SDLC MODELS:- by vishal yadav

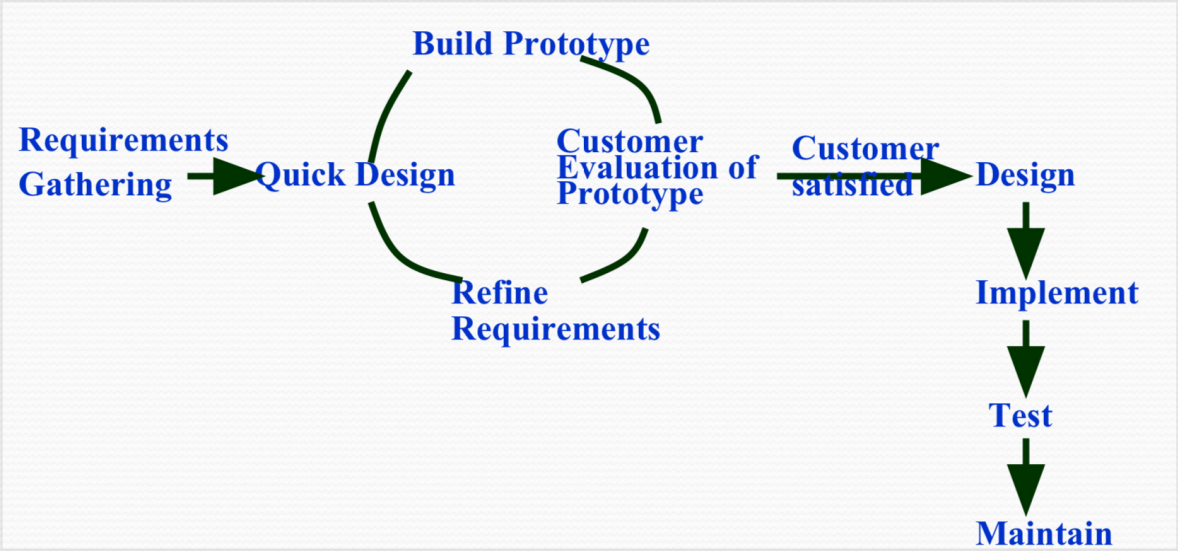
1. Build and fix model
2. Waterfall model
   - Classical
   - Iterative
   - V shape
3. prototyping
4. Evolutionary
5. Icremental model
6. Spiral model

Q-1 wha is prototyping model. What is the effect of designing a prototype on the overall cost of the project?

Ans1-

Features:-

- The Prototyping Model is one of the most popularly used Software Development Life Cycle Models (SDLC models). This model is used when the customers do not know the exact project requirements beforehand. In this model, a prototype of the end product is first developed, tested and refined as per customer feedback repeatedly till a final acceptable prototype is achieved which forms the basis for developing the final product.



Advantages of using Prototype Model :

- This model is **flexible in design**. It is easy to detect errors. We can find missing functionality easily. There is scope of refinement, it means new requirements can be easily accommodated.

Disadvantages :

1. This model is costly.
2. It has poor documentation because of continuously changing customer requirements.
3. There may be too much variation in requirements.
4. Customers may not be satisfied or interested in the product after seeing the initial prototype.

WHEN CLIENT SATISFIED THEN IT COMES UNDER WATERFALL
(requirement do not change)

Effects of designing a prototype

- Prototyping may have some initial costs of developing, but it reduces the overall budget by helping your product to be free of the errors or glitches that could have occurred if the idea was made from scratch without any prior user testing.
- Furthermore, prototyping also helps to understand the intrinsic flaws, shortcomings and drawbacks that can be improved during the product development process

Q2- iterative model vs evolutionary model

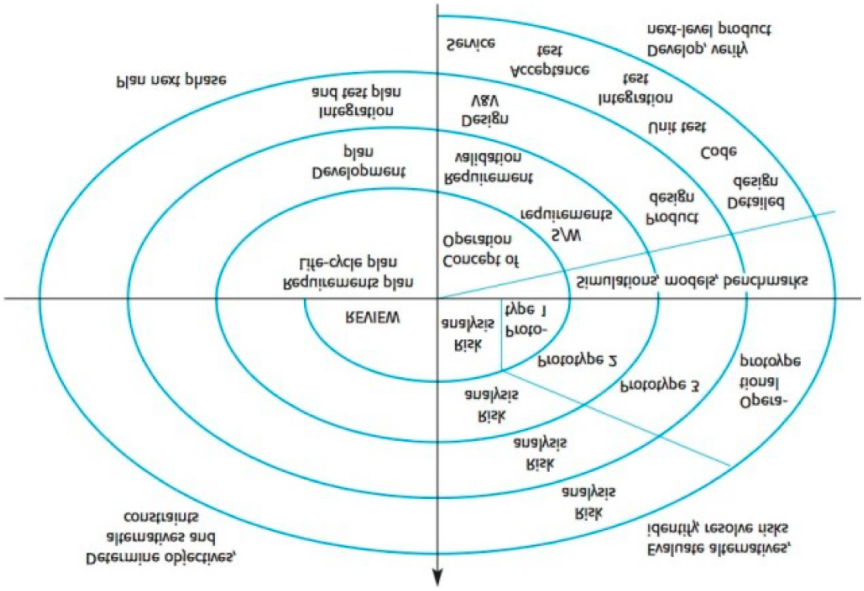
Ans-

1-) only iterative approach is used in this method	Combibation of iterative annd incremental approach
.2-)low cost	High cost
3-) Release product at the end of each cycle	Do not release product at the end of each cycle
4-)This model is effective in the situation where requirement are defined & there is no confusion about the functionality of the final product& functionality can be delivered in phases as per desired priorities.	This model is useful for projects using new technology that is not well understood.
5-)client involvement is less .	High client envolvement.
6-)division of product into smaller chunks	Prototype is made rather than dividing into chunks.

Q3-Process flow path of the spiral model?what can we

say about software that is being developed or maintained?

Ans-



The spiral model combines the idea of iterative development with the systematic, controlled aspects of the waterfall model. This Spiral model is a combination of iterative development process model and sequential linear development model i.e. the waterfall model with a very high emphasis on risk analysis. It allows incremental releases of the product or incremental refinement through each iteration around the spiral.

The advantages of the Spiral SDLC Model are as follows –

- Changing requirements can be accommodated.
- Allows extensive use of prototypes.
- Requirements can be captured more accurately.
- Users see the system early.
- Development can be divided into smaller parts and the risky parts can be developed earlier which helps in better risk management

The disadvantages of the Spiral SDLC Model are as follows –

- Management is more complex.
- End of the project may not be known early.
- Not suitable for small or low risk projects and could be expensive for small projects.
- Process is complex
- Spiral may go on indefinitely.
- Large number of intermediate stages requires excessive documentation.

Q4 Explain Scrum methology

Ans- Scrum is an efficient framework within which you can develop software with teamwork. It is based on agile principles.

Scrum is an agile development methodology used in the development of Software based on an iterative and incremental processes. Scrum is adaptable, fast, flexible and effective agile framework that is designed to deliver value to the customer throughout the development of the project. The primary objective of Scrum is to satisfy the customer's need through an environment of transparency in communication, collective responsibility and continuous progress. The development starts from a general idea of what needs to be built, elaborating a list of characteristics ordered by priority (product backlog) that the owner of the product wants to obtain.

Q5-Explain the utility of Kanban Cfd reports

Ans-**K**anban is a visual system for managing work as it moves through a process. Kanban visualizes both the process (the workflow) and the actual work passing through that process. The goal of Kanban is to identify potential bottlenecks in your process and fix them so work can flow through it cost-effectively at an optimal speed or throughput.

Three important parameters to look in CFD:-
1-) the throughput
2-) the cycle time

3-) the work in progress

Benifits of CFD Kanban-:

- Flexibility.
- Focus on continuous delivery.
- Reduction of wasted work / wasted time.
- Increased productivity.
- Increased efficiency.
- Team members' ability to focus.
- Preventing team overburden.