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ASSIGNMENT ON SDLC MODEL

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

Ans. Prototyping Model: - In this model, We have to build a dummy project or design of project before start actual development. In this model designing phase is a very essential phase because it helps users and developers to understand the project needs.

Effects of designing a prototype on the overall cost of a project: - In the Prototype model, There is an essential step for designing the project or building the project prototype before final development. It can reduce the cost of a project when the prototype builds successfully without any technical glitches or errors. Also help developers to understand the project requirements. Also it can reduce the time of development.

If designing phase skipped, It can increase the cost of project when any error or glitch found in project or need to reconstruct the project.

2**. Compare iterative enhancement model and evolutionary process model.**

Ans. Iterative Enhancement Model: - In the Iterative model, the iterative process starts with a simple implementation of a small set of the software requirements and iteratively enhances the evolving versions until the complete system is implemented and ready to be deployed.

Evolutionary Process Model: - It is a more customer focused model. In this model the software is divided into small units which are delivered earlier to the customer.
It enables the development of products that better fits users' needs, reduces costs and risk, and enables faster incremental improvements to existing products.

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.**

Ans. Spiral Model: - In this model, the process is represented as a spiral rather than as a sequence of activities with backtracking. Each loop in the spiral represents a phase in the process. In this model no fixed phases such as specification or design loops in the spiral are chosen depending on what is required.
Risks are explicitly assessed and resolved throughout the process.

Software that is being developed or maintained by spiral model: -
In software, it provides early indication of insurmountable risks,without much cost.
Users see the system early because of rapid prototyping tools.
Critical high-risk functions are developed first.
The design does not have to be perfect.
Early and frequent feedback from users.
Users can be closely tied to all lifecycle steps.

4. **Explain the Scrum Agile methodology.**

Ans. Scrum Agile methodology: - Agile method based on an iterative approach to software development, focus on the code rather than the design. It evolves quickly to meet changing requirements and is intended to deliver working software quickly.
Agile methods are probably best suited to small/medium-sized business systems or PC products.
Agile methods are considered lightweight, because of the short development cycle(internet application needed). In this more active client involvement is needed.
It maintains simplicity, because of this focus on simplicity in both the software being developed and in the development process used. Wherever possible, actively work to eliminate complexity from the system.

Advantages of Agile method: -
> More customer involvement.
> people based rather than plan based.
> Incremental delivery
> Maintain simplicity
> Embrace change

5. **Explain the utility of Kanban CFD repor**ts.

Ans. The cumulative flow diagram (also known as CFD) is one of the most advanced Kanban and Agile analytics charts. It provides a concise visualization of the three most important metrics of your flow:

Cycle time, Throughput, work in progress

Its main purpose is to show you how stable your flow is and help you understand where you need to focus on making your process more predictable. It gives you quantitative and qualitative insight into past and existing problems and can visualize massive amounts of data.

The cumulative flow diagram is an advanced analytic tool that will give you an accurate picture of how stable your process is and how efficient your team is. You can get a piece of actionable advice on where you need to focus your efforts in order to improve your process in a single glance.

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