



SNS COLLEGE OF ENGINEERING



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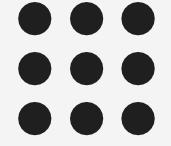
Department of Information Technology

Course Name – IT8075 Software Project Management

IV Year / VII Semester

Unit 2 – Project Lifecycle and Effort Estimation

Topic 4- Agile Methods and Extreme Programming





AGILE







Agile Methods



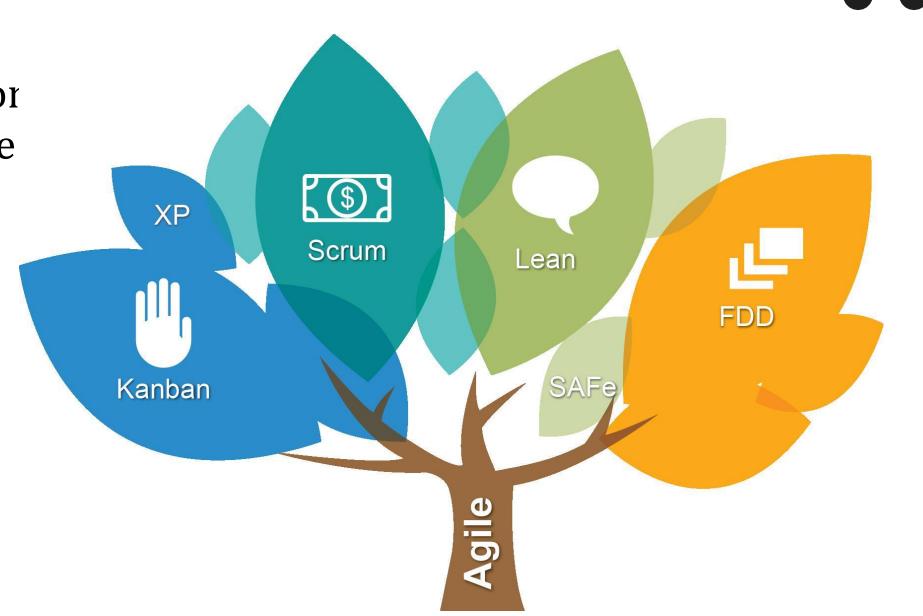
Why Agile?

- Overcome disadvantages of tradition
- Difficulty of accommodating change

Agile

Group of approaches

- Crystal Technologies
- Atern(DSDM)
- Feature-driven
- Scrum
- Extreme Programming (XP)



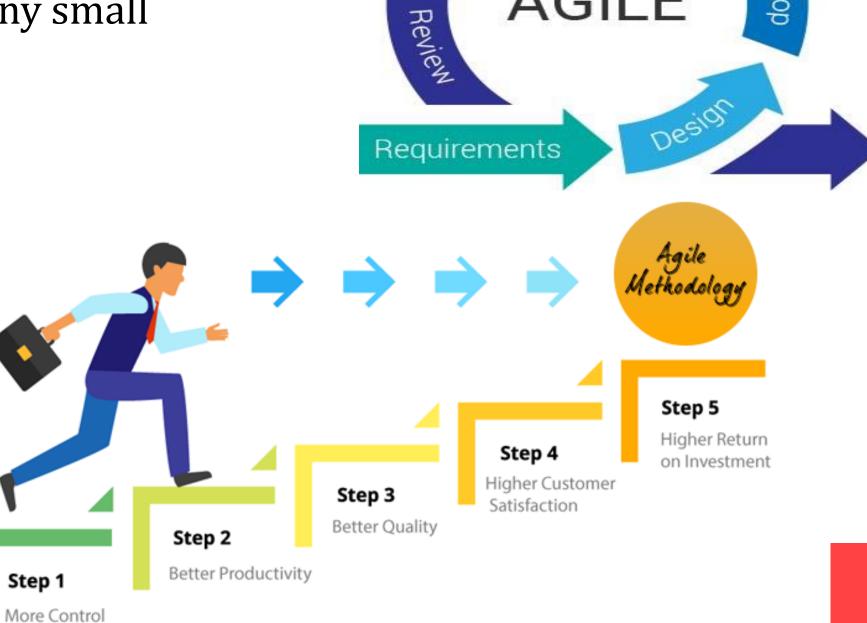


Agile Methods



Agile

- Iterative
- Feature Requirements many small parts
- Each iteration is small
- One increment at a time
- No long term
- Time-box



AGILE

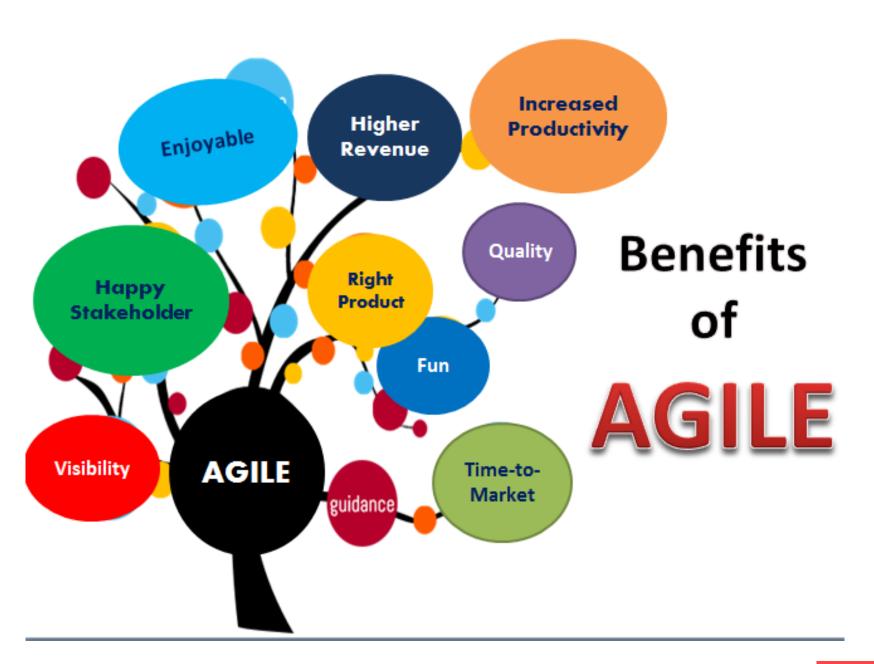


Agile Methods



Agile

- Face to Face Communication
- Small Team Size (5-9)
- Suited for small projects
- Customer representative
- Review Progress made
- Pair programming
- One can code
- Other reviews













XP

- Developed by Kent Beck
- First Published in 1999 and updated in 2000
- Developed for C3 Payroll Development project at Chrysler.
- An Agile Methodology









Core Values

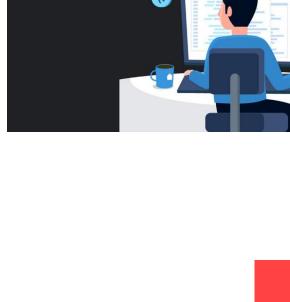
- Communication and Feedback
 - Face to Face
 - Working increment
- Simplicity
 - Simplest Design
- Responsibility
 - Developer Responsible
- Courage
 - Throw away work
 - To try new ideas











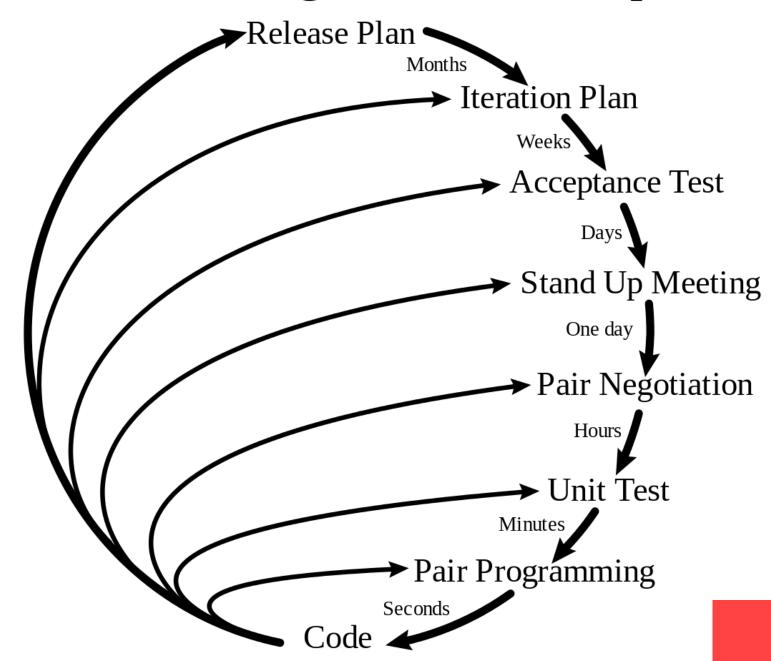




Core Practices of XP

- The planning exercise
 - Features Negotiation
 - Story
 - Atern's MoSCoW
- Small releases
 - Short as possible
 - Max 2 months
- Metaphor
 - Real world terminology
- Simple Design

Planning/Feedback Loops



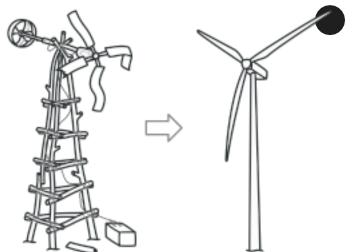


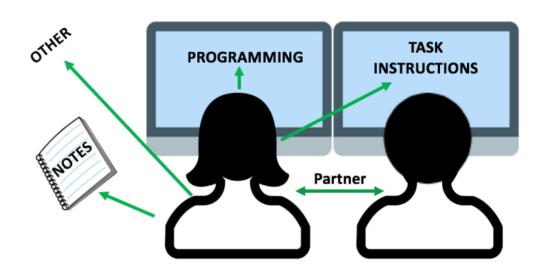


Core Practices of XP

- Testing
 - Testing and Coding same time
 - Unit testing and Functional
- Refactoring
 - No modifications to code
 - Rewrite Whole Sections
- Pair Programming
 - Pair of developers
 - Coding and testing
- Collective Ownership













Core Practices of XP

- Continuous Integration
 - Based on changes
 - Integrated tests
- Forty Hour Week
 - Long excessive hours are counterproductive
- Onsite Customers
 - User domain experts with developed
- Coding Standards
 - Ease of modifications













Limitations of XP

- Developer, user at different organizations
- Development staff at same office
- Communication problem
 - Visual interface essential
- Small system functionality
 - Self contained components
- Large, Complex projects needs effort
 - Preclude use of XP







Intrinsic Potential Problem

- Reliance on high quality developer
 - S/W Development vulnerable
- Tacit personal knowledge may decay
 - What to modify to implement change in requirement
- Rationale for test case not documented
 - Which test case to be changed
- Code reuse may incompatible with XP







THANK YOU