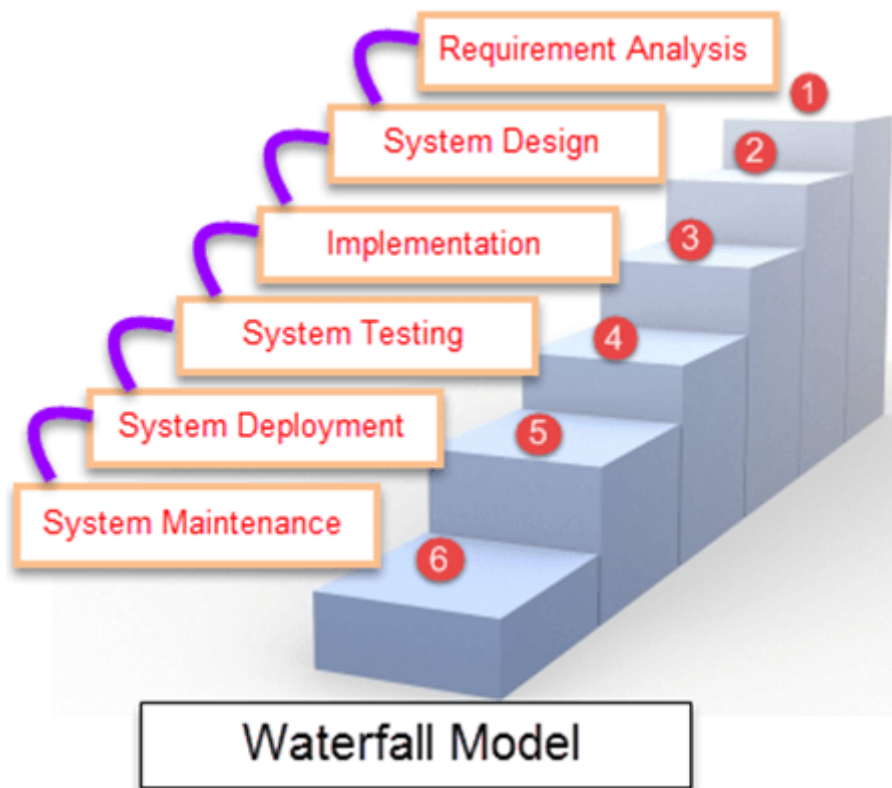


What is Waterfall Model in SDLC? Advantages & Disadvantages

What is The Waterfall Model?

Waterfall model is the simplest model of software development paradigm. All the phases of SDLC will function one after another in linear manner. That is, when the first phase is finished then only the second phase will start and so on.



Different Phases of Waterfall Model in Software Engineering

Different phases	Activities performed in each stage
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Requirement Gathering stage	<ul style="list-style-type: none">During this phase, detailed requirements of the software system to be developed are gathered from client
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Design Stage

- Plan the programming language, for Example [Java](#), [PHP](#), .net
- or database like Oracle, MySQL, etc.
- Or other high-level technical details of the project

Built Stage

- After design stage, it is built stage, that is nothing but coding the software

Test Stage

- In this phase, you test the software to verify that it is built as per the specifications given by the client.

Deployment stage

- Deploy the application in the respective environment

Maintenance stage

- Once your system is ready to use, you may later require change the code as per customer request

When to use SDLC Waterfall Model

Waterfall model can be used when

- Requirements are not changing frequently
- Application is not complicated and big
- Project is short
- Requirement is clear
- Environment is stable
- Technology and tools used are not dynamic and is stable
- Resources are available and trained

Advantages and Disadvantages of Waterfall-Model

Advantages	Dis-Advantages
<ul style="list-style-type: none">• Before the next phase of development, each phase must be completed	<ul style="list-style-type: none">• Error can be fixed only during the phase
<ul style="list-style-type: none">• Suited for smaller projects where requirements are well defined	<ul style="list-style-type: none">• It is not desirable for complex project where requirement changes frequently
<ul style="list-style-type: none">• They should perform quality assurance test (Verification and Validation) before completing each stage	<ul style="list-style-type: none">• Testing period comes quite late in the developmental process
<ul style="list-style-type: none">• Elaborate documentation is done at every phase of the software's development cycle	<ul style="list-style-type: none">• Documentation occupies a lot of time of developers and testers
<ul style="list-style-type: none">• Project is completely dependent on project team with minimum client intervention	<ul style="list-style-type: none">• Clients valuable feedback cannot be included with ongoing development phase
<ul style="list-style-type: none">• Any changes in software is made during the process of the development	<ul style="list-style-type: none">• Small changes or errors that arise in the completed software may cause a lot of problems