Development Methodologies

Welcome to our exciting world of software development.

If you were previously involved in software development, you probably realized first hand the importance of methodology to develop an effective (the right solution) and efficient (minimized cost) solution.

Understanding the methodology will give you the comfort level you need to participate and engage fully in the development exercise.

The following is a simplified introduction of two methodologies, the Waterfall and the Agile to manage our projects.

Please review and let's have a conversation on which one is the most compatible with your needs.

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Good to know…

During our free workshop, We will be more than happy to elaborate on the development methodologies and answer your concerns.

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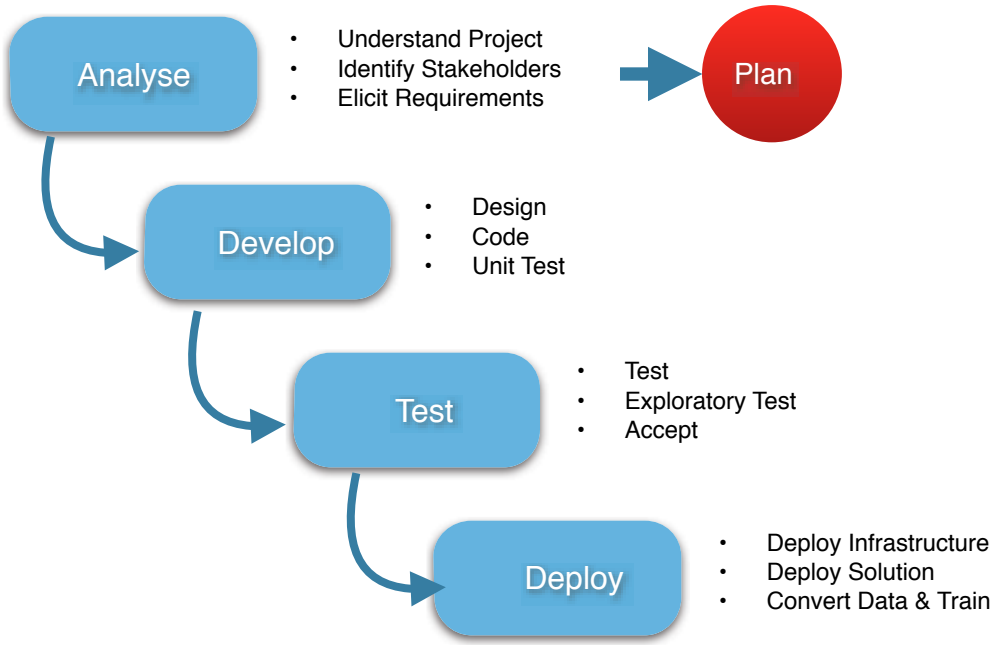
Waterfall: Model

The Waterfall model can essentially be described as a linear model of software design.

Development flows sequentially from start point to end point, with several different stages:
Initiation, Analysis, Development , Testing and Deployment.
The emphasis of Waterfall is the project **PLAN,** therefore before beginning any kind of development there needs to be a clear plan and a clear vision.



Waterfall: Pros

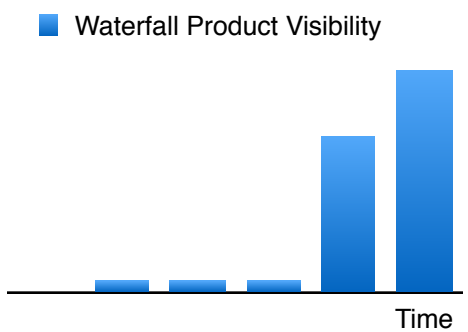
Because the Waterfall method requires upfront, extensive planning, it is,

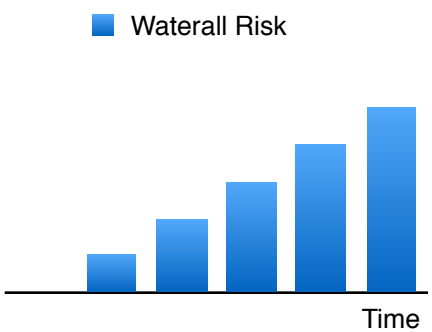
- Easy to understand
- Early estimate of required resources
- Simpler to manage

Waterfall: Cons

The Waterfall method is rigid. Altering the project design at any stage in the project can be challenging and costly.

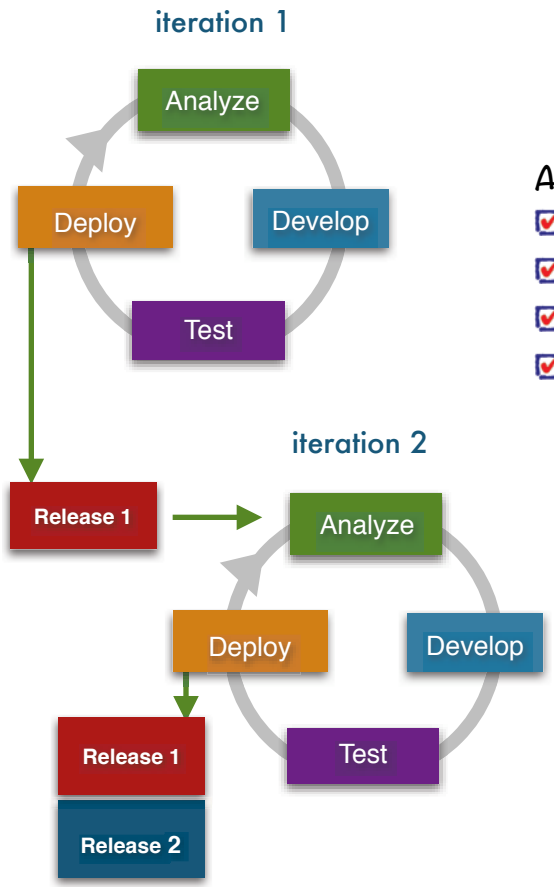
- Requirements must be specified before programming begins
- Documentation heavy
- Low level of Flexibility
- Little transparency for stakeholders





Agile: Model

Agile method proposes an incremental and iterative approach to software design. It break the tasks into small increments with minimal planning.
Iterations are short time frames that typically last from one to four weeks. Each iteration involves a cross-functional team working in all functions: planning, requirements analysis, design, coding and testing.
The goal is to have an available release (with minimal bugs) at the end of each iteration.



Agile Manifesto

- ☑ Individuals and Interactions over processes and tools
- ☑ Working Software over comprehensive documentation
- ☑ Customer collaboration over contract negotiation
- ☑ Responding to change over following a plan

Agile: Pros

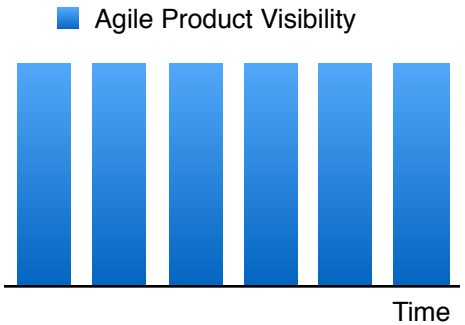
Agile offers an incredibly flexible design model, promoting adaptive planning and evolutionary development.

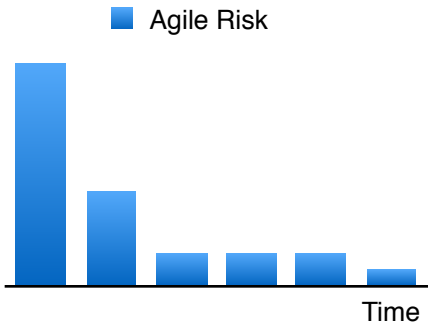
- Change to Requirements is expected and welcomed
- Testing is integrated with development
- Reduced project Risk
- High Product visibility
- Perfect if Requirements are unclear at the start.

Agile: Cons

Though highly flexible, Agile simply doesn't have the structure that the Waterfall method has.

- Agile projects tend to be hard to plan, from timelines to budgets.
- Active user involvement and intense collaboration are required throughout the Agile process.





So, What's Better?

When it comes down to it, neither the Agile method nor the Waterfall method is inherently better than the other.

That being said, each method does have its uses. Waterfall tends to be best for static projects, where it's not likely that many changes will be made throughout the development process. In contrast, Agile tends to be a better option for projects where changes are likely to be made during the design process.

Though, keep in mind that these are just rough guidelines and suggestions. Really, when it comes to choosing a method there is not a right or wrong choice. You just need to understand which method is better suited to your project and your needs.