

## Assignment On SDLC Model.

Q1. Discuss the Prototyping Model. What is the effect of designing a prototype on the overall cost of the project?

→ Prototyping Model:-

It is a software development model in which small prototype is built, checked, renewed until the prototype is fully satisfied.

It is used when input project requirements are not available at that time.

It is a startup for final system or software. This prototype model is built developer and client's requirement.

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

If the prototyping process is ignored completely, it might result in the restructuring and redesigning of entire product after spending all your resource on its development, so the effort of designing a prototype on the overall cost of software project is to actually reduce the additional which might cost a fortune.



Q2. Compare iterative enhancement model & evolutionary process model.

→ Iterative Enhancement Model Evolutionary Process Model

- 1) This model has the similar phases as the waterfall model but with fewer restrictions.
- 2) Utilised product is released at the end of each cycle with each release providing additional functionality.
- 3) This model is an approach to building software in which overall lifecycle is composed of several iterations in sequence.
- 1) This model bears a resemblance to iterative enhancement model.
- 2) This model does not require a useable product at the end of each cycle. Requirements are implemented by category rather than by priority.
- 3) This model is designed to be allow to evolve in response to the customers feedback.



Q3. 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.

→ As we move outward on the spiral product moves towards a more complete state and the level of abstraction at which work is performed is reduced that is implementation specific work accelerates as we move further from the origin.

Q4. Explain the Scrum Agile methodology.

→ Agile Scrum methodology is a sprint-based project management system with the goal of delivering the highest value of stakeholders.

- It is used by companies of all sizes for its ability to provide high end collaboration and efficiency for project based work.

- In which each iteration consist of two to four week sprints, where the goal of each sprints is to build the most important features first & come out with a potentially deliverable product.

Principles of Agile Methodology -

- 1) Customer Satisfaction.
- 2) Early and Continuous delivery.
- 3) Embrace change.



- 4) Frequent Delivery.
- 5) Collaboration of businesses & developers.
- 6) Motivated individuals.
- 7) Simplicity.
- 8) Self organised team.
- 9) Regulation, Reflection & Adjustment.

### Roles :-

#### 1) Scrum Master -

Scrum Master is the facilitator of scrum development process. In addition daily meetings with scrum team.

#### \* Responsibility of Scrum Master :-

Coaches & motivating the team, removing impediments to sprints & ensuring that team has best possible conditions to meet its goals and produce deliverable products.

#### 2) Product Owner -

It represents stakeholders, who are typically customers, product owner determines product expectations, records changes to the product and administers a scrum backlog.

#### 3) Scrum team -

It is self organised group of three to nine people who have business, design analytical and development skills to carry out actual work, solve problems and produce deliverable products.

Q5 Explain the utility of Kanban CFD reports.

- The cumulative flow diagram 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.
  - Kanban teams can use to measure flow and analyze trends about team's performance.