RAMA UNIVERSITY

www.ramauniversity.ac.in

FACULTY OF EGINEERING

SOFTWARE ENGINEERING
LECTURE-12

Mr. Dhirendra

Assistant Professor

Computer Science & Engineering

OUTLINE

- Incremental Model
- Various phases of incremental model
- Use The Incremental Model
- Advantage of Incremental Model
- Disadvantage of Incremental Model
- MCQ
- References

Incremental Model

Incremental Model is a process of software development where requirements divided into multiple standalone modules of the software development cycle. In this model, each module goes through the requirements, design, implementation and testing phases. Every subsequent release of the module adds function to the previous release. The process continues until the complete system achieved.

Incremental Model

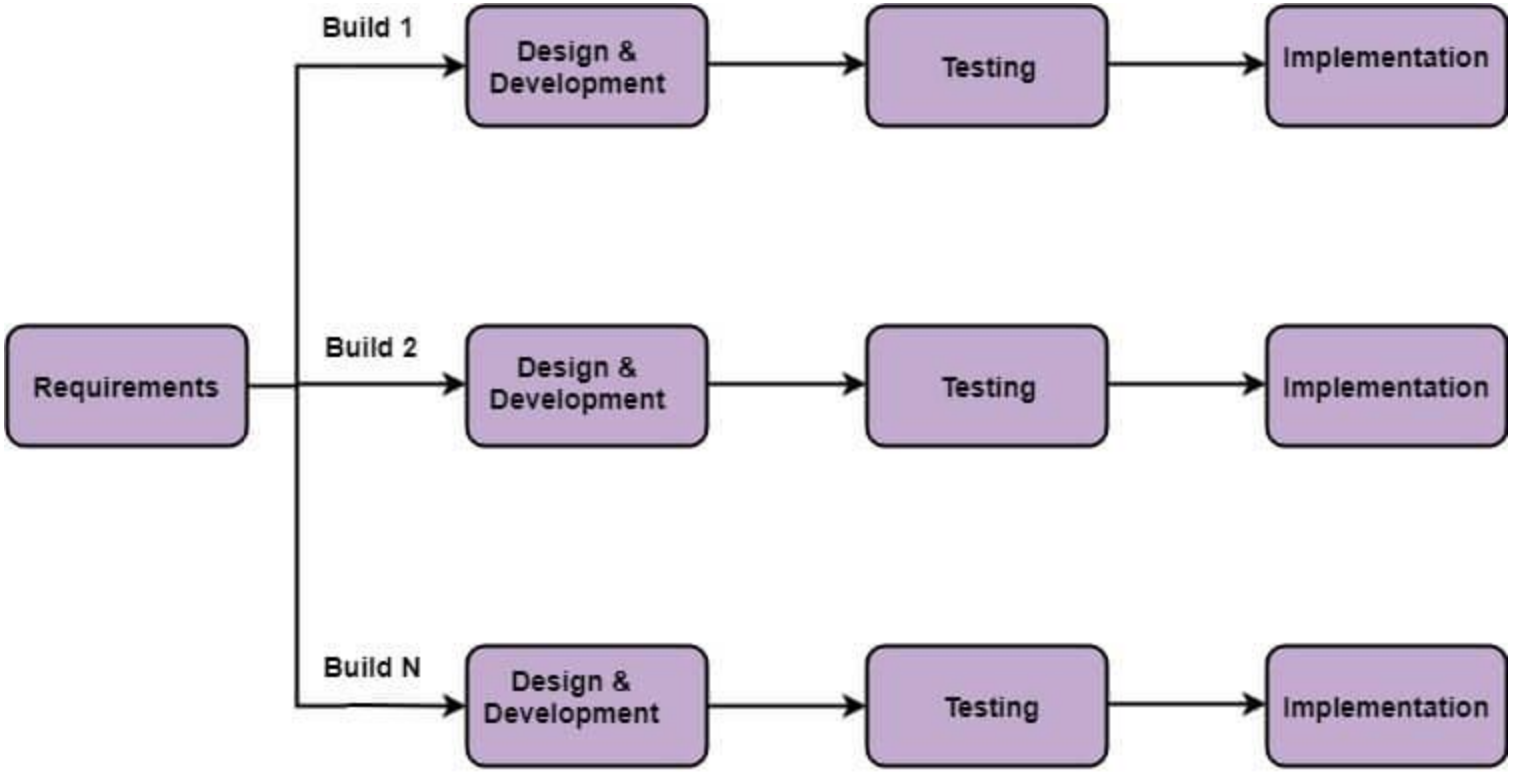

Fig: Incremental Model

Various phases of incremental model

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

Use The Incremental Model

- When the requirements are superior.
- 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.

Advantage of Incremental Model

- Errors are easy to be recognized.
- Easier to test and debug
- More flexible.
- Simple to manage risk because it handled during its iteration.
- The Client gets important functionality early.

Disadvantage of Incremental Model

- Need for good planning
- Total Cost is high.
- Well defined module interfaces are needed.

MCQ

1. What are the types of requirements ?

a) Availability

b) Reliability

c) Usability

d) All of the mentioned

2. Select the developer-specific requirement ?

a) Portability

b) Maintainability

c) Availability

d) Both Portability and Maintainability

3. Which one of the following is not a step of requirement engineering?

a) elicitation

b) design

c) analysis

d) documentation

MCQ

4. FAST stands for

a) Functional Application Specification Technique

b) Fast Application Specification Technique

c) Facilitated Application Specification Technique

d) None of the mentioned

5. QFD stands for

a) quality function design

b) quality function development

c) quality function deployment

d) none of the mentioned

References

- https://www.javatpoint.com/digital-image-processing-tutorial
- https://www.tutorialpoint.com/
- R. S. Pressman (2010), “Software Engineering: A Practitioners Approach”, 7thEdition, McGrawHill.
- K. K. Aggarwal and Yogesh Singh (2008), “Software Engineering”, 3rd Edition, New Age International Publishers.
- Rajib Mall (2009), “Fundamentals of Software Engineering”, 3rd Edition, PHI Publication.
- R.E Fairley (2004), “Software Engineering”, Mc Graw Hill.