is delivered at the end. After several iterations, a new or updated product is released **WHILE** **Water Fall** specialized tasks completed in one phase need to be reviewed and verified before moving to the next phase. It is a linear and sequential approach, where phases flow downward (waterfalls) to the next