

# **INCREMENTAL MODEL**

**Incremental Model is a process of software development where requirements are broken down into multiple standalone modules of software development cycle. Incremental development is done in steps from analysis design, implementation, testing/verification, maintenance.**

**The various phases of incremental model are as follows:**

**1. Requirement analysis:** In the first phase of the incremental model, the product analysis expertise identifies the requirements. And the system functional requirements are understood by the requirement analysis team. To develop the software under the incremental model, this phase performs a crucial role.

**2. Design & Development:** In this phase of the Incremental model of SDLC, the design of the system functionality and the development method are finished with success. When software develops new practicality, the incremental model uses style and development phase.

**3. Testing:** In the incremental model, the testing phase checks the performance of each existing function as well as additional functionality. In the testing phase, the various methods are used to test the behavior of each task.

**4. Implementation:** Implementation phase enables the coding phase of the development system. It involves the final coding that design in the designing and development phase and tests the functionality in the testing phase. After completion of this phase, the number of the product working is enhanced and upgraded up to the final system product

## **When we use the Incremental Model?**

- A project has a lengthy development schedule
- When Software team are not very well skilled or trained.
- When the customer demands a quick release of the product.
- You can develop prioritized requirements first.
- Requirements of the system are clearly understood
- When high-risk features and goals are involved
- Such methodology is more in use for web application and product based companies

## **Advantage of Incremental Model**

- Errors are easy to be recognized.
- The software will be generated quickly during the software life cycle
- It is flexible and less expensive to change requirements and scope
- Errors are easy to be identified
- This model is less costly compared to others

- *Simple to manage risk because it handled during its iteration.*
- *The Client gets important functionality early.*
- *Throughout the development stages changes can be done*

### ***Disadvantage of Incremental Model***

- *Need for good planning designing*
- *Total Cost is high.*
- *Well defined module interfaces are needed.*
- *Problems might cause due to system architecture as such not all requirements collected up front for the entire software lifecycle*
- *Each iteration phase is rigid and does not overlap each other*
- *Rectifying a problem in one unit requires correction in all the units and consumes a lot of time*