

WHAT IS WATERFALL MODEL IN (SDLC) ?

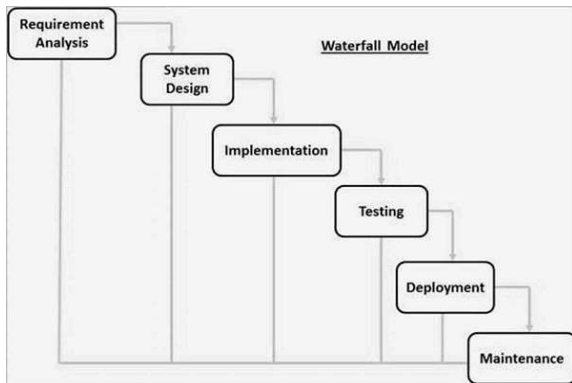
Waterfall model is a classic software development methodology. It was first introduced by Winston W. Royce in 1970. It is a standard & traditional method to develop a software

The waterfall model is a linear sequential development model

The water fall model follows the cascading structure

Phases of Waterfall Model

There are six phases in the waterfall model



1. Requirement analysis : The first phase involves gathering requirements from clients and analyzing them to understand the scope and objectives of the project.

The business analyst and the project manager they will take the requirement from the clients. They prepare a SRS (software request specifications) report

2. System design : Once the requirements are understood, the design phase begins. This involves creating a detailed design document that outlines the software architecture, user interface.

They will do high level design and low level design
Designing will be done as per SRS document

3. Implementation : based on the designed document coding and development will be done or take place and the implementation will start

4. Development : The Development phase includes implementation involving coding the software based on the design specifications. This phase also includes unit testing to ensure that each component of the software is working as expected.

5. Testing : the testing is done to ensure there no bugs or problem in an software or an code and ensure the requirements of the clients

6. Maintenance : The final phase of the Waterfall Model is maintenance, which involves fixing any issues that arise after the software has been deployed and ensuring that it continues to meet the requirements over time.

THE ADVANTAGES OF THE WATERFALL MODEL

1. It is the base model for all the software development

2. The waterfall model delivers a good quality product because every phase a clear documentation
3. It is simple and easy model to use
4. It is best for the small projects

THE DISADVANTAGES OF THE WATERFALL MODEL

1. No feedback is taken in the middle of the project
2. It is difficult to accommodate Changes in the project.
3. No parallelism in the project it follows a sequential order
4. High risk of bugs and error in the software
5. Most of the efforts are done in maintenance only and the cost of the project may increase due to high maintenance

WHAT IS AGILE METHOD IN (SDLC)?

The Agile Model was primarily designed to help a project adapt quickly to change requests as per the requirements of the clients. the main aim of the Agile model is to facilitate quick project completion. It is an incremental model and also interactive model to develop a software.

Most no of the company follows this model for fast deployment and time consumed is very less and has more productivity.

In the Agile model, the requirements are decomposed into many small parts that can be incrementally developed.

Agile methodology

1. Requirement analysis
2. Planning analysis
3. Design
4. Coding
5. Testing
6. Release and deployment
7. Feedback

The three basic principles of agile

1. The customer is no need to wait for the whole project to complete or the software to be developed
2. We can deliver the piece of software which contains some functionalities that can be developed and tested
3. We can adopt or accept the requirement changes at anytime of development from feedback of the client or the customer

THE ADVANTAGES OF AGILE MODEL

1. Customer or the client satisfaction is high in this model
2. The less planning is required in this model
3. Releases will be done with in a short period of time
4. This model works on the feedback of the end user or the customer or client
5. It improves the product quality
6. Functions can be created and tested quickly

THE DISADVANTAGES OF AGILE MODEL

1. It is not suitable for handling complex dependencies.
2. The documentation is less in the agile model and it leads confusion to the colleagues /team members etc
3. Frequent changes in the software causes the high cost of the project
4. Maintenance problem

CLOUD

The cloud is a vast online storage space where the people and the businesses store their files and applications, accessible from anywhere with an internet connection.

What is cloud computing ?

Cloud computing simply refers to the use of computing services over the internet, including storage, databases, software, and analytics. It is an place where we can store your data and we can aslo process the data from any where in the world using the internet

What are the top cloud providers?

This cloud platform are based on the report of 2024

1. Amazon Web Services (AWS) – 31-32%
2. Microsoft Azure – 20-25%
3. Google Cloud – 12-13%
4. Alibaba Cloud – 4%
5. Oracle Cloud – 3%
6. Salesforce – 3%
7. IBM Cloud – 2%
8. Tencent Cloud – 2%
9. Huawei Cloud – 2%
10. Other Providers –

Cloud computing types

There are two types of cloud computing

1. Deployment model
2. Service model

In the deployment model there are four types of the cloud

1. Public cloud
2. Private cloud
3. Hybrid cloud
4. Community cloud

In the service model there are four types

1. SAAS : software as a service
2. IAAS : infrastructure as a service
3. PAAS : platform as a service
4. FAAS : function as a service (serverless computing)

1. Public cloud : Public clouds provide the resources, such as compute, storage, network, develop-and-deploy environments, and applications over the internet. It is easily available to the public over the internet. It is expensive to use or to setup over the internet . it provides a service called pay as u use .

2. Private cloud : the private clouds are built and run and used by an organisation .it offers a hosted servers to limited no of people so it minimizes the security concerns. The private cloud gives the direct control over the data .

3. Hybrid cloud : it the combination of the both public and the private cloud .

4. Community cloud : in this two or more organisations use the same cloud platform to store the data to reduce the cost of the storing the data in the cloud.