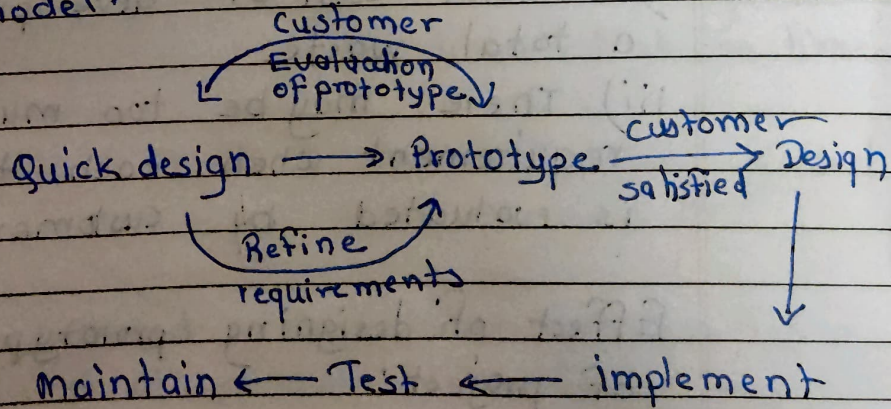
Assignment - I

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

Ans: 1) When project requirements are not known in detail then prototype model is used.
2) Prototype model is in which prototype is built according to the given provided requirement and tested and again refined for users requirement until user's satisfaction.
3) User's active participation is in prototype model.
4) According to user's feedback and suggestions the prototype model gets refined.
5) The diagram given below shows the prototype model.



6) After final prototype is made when customer is satisfied. After that the Design, implementation and testing is developed using a classical waterfall method.

Types of prototype:
1) Rapid Throwaway Prototype
2) Evolutionary Prototyping
3) Incremental Prototyping
4) Extreme prototyping.

Advantages of prototype model
i) Users are actively involved in development so errors can be detected in the initial stage
ii) Missing functionality can be identified, which helps to reduce risk of failure
iii) Customer satisfaction exists.

Dis advantages of prototype model:
i) It is slow and time taking process
ii) Initial cost of developing prototype is a total waste.
iii) There may be too much variation in software requirement when each time the prototype is evaluated by customer.

Effect of designing prototype on the overall cost of project:
Prototyping model may have initial cost more for making prototype model to satisfy client but overall cost of prototype model is less as the error's are minimised in the prototype refining and customer requirements are fullfilled before designing and delivering software.
A restructuring and redesigning

cost of product after it's full development is saved through the prototype model.

Q2: Compare iterative enhancement model and evolutionary process model.

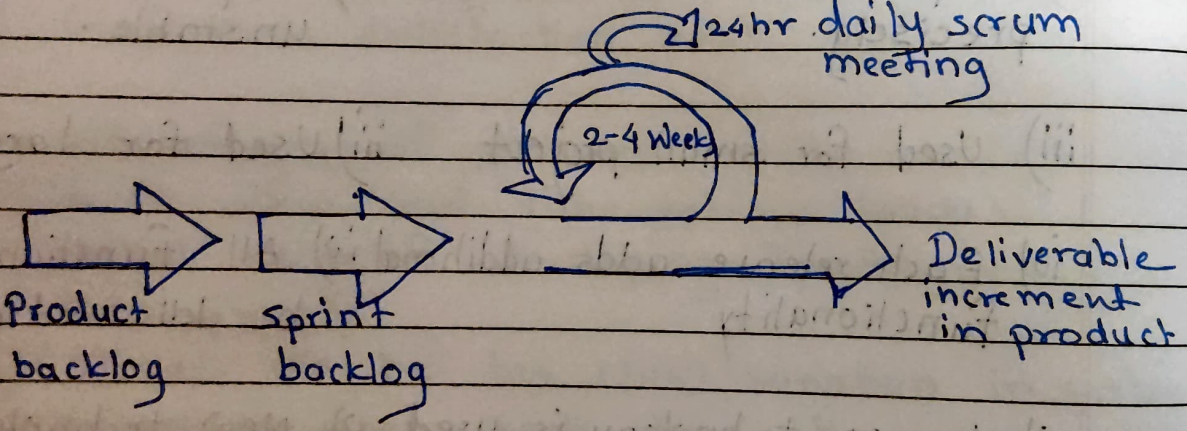
Iterative enhancement	Evolutionary process
i) Release product at end of each cycle.	i) Release product at a one time.
ii) Requirements are defined precisely.	ii) Requirements are unstable.
iii) Used for small project	iii) Used for large project
iv) Each release adds additional functionality	iv) All functionality must be delivered at one time.
v) Known technology is used	v) New technology is used

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?

Ans: As work moved outword on the spiral, the product move toward a more complete state along with the risk analysis.

Q4. Explain the Scrum Agile methodology.

Ans: 1) Scrum is an agile development methodology used in software development based on an iterative and incremental processes.
2) Scrum is adaptable, fast, and flexible.
3) 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.



Product backlog:
It is a list that collects everything the product needs to satisfy the potential customer.
It is prepared by a product owner and functions are prioritized according to what is more or less important.

Sprint backlog:
It is subset of items of the product backlog, which are selected by team to perform during the sprint on which they are going to work.

The team establish the duration of each sprint. The sprint is usually of 2-4 week duration.

The daily acessment is done by taking daily scrum meeting, in which what have done ? what to do ? and what help needed is included. It is planned for next 24 hrs.

At every sprint beginning the sprint planning is there. Daily scrum meeting is included and last at sprint is completed the sprint review is there.

The scrum team consist of scrum master, product owner and development team.

Q5. Explain the utility of Kanban CFD reports ?

i) The cumulative flow diagram helps one to visualize the workflow management system with the work progress over the cycle time.

ii) It helps one to know the current progress over backlogs, work in Progress, the work done and the throughput over the cycle time.

iii) You can find stability of your workflow and any problem areas to be address.

iv) Correct analysis and monitoring of CFD will tell you which area need your attention to maintain continous process improvement.

v) CFD provide you the tools to improve the overall productivity and efficiency of team.