Assignment 1

1) Explain the prototyping model. Also discuss the effect of designing a prototype on the overall cost of the project.

2) Compare iterative enhancement model & evolutionary process model.

3) As we move outward along with process flow both of the spiral model what can we say about software being developed or methodology.

4) Explain the Scrum Agile methodology.

5) Explain the utility & scope of spiral model.

1) Prototype Model :-

» Prototype is a process of quickly putting together a working model (a prototype).

» Prototype is often treated as an integral part of the S/S design process.

» It is done to reduce project risk & cost.

» Suggested by project manager/ Head.

* When to use :- Project for which user requirements or underlying technical aspects are not well understood.

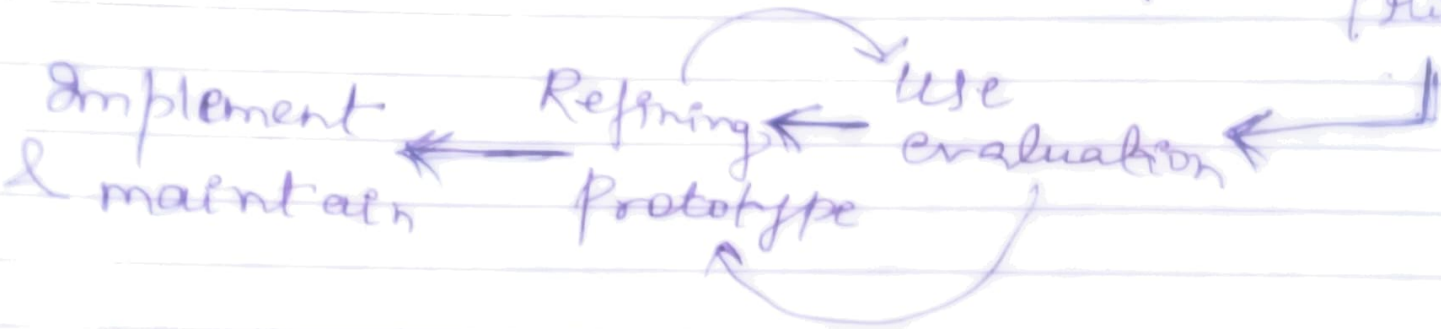
» especially popular for development of the user - interface part of the project.

The reason for developing a prototype is —

It is impossible to get it right the first time.

» We must plan to throw away the first product if we want to develop a good product.

- Requirements → Quick design → Build Prototype



Advantage → 1) User actively involved, so the errors can detect easily at initial stage.

can be change or discard.

Evolutionary process model (i.e prototyping model) resembles iterative enhancement model.
But this differ from iterative enhancement model in the sense that thes does not release product at the end of each cycle.

→ This model is useful for projects using new technology i.e. not well understood.

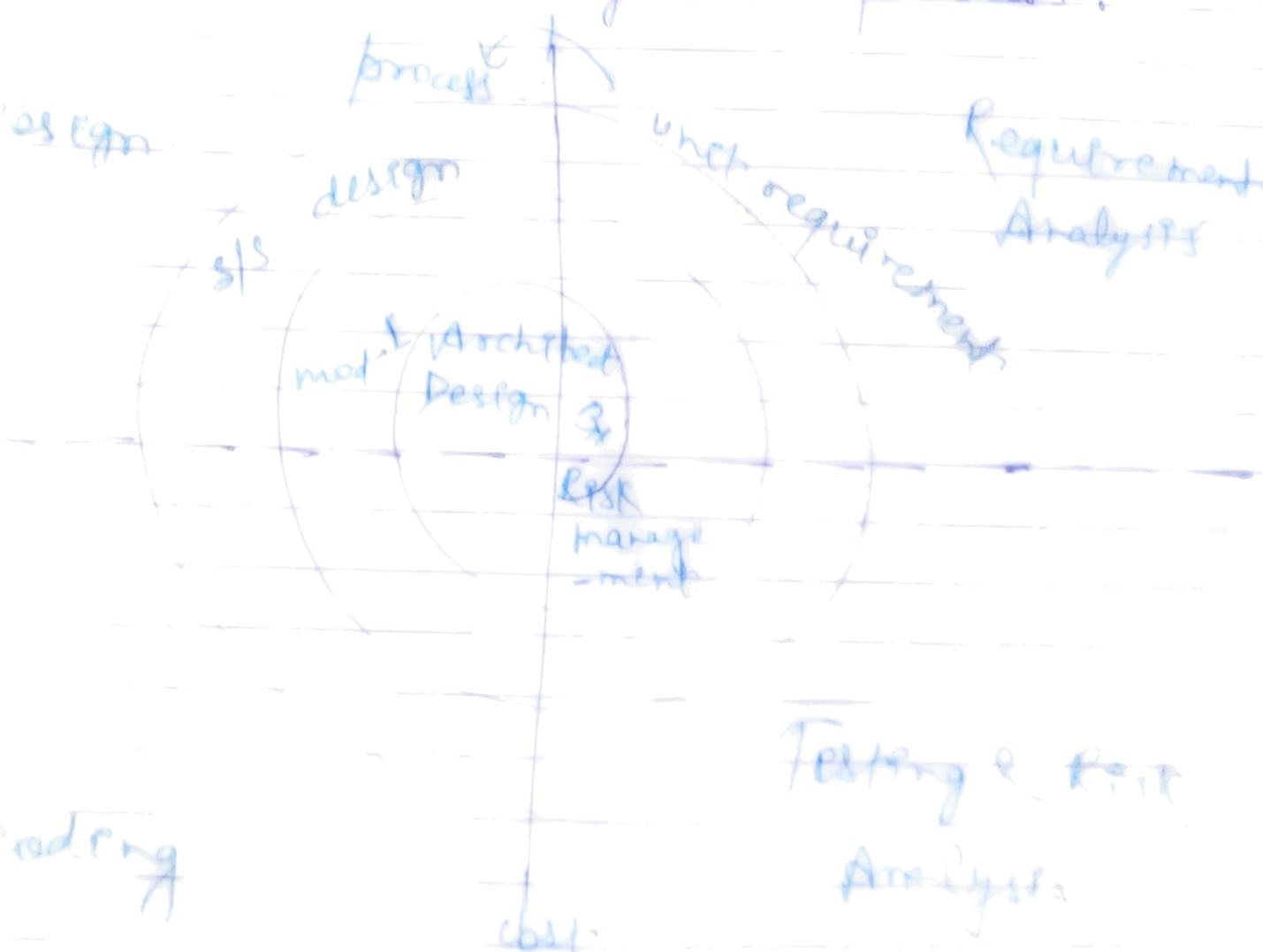
* Incremental model requires design, build & test phases again & again for each requirement & builds up a s/s iteratively till the s/s is completely built.

c) Spiral Methodology : Process is represented as a spiral rather than as a sequence of activities with backtracking.

* Each loop in spiral represents a phase in the process.

* No fixed phases, such as design loops in the spiral are chosen depending on what is required.

* Risks are explicitly assessed & resolved throughout process.



Scrum Agile methodology :-

- Agile methodology focus on code rather than design.
- Delivers working software quickly.

Agile methodology →

- XP
  Scrum
  DSDM
  The crystal family
  ASD
  FDD
  dx (agile RUP)
  Open source
  Agile modeling.
  Pragmatic programming.

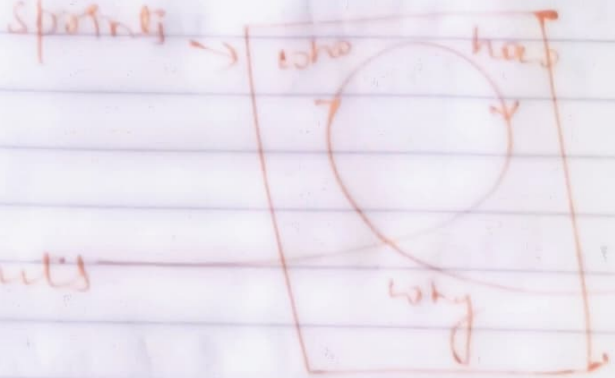
Scrum & agile are not same thing.
continuous improvement, which is a core foundation of agile.

Scrum Agile Methodology

* How it works ?

Scrum agile methodology consists of -

Product Backlog → Registered list of work for the development team.
↳ Sprint Backlog → Breaks big task into pieces, work faster
↳ Daily Scrum meeting.
↳ Potentially shipable product increment



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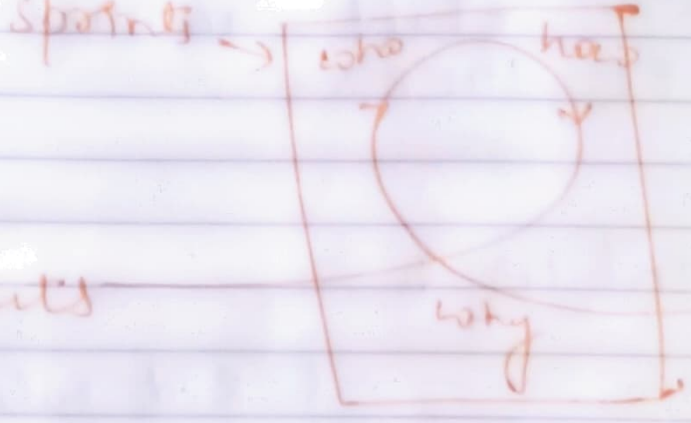

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Kanban in agile :

- Kanban is a framework which is used to implement agile software development.

  It takes real time communication of capacity & complete transparency of work.

- Kanban board uses - cards, columns, & provide continuous development to help technology & services teams who commit the right amount of work & get it done.

Elements of Kanban :-

> Visual Signal (Red color)
  commitment point (Blue color)
  Colums (Yellow color)
  Delivery point (green color)
  work in progress (purple "

* Kanban is the combined methodology for implementing agile software development.