

# Software Development Life Cycle Models

A software life cycle model is a diagram that depicts the software development process. Although each SDLC model takes a distinct approach, the core phases and activities are the same.

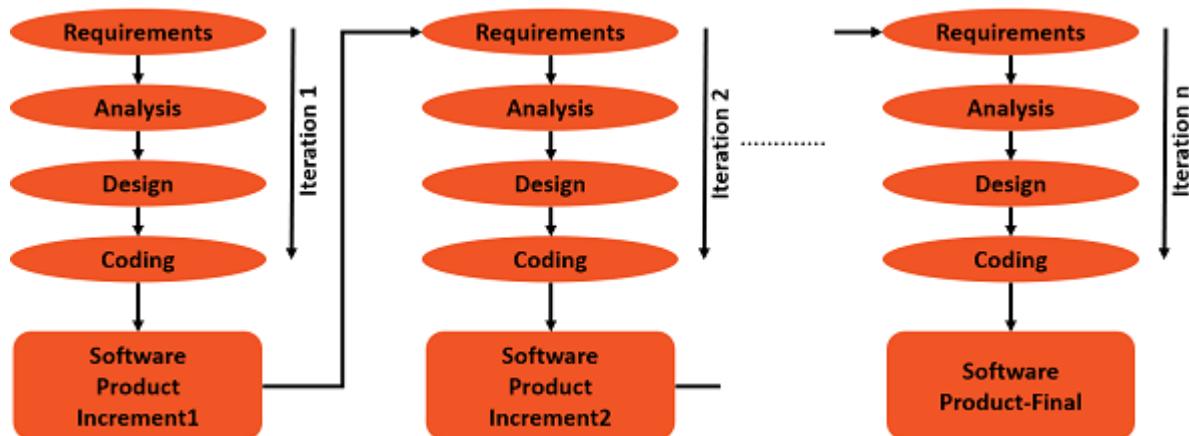
## 5. Iterative Incremental Model

The iterative, incremental model divides the product into small chunks.

Example: The iteration's feature to be developed is identified and implemented. Requirement Analysis, Designing, Coding, and Testing are all processes that each iteration goes through. Iterations do not necessitate detailed planning.

After each iteration, a product is confirmed and provided to the consumer for review and comments. Customer input, as well as the newly added feature, are integrated into the next iteration.

The product increments in terms of features, and once the iterations are completed, the final build holds all the product's characteristics.



### Phases of Iterative & Incremental Development Model:

- Inception phase
- Elaboration Phase
- Construction Phase

- Transition Phase

**(i) Inception Phase:**

The inception phase includes the requirement and scope of the Project.

**(ii) Elaboration Phase:**

The functional architecture of a product is delivered in the elaboration phase, which addresses the risk identified in the inception phase and non-functional requirements.

**(iii) Construction Phase:**

The architecture is filled in with ready-to-deploy code in the Construction phase, developed through functional requirement analysis, design, implementation, and testing.

**(iv) Transition Phase:**

In the Transition Phase, the product is deployed in the Production environment.

**Advantages of Iterative & Incremental Model:**

- Any modification in the requirement is simple and inexpensive because the new condition can be incorporated in the next iteration.
- Risk is analyzed & identified in the iterations.
- Defects are detected at an early stage.
- It is simple to handle the product because it is split into smaller portions.

**Disadvantages of Iterative & Incremental Model:**

- Complete requirements and understanding of a product are required to break down and build incrementally.