# ASDM ASSIGNMENT-1

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BATCH-A (CDAC NOIDA)

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

ANSWER - Prototyping is defined as the process of developing a working replication of a product or system that has to be engineered. It offers a small scale facsimile of the end product and is used for obtaining customer feedback as described below:

The Prototyping Model is one of the most popularly used Software Development Life Cycle Models (SDLC models). This model is used when the customers do not know the exact project requirements beforehand.

**Advantages –** 

* New requirements can be easily accommodated as there is scope for refinement.
* Missing functionalities can be easily figured out.

**Disadvantages –** 

* Costly w.r.t time as well as money.
* There may be too much variation in requirements each time the prototype is evaluated by the customer.

**Use –**

The Prototyping Model should be used when the requirements of the product are not clearly understood or are unstable.

Question-2 Compare iterative enhancement model and evolutionary process model.

Answer-OVERVIEW

* Basic practices of iterative and evolutionary methods, including timeboxing and adaptive planning.
* A common mistake adopting iterative methods.
* Specific iterative and evolutionary methods, including Evo and *UP*.

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| --- | --- |
| *iterative development* | *evolutionary development* |
| *risk-driven and client-driven* | *evolutionary requirements* |
| *timeboxing* | *adaptive planning* |
|  |  |

Question-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.

Answer-The product advances to a more complete state as work spirals outward, and the **level of abstraction at which work is conducted decreases** (i.e., implementation specific work accelerates as we move further from the origin).

**Explanation:**

One of the most significant models for the **Software Development Life**Cycle that supports **risk handling** is the**spiral model**.

In diagrammatic form, it resembles a **spiral with several loops**. The spiral's precise number of loops is unclear and varies from project to project. A phase of the software development process is referred to as each **spiral loop.**

The project manager might alter the precise number of phases required to build the product depending on the project's risks. The project manager plays a crucial role in the spiral model of product development since they dynamically set the number of phases.

The **waterfall model's** methodical, managed elements are combined with the idea of iterative development in the**spiral model.** Iterative and sequential linear development models, or the waterfall model, are combined to create the spiral model, which places a strong emphasis on risk analysis.

Question-4 . Explain the Scrum Agile methodology.

Answer- Scrum is an agile project management framework that helps teams structure and manage their work through a set of values, principles, and practices. Much like a rugby team (where it gets its name) training for the big game, scrum encourages teams to learn through experiences, self-organize while working on a problem, and reflect on their wins and losses to continuously improve.

While the scrum I’m talking about is most frequently used by software development teams, its principles and lessons can be applied to all kinds of teamwork. This is one of the reasons scrum is so popular. Often thought of as an agile project management framework, scrum describes a set of meetings, tools, and roles that work in concert to help teams structure and manage their windows.

### **The scrum product owner**

### **The scrum master**

### **The scrum development team**

**Product Backlog**

**Sprint Backlog And many more.**

**Question-5** . Explain the utility of Kanban CFD reports.

**Answer-Cumulative Flow Diagram** is an analytical tool, fundamental to [Kanban method](https://kanbantool.com/kanban-guide/kanban-method). It allows teams to visualize their effort and project progress. When there's an impediment about to occur within the process - the CFD is where you'll see it first. Instead of the graph staying smooth and rising gently, there will be a bump, a sudden ascend or descend. So, where being able to predict problems is concerned, this is the very graph you need.

## **What does it show?**

The [Cumulative Flow Diagram](https://kanbantool.com/kanban-guide/cumulative-flow-diagram) visualises how tasks mount up over time, together with their distribution along the process stages. The graph is built from different colored bands of tasks gathered in various columns. One color represents one column - so that each band shows how many tasks sit at what stage of the process, in a given time - the horizontal value.

## **How should it look?**

