

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

- The prototype model requires that before carrying out the development of actual software, a working prototype of the system should be built. It includes Requirement Gathering and Analyst, Quick Decision,, Build a Prototype Assessment or User Evaluation Prototype, Refinement Engineer Product
- we talk about cost, it includes all the elements such as: Size of software Quality Hardware Communication Training Skilled manpower
- At first this might seem unintuitive since you are *spending* money on prototypes. However in the end you will be financially better off.
- This is because it is much more affordable to discover and fix an issue early on than once you are gearing up for manufacturing. Prototypes are the only way you will be able to discover a large class of issues.

2. compare the iterative enhancement model and evolutionary process model

Iterative enhancement model has the similar phases as the waterfall model, but with fewer restrictions. In general the phases occur in the same order as in the waterfall model but these may be conducted in several cycles. A utilizable product is released at the end of the each cycle with each release providing additional functionality.

The Evolutionary development model divides the development cycle into smaller, incremental waterfall models in which users are able to get access to the product at the end of each cycle. Feedback is provided by the users on the product for the planning stage of the next cycle and the development team responds, often by changing the product, plan or process. Therefore, the software product evolves with time.

- In evolutionary model, a user gets a chance to experiment partially developed system.
- It reduces the error because the core modules get tested thoroughly.

3.As we move outward along with process flow path of the spiral model, what can we say about software that is being developed or maintained

Spiral model is an evolutionary software process model that couples the iterative feature of prototyping with the controlled and systematic aspects of the linear sequential model. It implements the potential for rapid development of new versions of the software. Using the spiral model, the software is developed in a series of incremental releases

As work moves outward on the spiral, the product moves toward a more complete state and the level of abstraction at which work is performed is reduced (i.e., implementation specific work accelerates as we move further from the origin).

4.Explain the Scrum Agile methodology.

Agile is an iterative approach to project management and software development that helps teams deliver value to their customers faster and with fewer headaches. Instead of betting everything on a "big bang" launch, an agile team delivers work in small, but consumable, increments. Requirements, plans, and results are evaluated continuously so teams have a natural mechanism for responding to change quickly.

Agile scrum methodology is used by companies of all sizes for its ability to provide high-end collaboration and efficiency for project-based work. Agile and scrum are two different methods and can be used separately; however, their combined benefits make the agile scrum methodology the most popular use of agile. Here's the complete guide to agile scrum methodology

Agile scrum methodology is the combination of the agile philosophy and the scrum framework. Agile means "incremental, allowing teams to develop projects in small increments. Scrum is one of the many types of agile methodology, known for breaking projects down into sizable chunks called "sprints." Agile scrum methodology is good for businesses that need to finish specific projects quickly.

Agile scrum methodology is a project management system that relies on incremental development. Each iteration consists of two- to four-week sprints, where the goal of each sprint is to build the most important features first and come out with a potentially deliverable product. More features are built into the product in subsequent sprints and are adjusted based on stakeholder and customer feedback between sprints.

Whereas other project management methods emphasize building an entire product in one operation from start to finish, agile scrum methodology focuses on delivering several iterations of a product to provide stakeholders with the highest business value in the least amount of time.

Agile scrum methodology has several benefits. First, it encourages products to be built faster, since each set of goals must be completed within each sprint's time frame. It also requires frequent planning and goal setting, which helps the scrum team focus on the current sprint's objectives and increase productivity.

6.Explain the utility of Kanban utility CFD reports.

- CFD charts are a powerful tool that Kanban teams can use to measure flow and analyze trends about a team's performance. Think of a CFD chart as a storyteller.
- It paints a picture of how workflows through your Kanban system within a period. With this information handy, teams can diagnose problems and improve their process to create a more stable and predictable flow.
- The Cumulative Flow Diagram shows how many items have moved from one state to another in a given period.

- Depending on the tool you're using, it should be able to give you the actual count of items per band per time interval. You can determine how many items are still waiting to be done and how many items you're currently working on.
- The CFD chart can also indicate your Lead and Cycle times