



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

COURSE NAME : 19CS302 AGILE SOFTWARE ENGINEERING

II YEAR /III SEMESTER

Unit 2- Agile Development

Topic 1: Fundamentals of Agile: Introduction and
background





Brain Storming



1. How to design a product with Iterative and incremental approach?



Agile-Basics



- Agile SDLC model is a combination of iterative and incremental process models which focus on process adaptability and customer satisfaction by rapid delivery of working software product.
- Agile Methods break the product into small incremental builds. These builds are provided in iterations. Each iteration typically lasts from about one to three weeks. Every iteration involves cross functional teams working simultaneously on various areas like –



- Planning
 - Requirements Analysis
 - Design
 - Coding
 - Unit Testing and
 - Acceptance Testing.
- At the end of the iteration, a working product is displayed to the customer and important stakeholders.



What is Agile?



- The meaning of Agile is swift or versatile.
- In Agile, the tasks are divided to time boxes (small time frames) to deliver specific features for a release.
- Iterative approach is taken and working software build is delivered after each iteration.
- Each build is incremental in terms of features; the final build holds all the features required by the customer.



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- The most popular Agile methods include Rational Unified Process (1994), Scrum (1995), Crystal Clear, Extreme Programming (1996), Adaptive Software Development, Feature Driven Development, and Dynamic Systems Development Method (DSDM) (1995).
- These are now collectively referred to as **Agile Methodologies**, after the Agile Manifesto was published in 2001.

Graphical illustration of the Agile Model

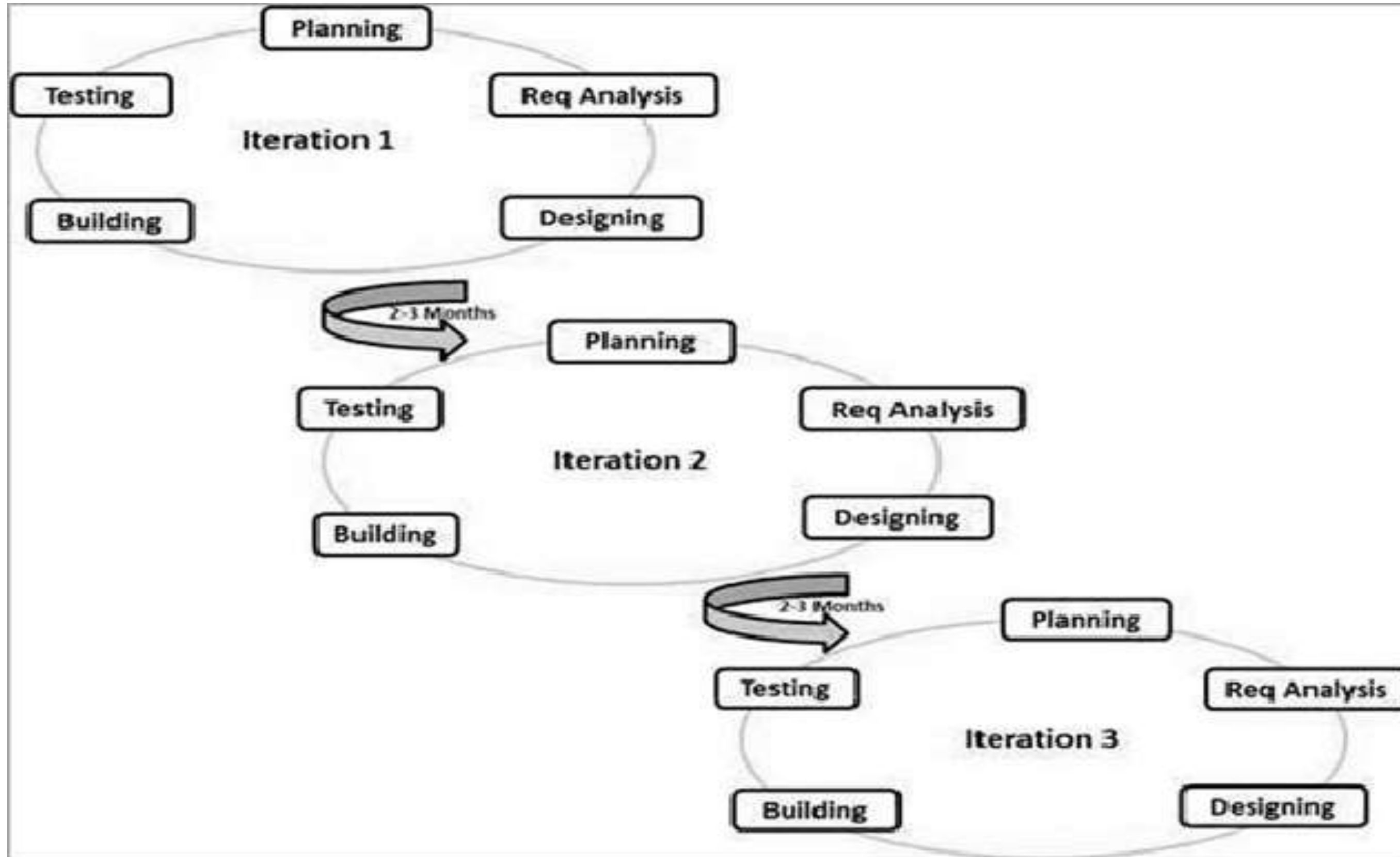




Fig. Agile Model



Phases in Agile



- Requirements gathering
- Design the requirements
- Construction/ iteration
- Testing/ Quality assurance
- Deployment
- Feedback



Conti...



- 1. Requirements gathering:** In this phase, you must define the requirements. You should explain business opportunities and plan the time and effort needed to build the project. Based on this information, you can evaluate technical and economic feasibility.
- 2. Design the requirements:** When you have identified the project, work with stakeholders to define requirements. You can use the user flow diagram or the high-level UML diagram to show the work of new features and show how it will apply to your existing system.



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3. Construction/ iteration: When the team defines the requirements, the work begins. Designers and developers start working on their project, which aims to deploy a working product. The product will undergo various stages of improvement, so it includes simple, minimal functionality.

4. Testing: In this phase, the Quality Assurance team examines the product's performance and looks for the bug.

5. Deployment: In this phase, the team issues a product for the user's work environment.

6. Feedback: After releasing the product, the last step is feedback. In this, the team receives feedback about the product and works through the feedback.



Assessment 1



1. What is Agile model?

Ans : _____

2. List out the Phases in Agile SDLC?

Ans : _____





References



1. Roger S. Pressman, Software engineering- A practitioner's Approach, 10th Edition, McGraw-Hill, 2017.
2. Ken Schawber, Mike "Agile Software Development with Scrum" Pearson Education, 2nd Edition, 2015.

Thank You