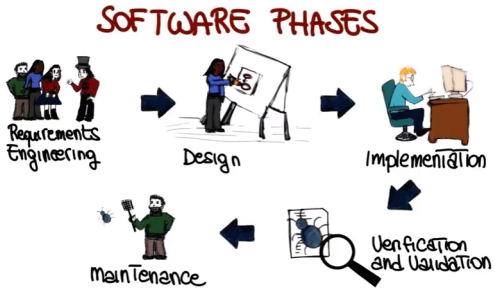
DA-IICT

IT 314: Software Engineering

Software Process Models - AGILE



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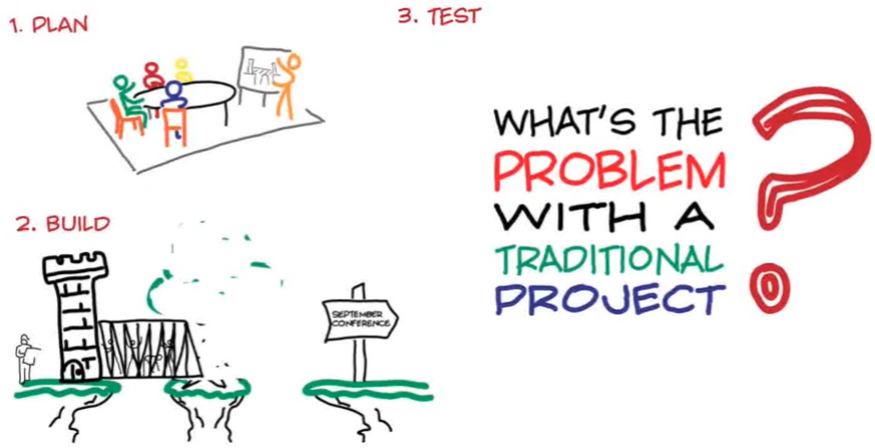
Agile Software Development

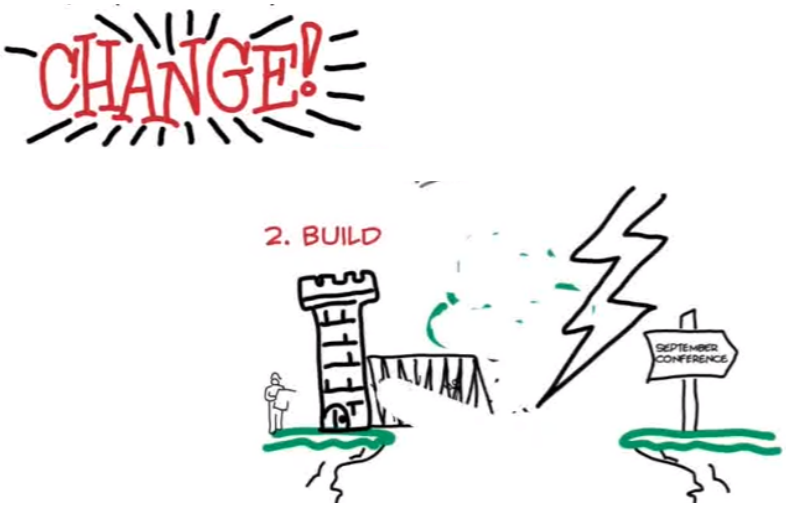
Agile reduces the risk by delivering the value of the project very early

Agile Software Development

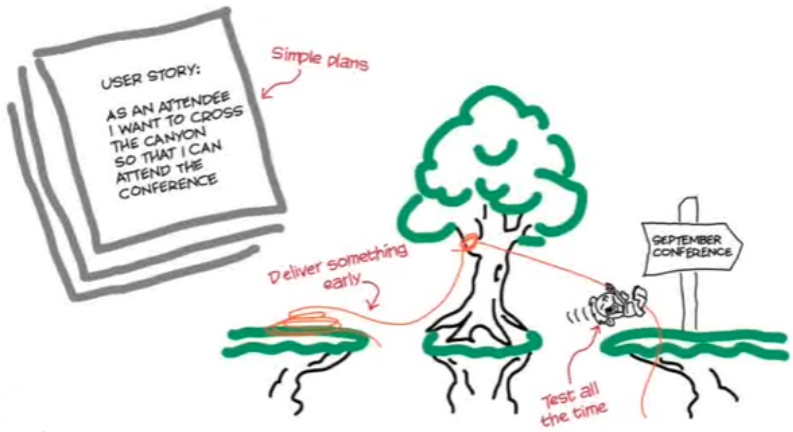
Traditional Software Development – Opposed to Agile



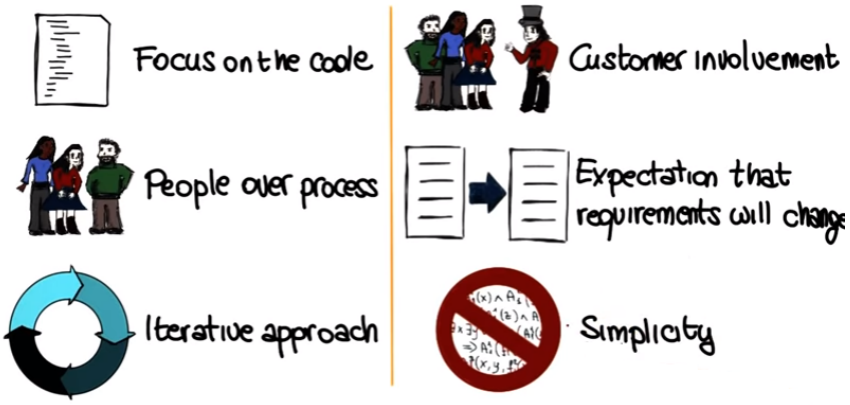
Agile Software Development



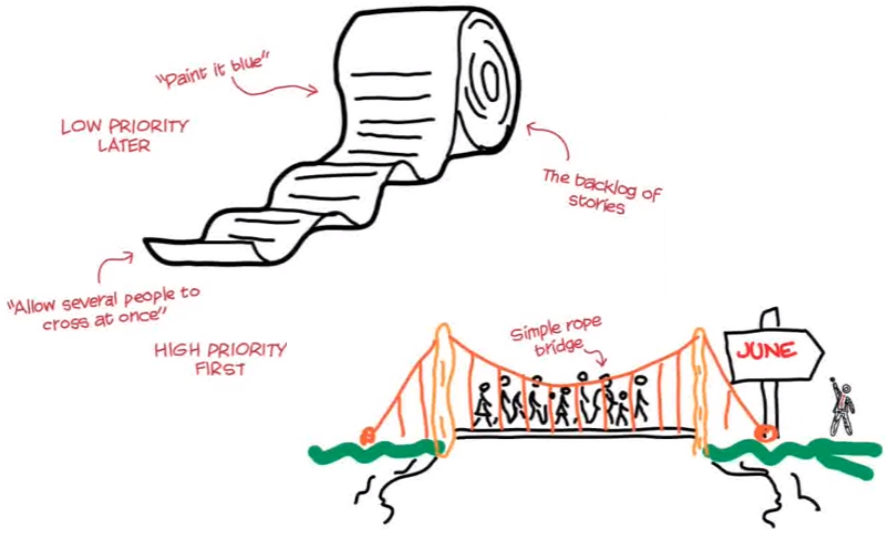
Agile Software Development



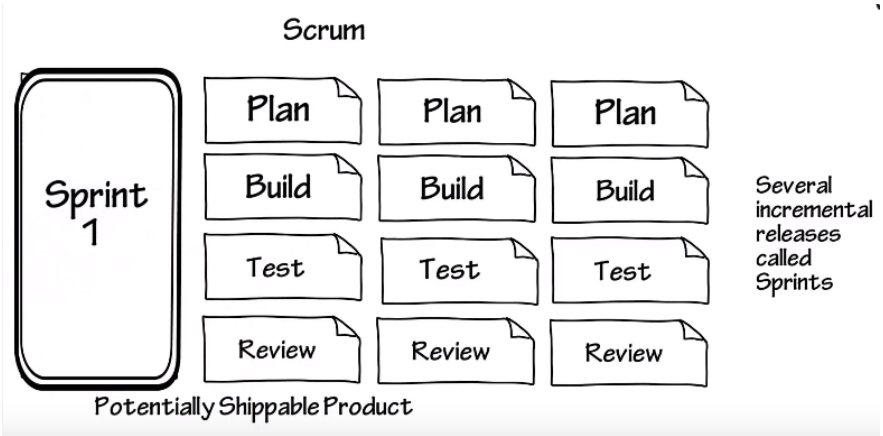
Agile Software Development



Managing Requirements - Agile



SCRUM



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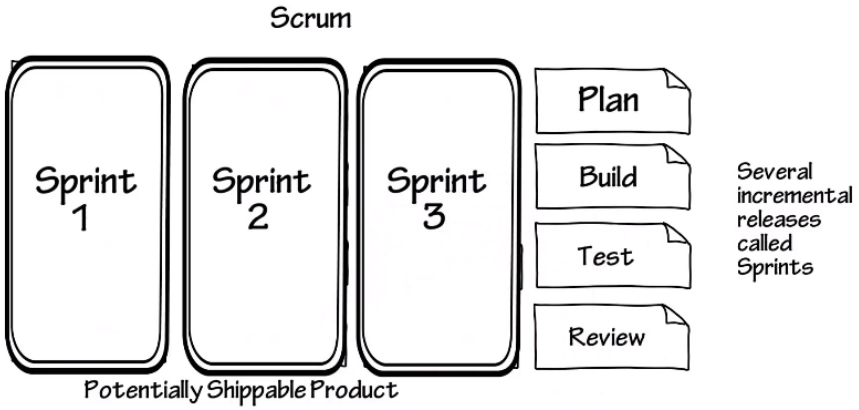
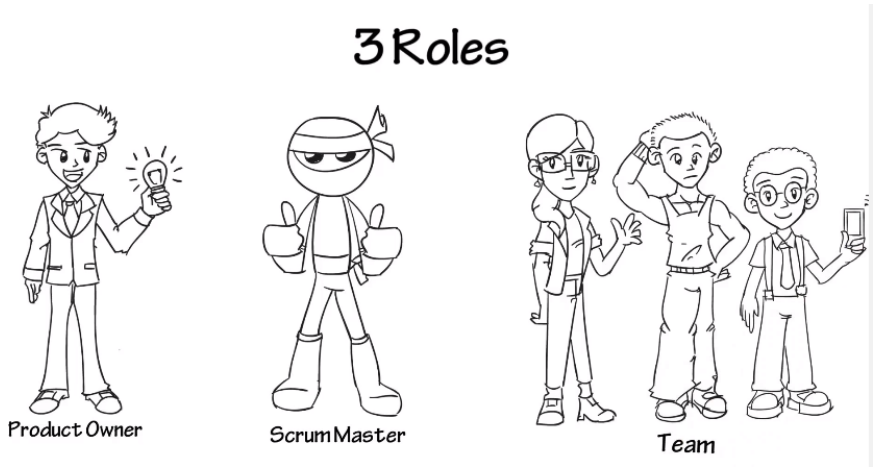
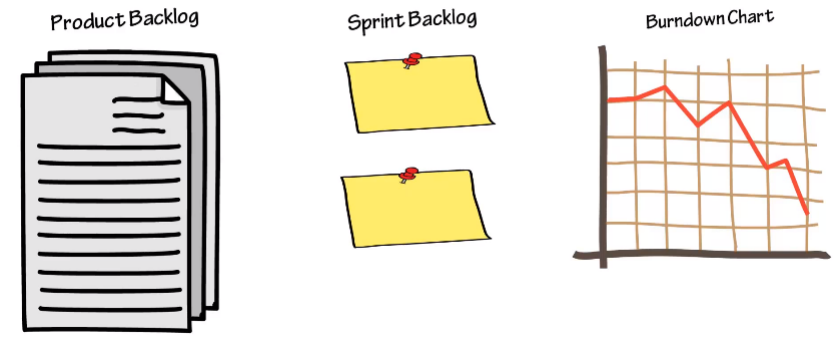


Specification - User Stories

3R - SCRUM

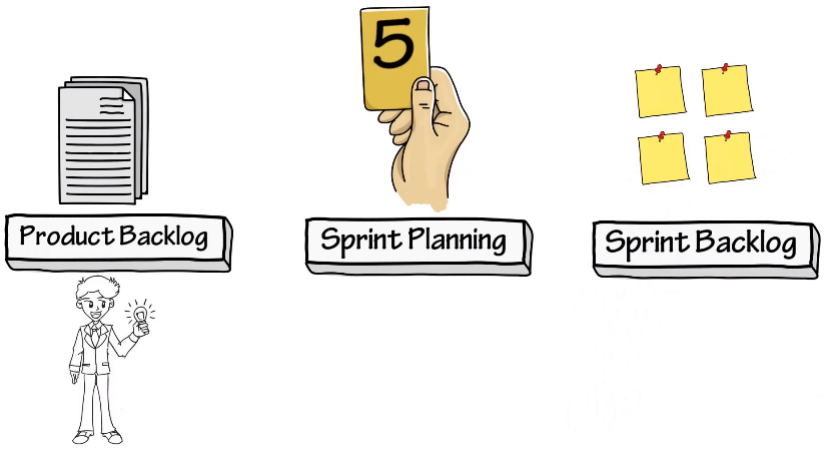


3A - SCRUM

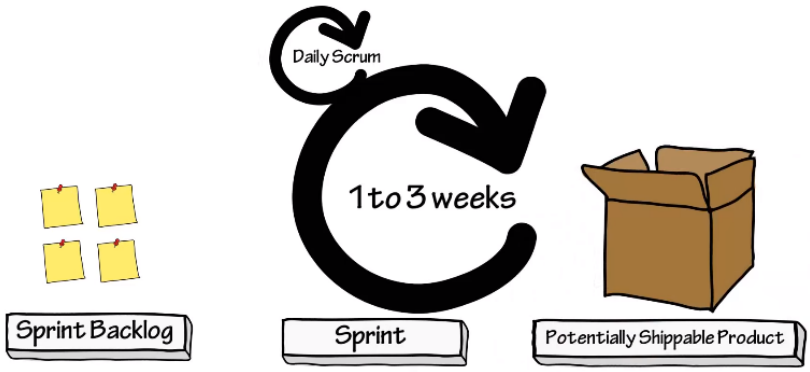


3C - SCRUM

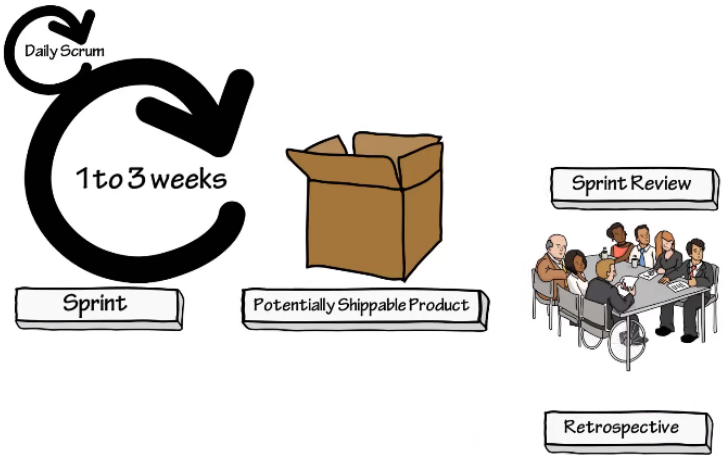
SCRUM Process



SCRUM Process



SCRUM Process



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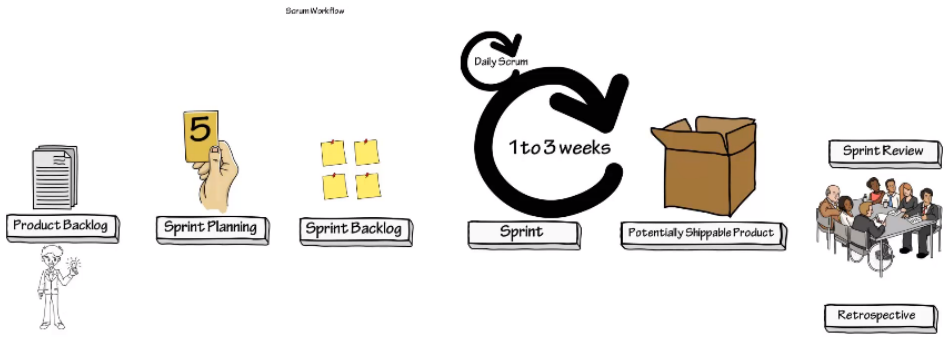


Repeat this workflow for each sprint

Agile

DEVELOPING IS LIKE DRIVING

MENTALITY OF SUFFICIENCY

How would you program if you had all the time in the world?

- Write tests
- Restructure often
- Talk with fellow programmers and with the customer often

Extreme Programming consists of

Pair Programming

Code Review

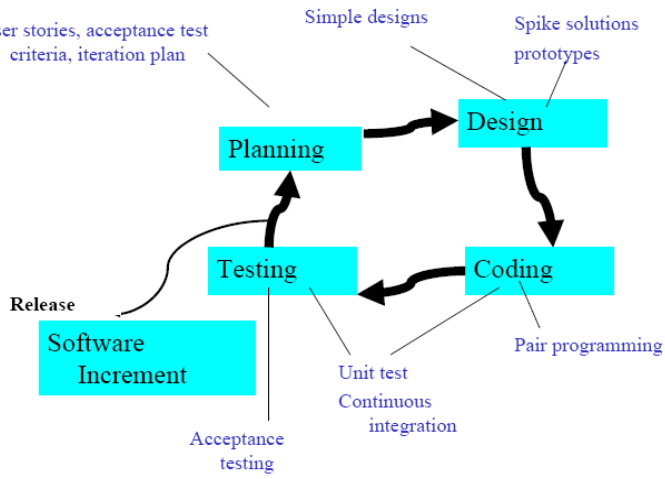
Unit Testing

Integration Testing

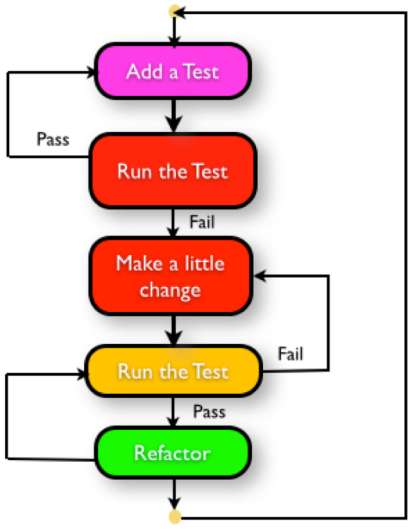
Planning Game

Courage

Respect



TDD – Test Driven Development



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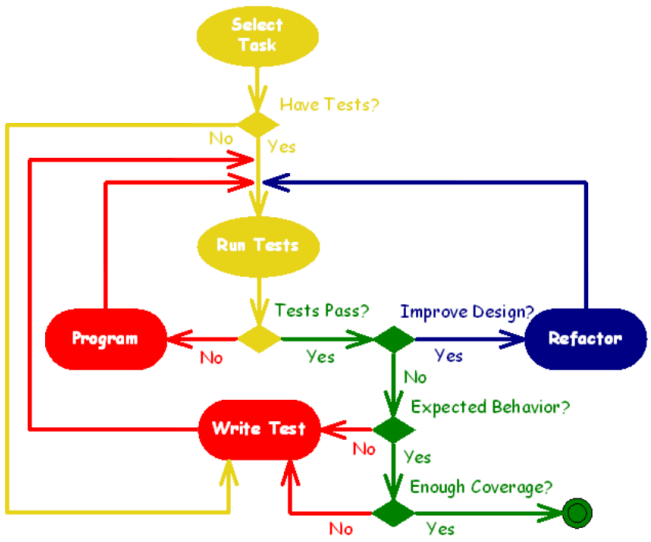

TDD – Test Driven Development

Test-driven development is not about testing.

Test-driven development is about development (and design), specifically improving the quality and design of code.

Cycle:

- Write the test
- Run the test (there is no implementation code, test does not pass)
- Write just enough implementation code to make the test pass
- Run all tests (tests pass)
- Refactor
- Repeat

TDD – Test Driven Development

Ensures quality

Keeps code clear, simple and testable

Provides documentation for different team members

Repeatable tests

Enable rapid change

Questions??

Next Lectures…
Other Process Models
(RUP, Agile (XP) and so on…., CMM