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Spiral Model

It is a step-by-step procedure or a standard procedure to develop a software and in order to avoid the drawbacks of water fall model we will use this spiral model.

Spiral model is mainly used whenever there is a dependency among the modules.

Spiral model is also known as iterative and incremental model.

Advantages

1.Requirement changes are allowed after every cycle.

2.It is a controlled model.

Disadvantages

1.Every cycle of spiral model looks like a waterfall model.

2.Requirement collection changes are not allowed in between of the cycle, allowed only after a cycle completion.

3. Here also, requirement collection, analysis, design phases are not tested first.

WaterFall Model

It is a step-by-step procedure or a standard procedure to develop a software. It is also known as basic model, traditional model and linear sequential step by step model. There are 7 phases present in this cycle. They are

1.Requirement collection

2.Analysis (Feasibility study)

3.Designing (High level and Low-level design)

4.Coding

5.Testing

6.Installation

7.Maintainance

Advantages

1.Quality will be good in this model.

2.If requirement collection changes are not allowed, chances of debugging will be very less (Advantage for the developer).

3.Initial Investment will be less since testers are hired at the later stage in the cycle.

Disadvantages

1.Requirement collection changes are not allowed

2.Time consumption will be more

3.Total investment will be more

4.Testing will be done only after coding phase is completed, they won’t test anything in the first, second phases in the life cycle.

5. waterfall model takes very long period to produce/release a software.

Prototype Model

Prototype model is called as dummy model prepared by web developers or content developers in which they will convert the text format into image format using various tools like adobe, html etc.

Advantages

1.This model sets the high expectations to the customer

2.Customer will get to see the software in early stage by creating a dummy model

3.Requirement collection changes are allowed on this model

Disadvantages

1.Takes more time

2.Total Investment will be more.

V Model (Verification and Validation model)

The reason we use this model is to avoid and rectify the drawbacks of waterfall and spiral model

It is one of the important models in software development life cycle.

Verification

Verifying all the things according to the customers requirement is called as verification.

Verification is done by the test engineers, and it is also done before the software is developed.

Validation

Testing the application by executing the test cases is called as validation

Validation is also done by the test engineers, but it is done after the software is developed.

Advantages

1.Each stage is tested.

2.Takes less time consumption.

3.Finding errors/defects will be less.

Disadvantages

1.Documenation will be more

2.Initial Investment will be more.

Agile Model

Agile model is also known as iterative and incremental approach model, and it is a model where company should follow to give the customer produced project in a very short period. The main goal of the agile model is to deliver the requirements produced by the customer in a short period of time to gain customers satisfaction. Good communication will be there in this model across managers, customers, developers and testers etc.

Advantages

1.Requirement collection changes are allowed every time (like whenever you want).

2.The software releases will be very fast.

3.Customer satisfaction will be more

4.Good communication will be there in this model.

5.It is a very easy model to adopt.

Disadvantages

1.This model focuses less on design and documentation

2.Very difficult to handle long term projects

3.Agile model is less scope for Junior test engineers and for Junior developers when compared with the seniors TE’s and Developers.