SNS COLLEGE OF ENGINEERING

Kurumbapalayam(Po), Coimbatore – 641 107
Accredited by NAAC-UGC with 'A' Grade
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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

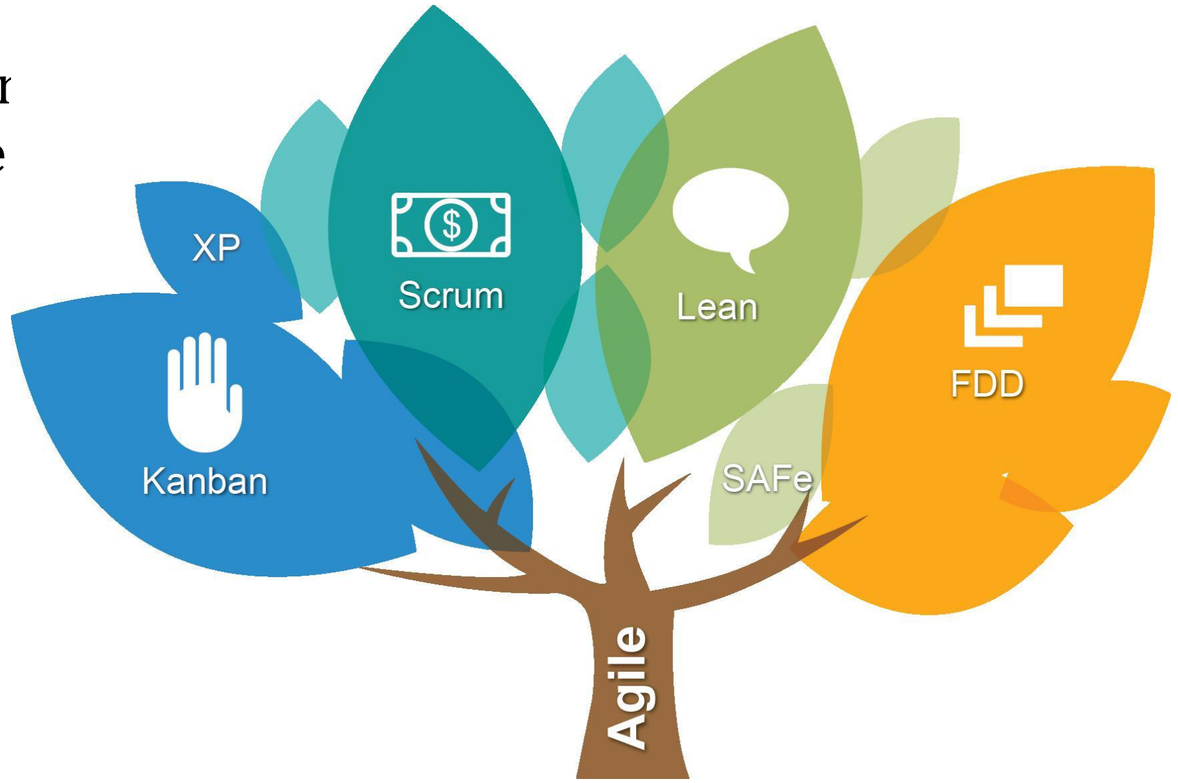
Why Agile?

- Overcome disadvantages of traditior
- Difficulty of accommodating change

Agile

Group of approaches

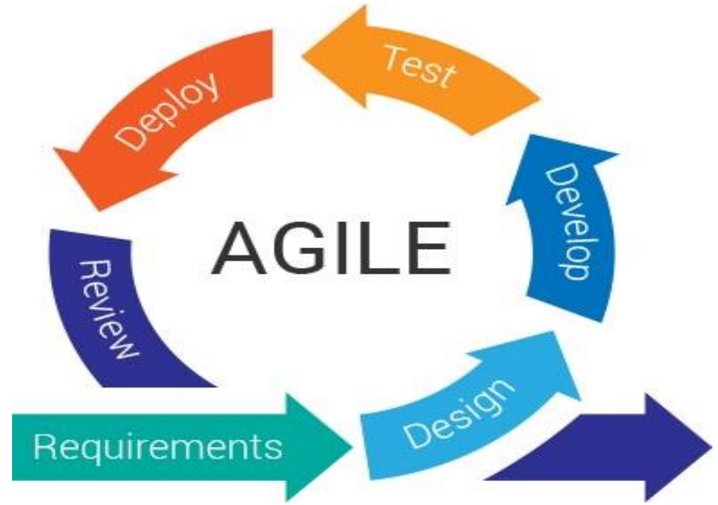
- Crystal Technologies
- Atern(DSDM)
- Feature-driven
- Scrum
- Extreme Programming (XP)



Agile Methods

Agile

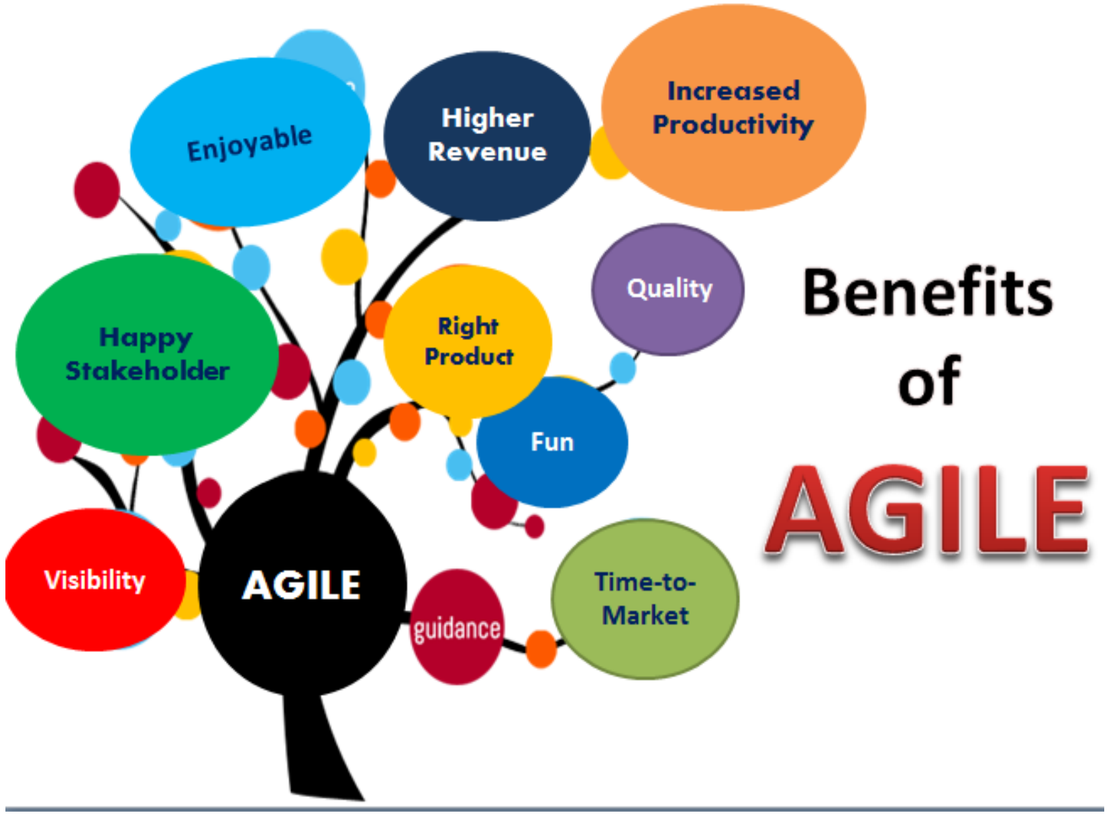
- Iterative
- Feature Requirements – many small parts
- Each iteration is small
- One increment at a time
- No long term
- Time-box



Agile 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



Extreme Programming (XP)

Extreme Programming (XP)

XP

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

CHRYSLER

Extreme Programming (XP)

Core Values

- Communication and Feedback
  - Face to Face
  - Working increment

- Simplicity
  - Simplest Design

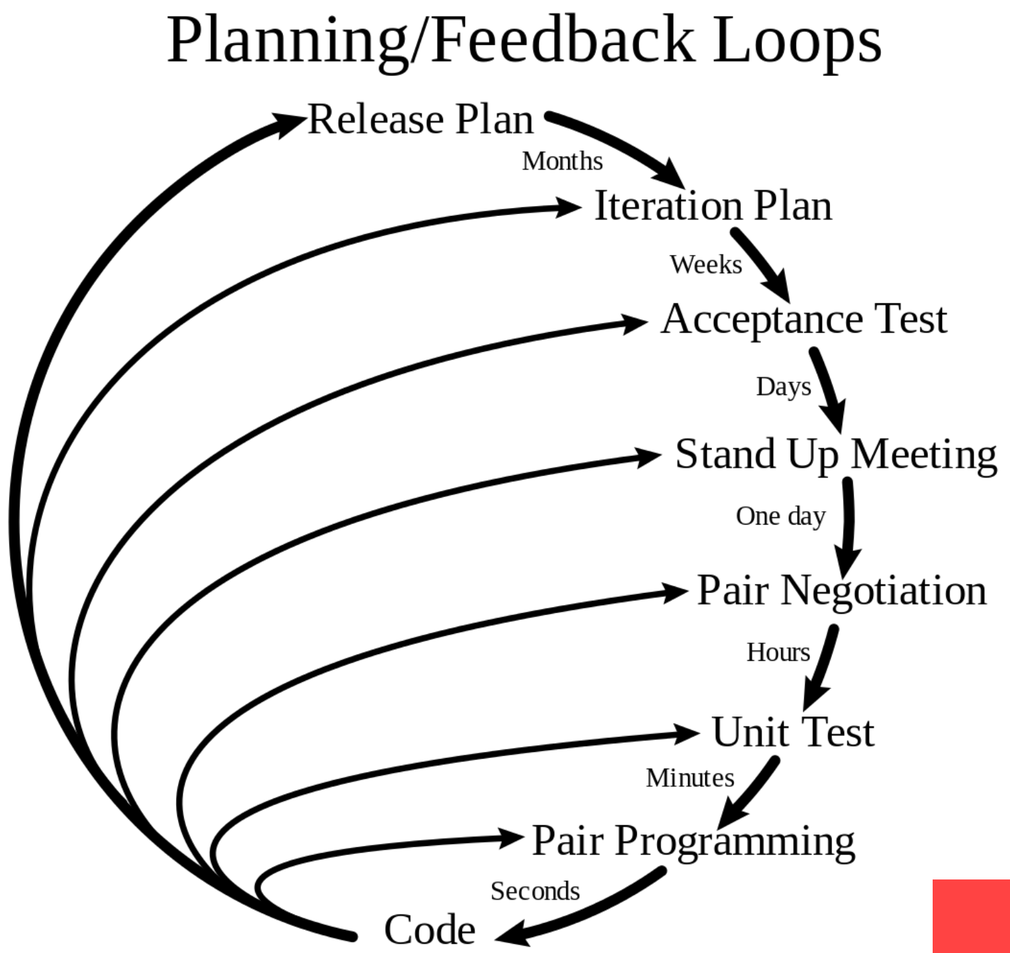
- Responsibility
  - Developer Responsible

- Courage
  - Throw away work
  - To try new ideas

Extreme Programming (XP)

Core Practices of XP

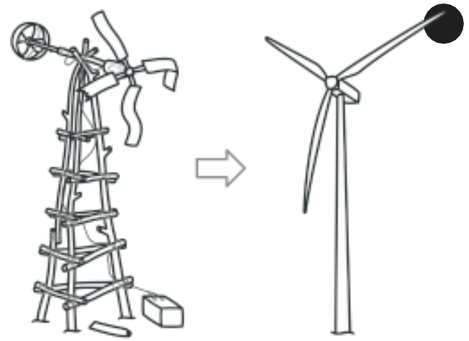
- The planning exercise
  - Features Negotiation
  - Story
  - Atern's MoSCoW
- Small releases
  - Short as possible
  - Max 2 months
- Metaphor
  - Real world terminology
- Simple Design



Extreme Programming (XP)

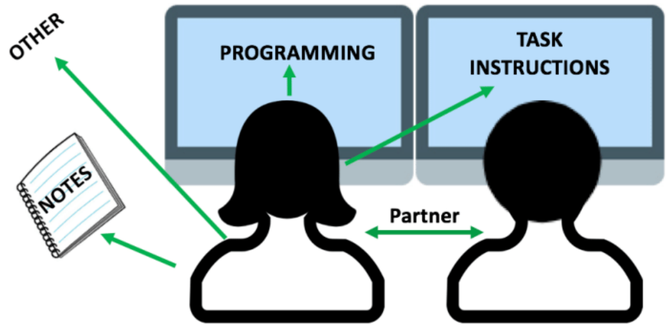
Core Practices of XP

- 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

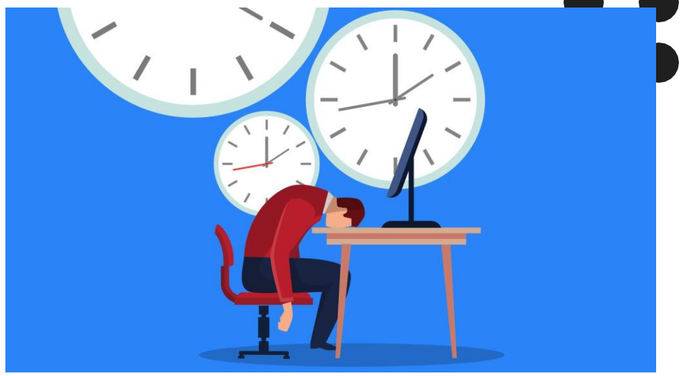


- Collective Ownership

Extreme Programming (XP)

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

Extreme Programming (XP)

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

Extreme Programming (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