




# IS4301 Agile IT with DevOps – Lecture 4

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# Learning Objectives

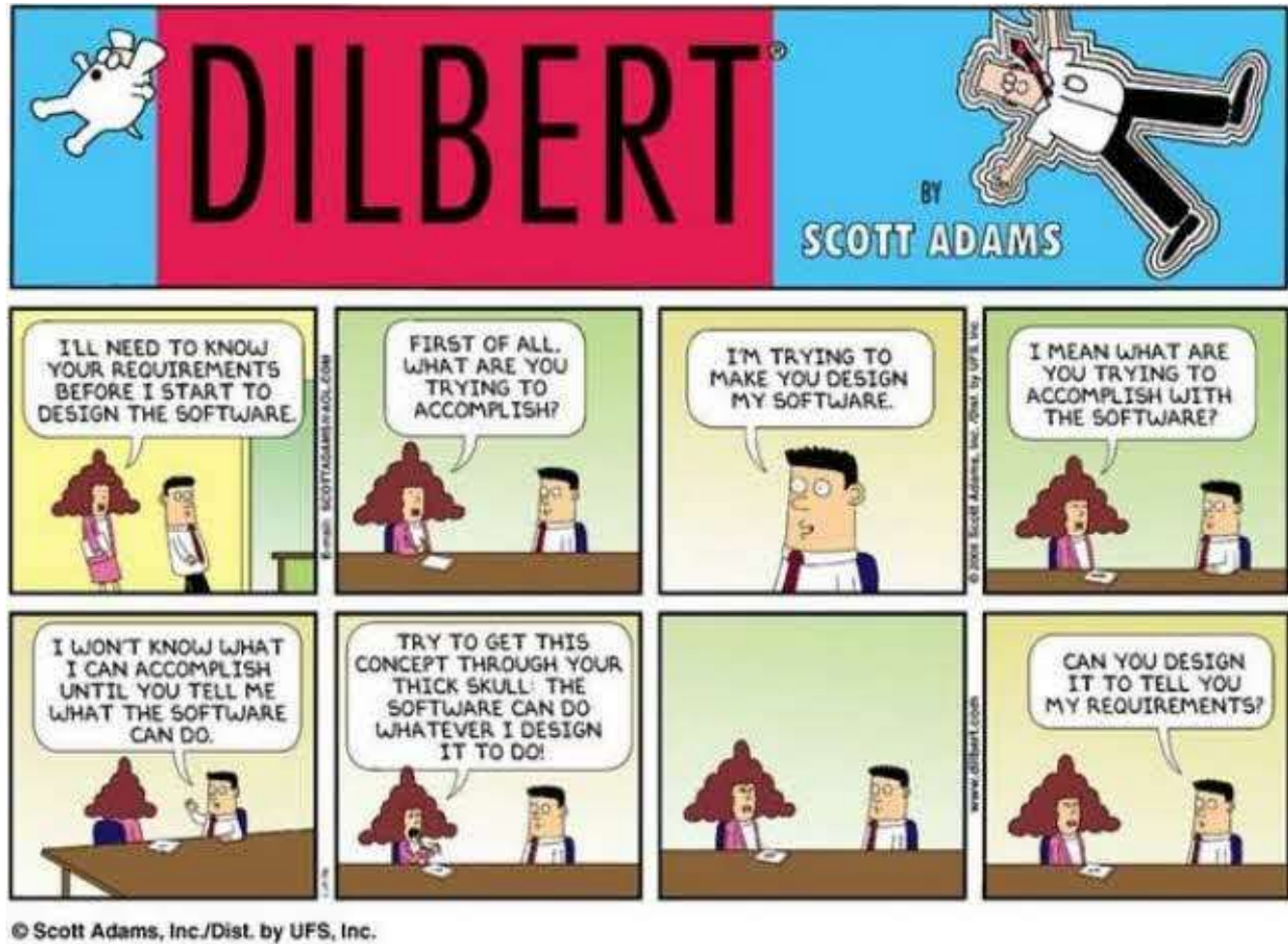
At the end of this lecture, you will understand:

- Agile lifecycle and ceremonies



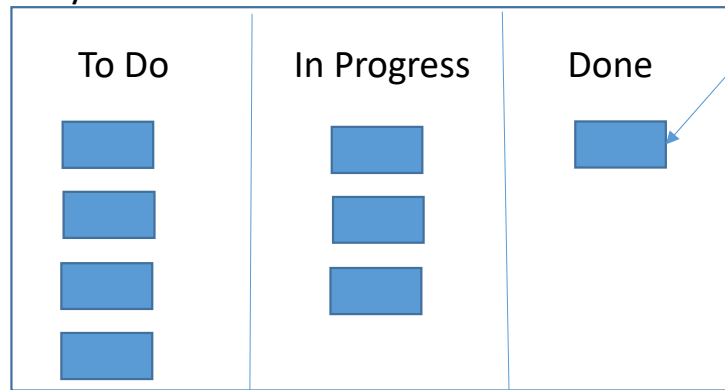
# Activities of an Agile Sprint Team in a Typical Day

- Join his/her sprint teams at sprint team table.
- Sprint planning
- Solution design
- Daily stand-up
- Backlog grooming
- Pair programming
- Spike programming
- Agile community of practice sessions
- Sprint demo
- Retrospective
- Celebrations



# Daily Standup

Story board

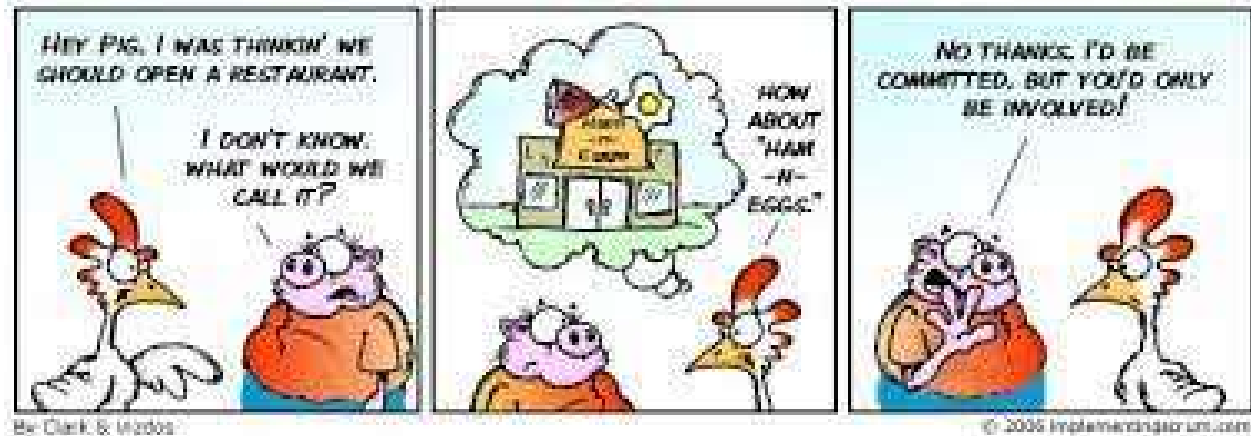


User story

As a planner, I will like to select and change starting and ending positions on a graphical map.

10 min:

- What I did yesterday?
- What I'm going to do today?
- Any problems?





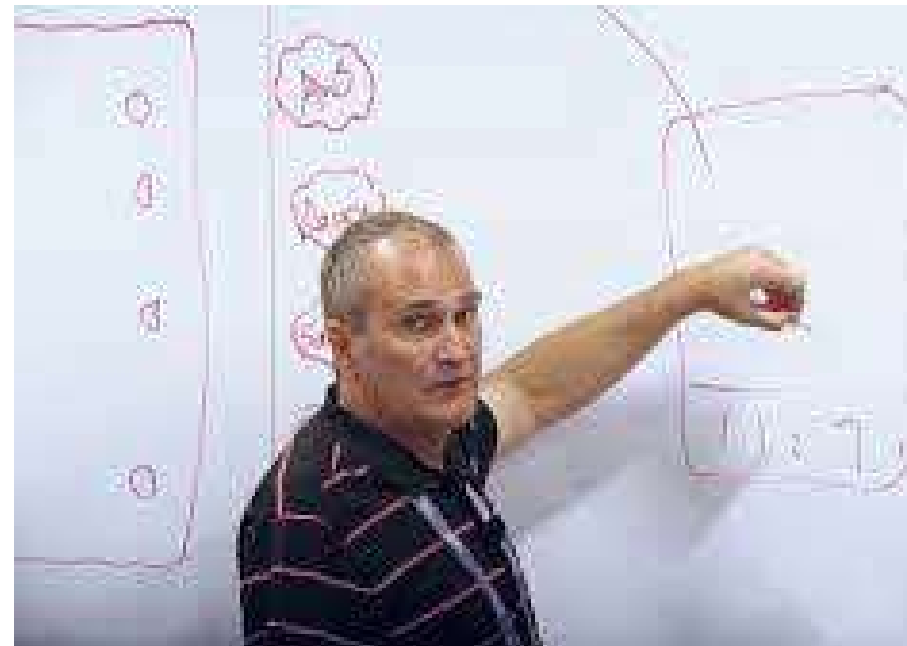
# Sprint Planning

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- Product Owner describes what is to be developed in next sprint. Sprint team defines how (which tasks necessary) to deliver, and create the Sprint Backlog.

# Solution Design

- Breakout to brainstorm design for certain user story implementation, usually over whiteboards in collaboration areas.



# Backlog Grooming

- Review & update backlog priorities prior to sprint planning.
- Open Meeting

## Backlog Grooming Meeting



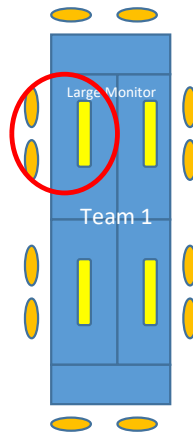


# Pair Programming

Two developers working on a single computer

- Driver: writes code
- Navigator: reviews code during coding

Switch of roles in roughly 25 mins coding and 5 mins break.



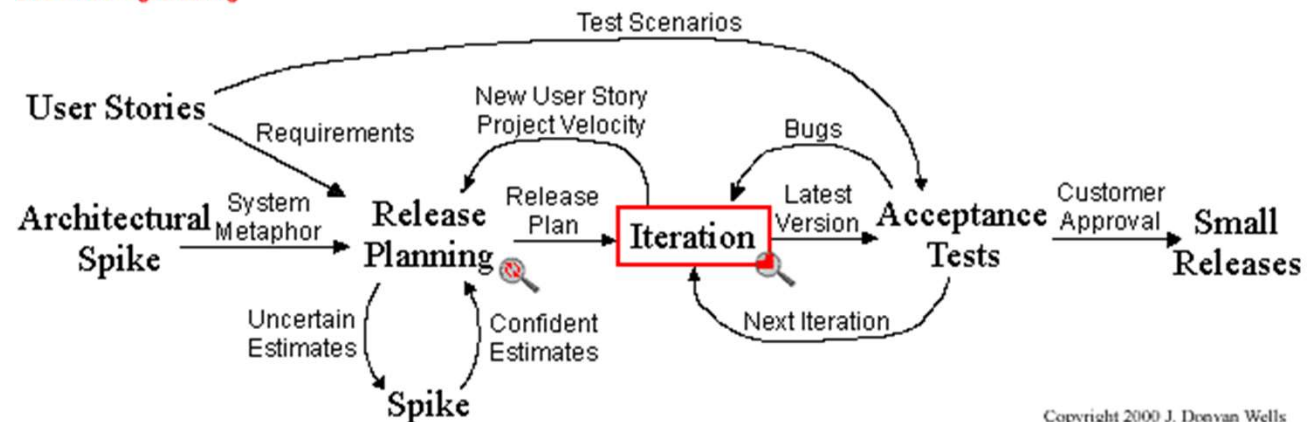


# Spike Programming

Tries to figure out answers to tough technical or design problems with simple program to explore potential solutions.



## Extreme Programming Project



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# Agile Community of Practice Sessions

- **Communities of Practice (CoPs)** are organized groups of people who have a common interest in a specific technical or business domain.



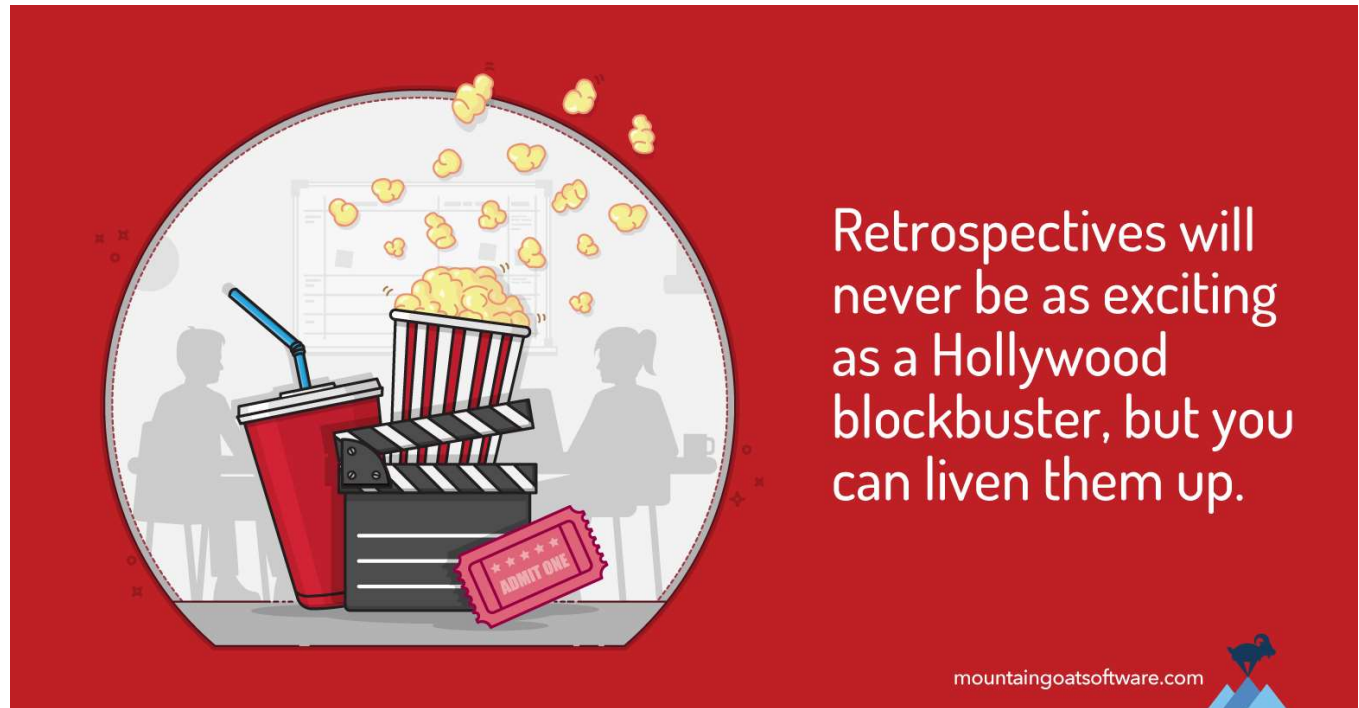
# Sprint Demo

- Demonstrate & review the work completed by the team in this sprint. Gain feedback and acceptance from PO & Stakeholders



# Celebrations!

Eat Pizza,  
celebrate team  
success - in Agile  
these can happen  
weekly instead of  
every 6 months!



Retrospectives will  
never be as exciting  
as a Hollywood  
blockbuster, but you  
can liven them up.

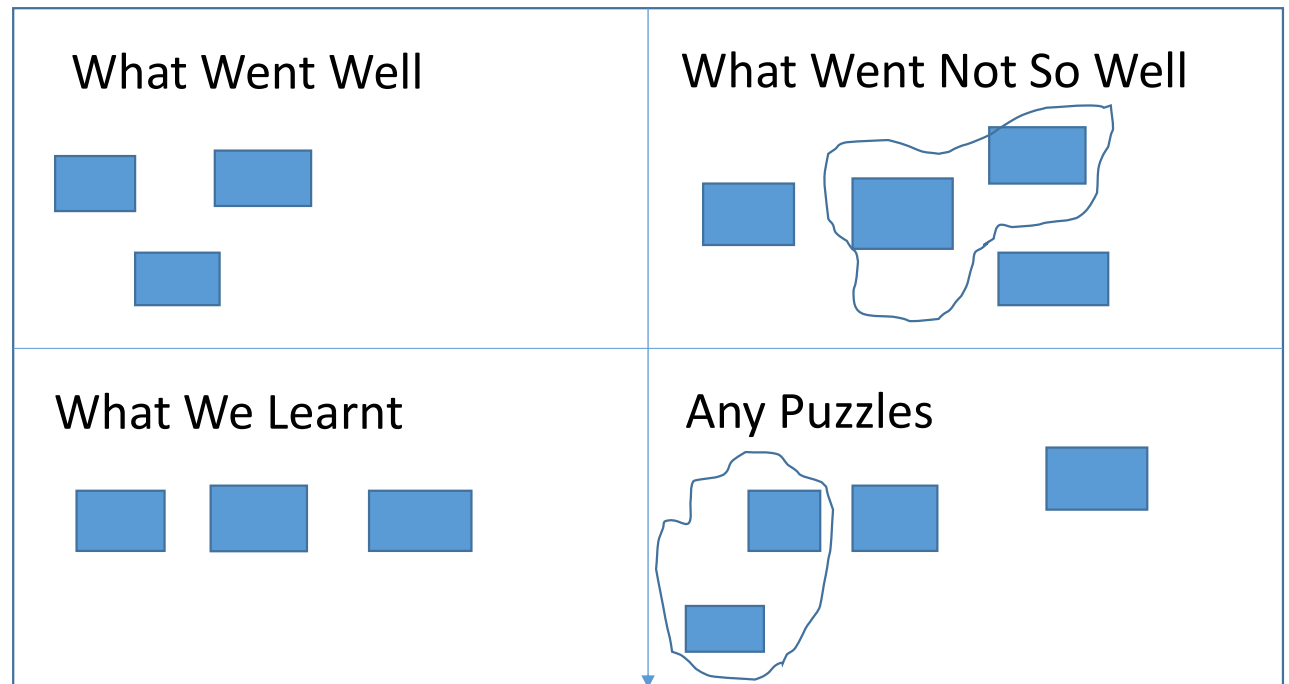


# Retrospectives

Team gets together to review the process during the sprint, what worked, what can be improved

## Principles

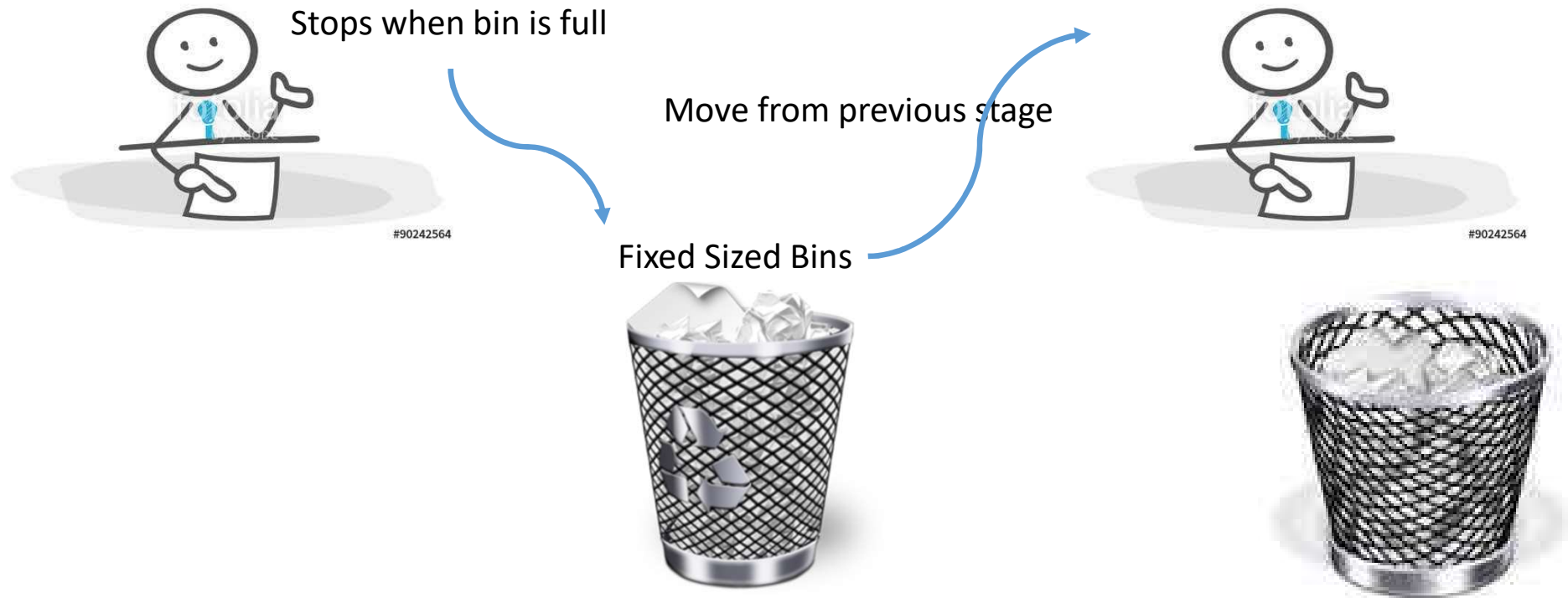
- Simplicity
- Feedback
- Courage
- Respect
- Communication



# Story Boards

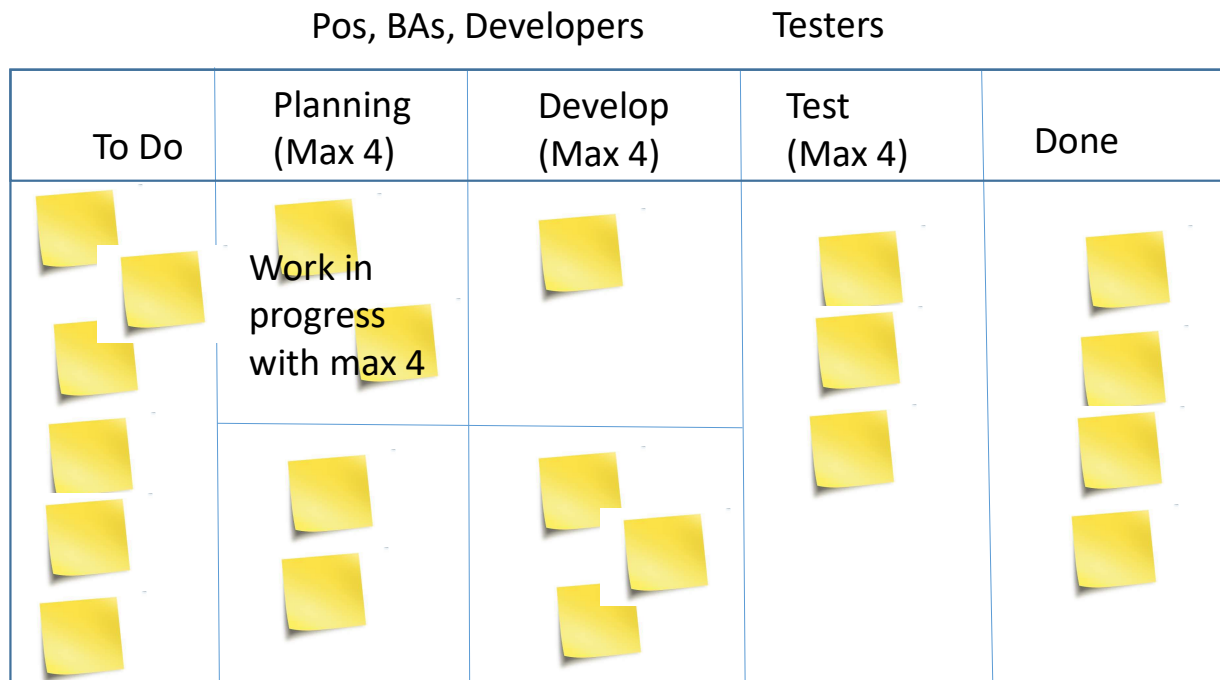
To Do	Planning	Develop	Test	Done

# Kanban





# Story Boards with Kanban



Cards in bottom  
half ready to  
move to next  
stage

Only Testers can move  
cards from Develop to  
Test

# Inception

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Not part of the Agile, but can be useful.

Upon approval of business case, Inception helps to set common understanding among team and stakeholders by elaborating the vision, objective and deliverables (MVP) of the product to be built and align them with the various key stakeholders of the project.

Can also be used in pre-team setup.



# Technical Practices

## Test First Programming

- Test-Driven Development
- Unit Tests
- Iterative
- Incremental

## N-min Build

- Build, Deploy, Test
- Parallel
- Dev/Test Env in Cloud?
- Functional Tests

## Continuous Integration

- Configuration management
- Branching (code, build)

# Putting all together ... the Agile life cycle and ceremonies

