A Brief Introduction to Agile Development

CS480 Software Engineering

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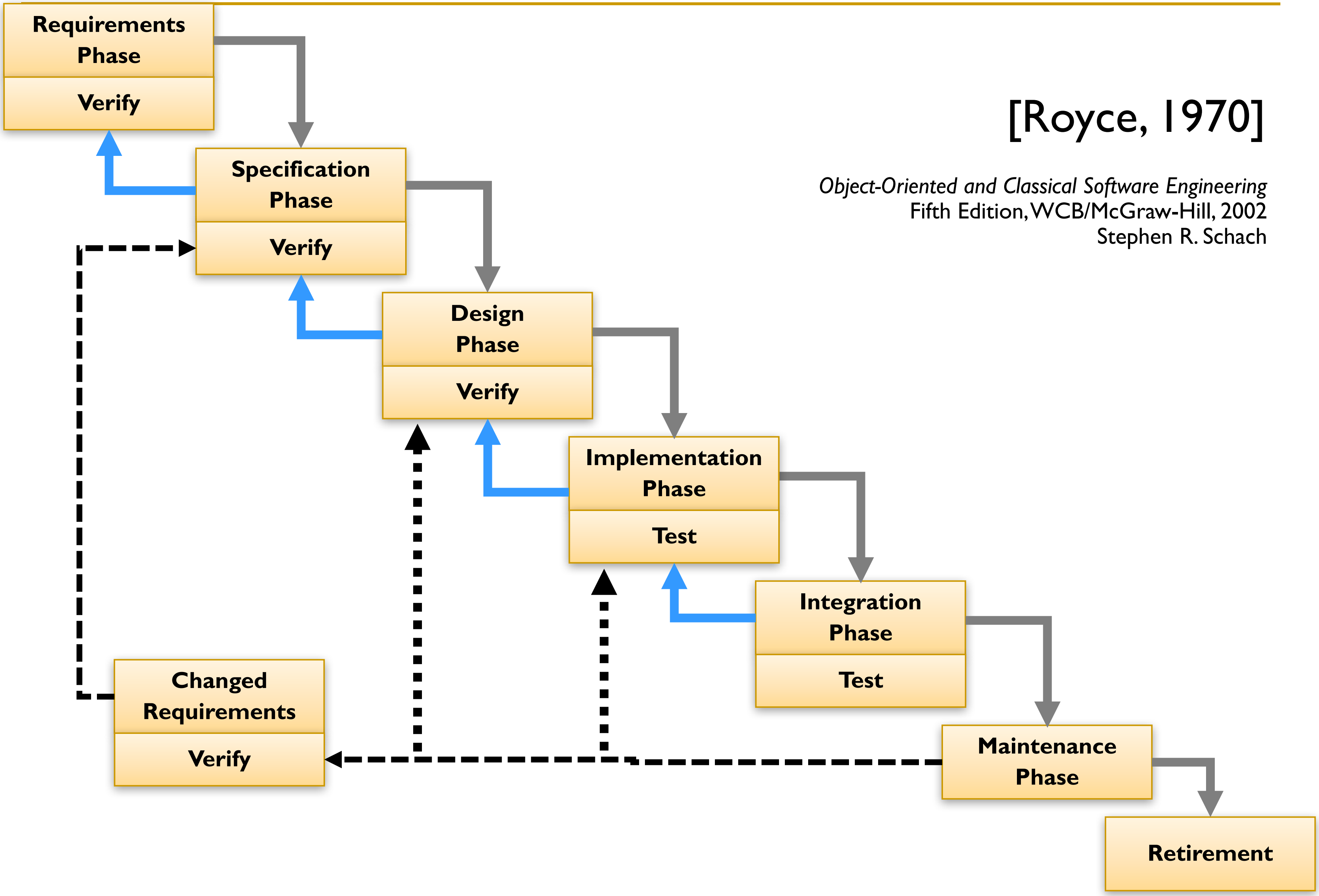
CAL POLY POMONA

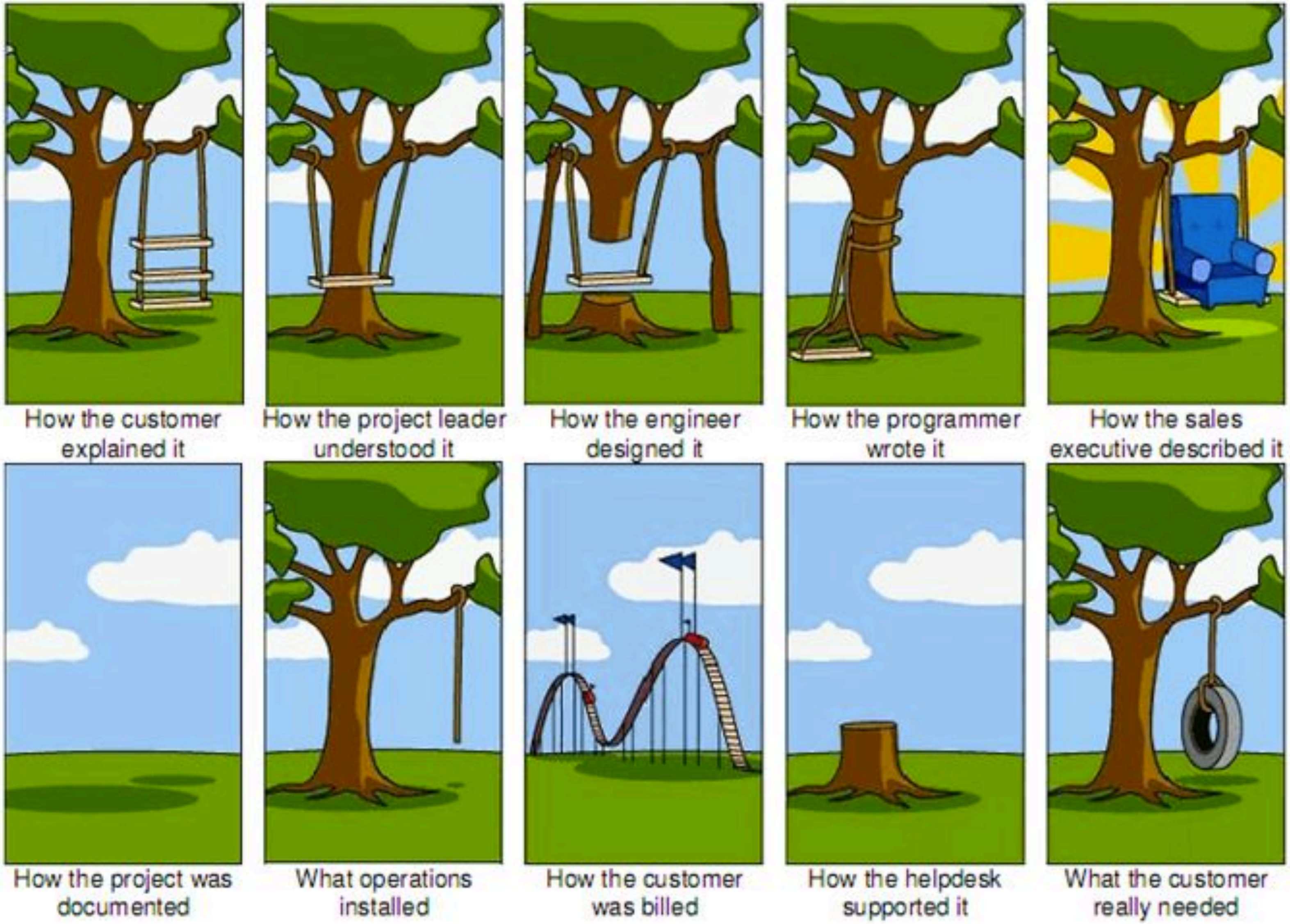
Software Lifecycles – Waterfall Model



[Royce, 1970]

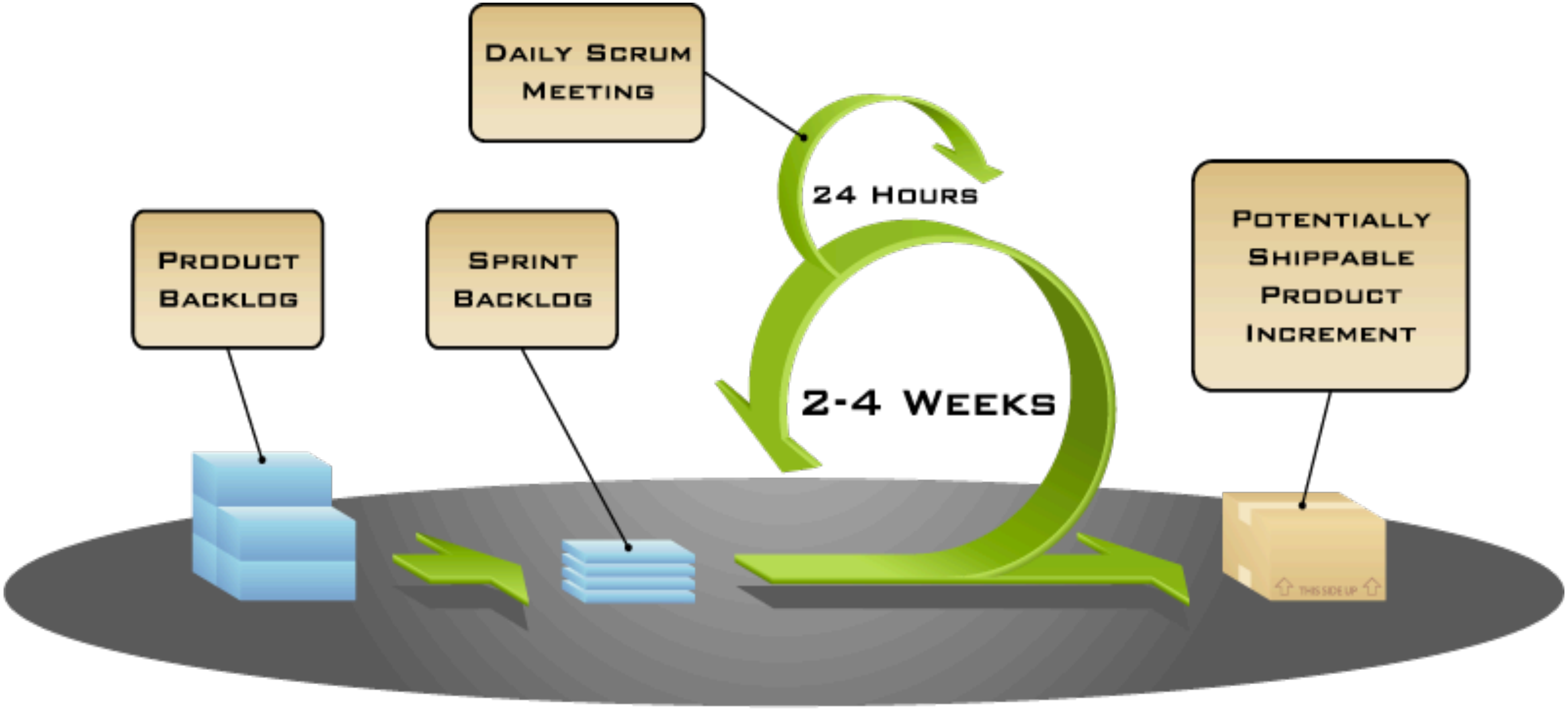
Object-Oriented and Classical Software Engineering
Fifth Edition, WCB/McGraw-Hill, 2002
Stephen R. Schach

From Requirements to Agile


How the customer explained it
How the project leader understood it
How the engineer designed it
How the programmer wrote it
How the sales executive described it
How the project was documented
What operations installed
How the customer was billed
How the helpdesk supported it
What the customer really needed

Agile - Build Software Incrementally

- Agile software development encourages rapid development iterations, welcomes requirement changes, and makes deliveries more frequently



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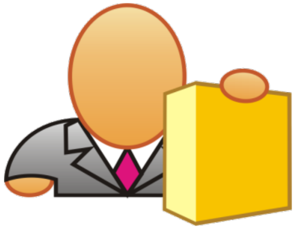
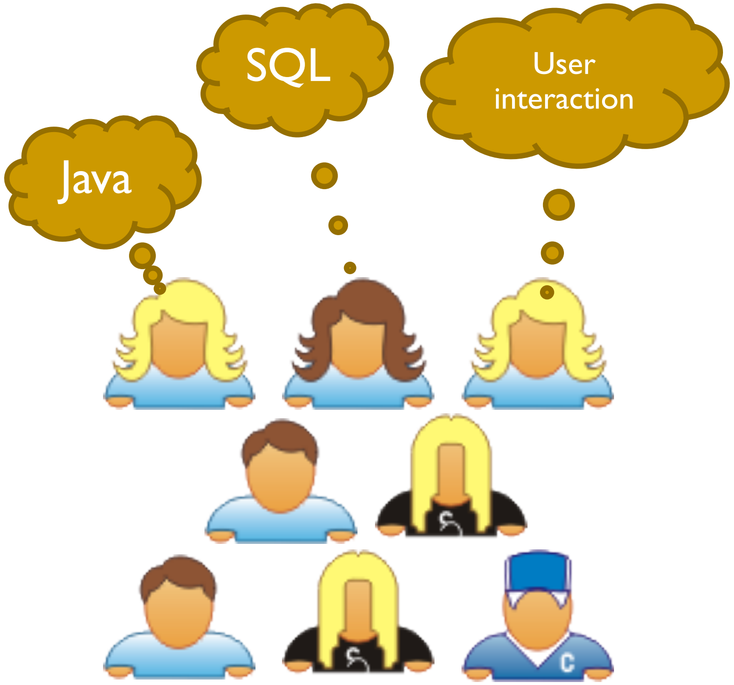
Scrum Team



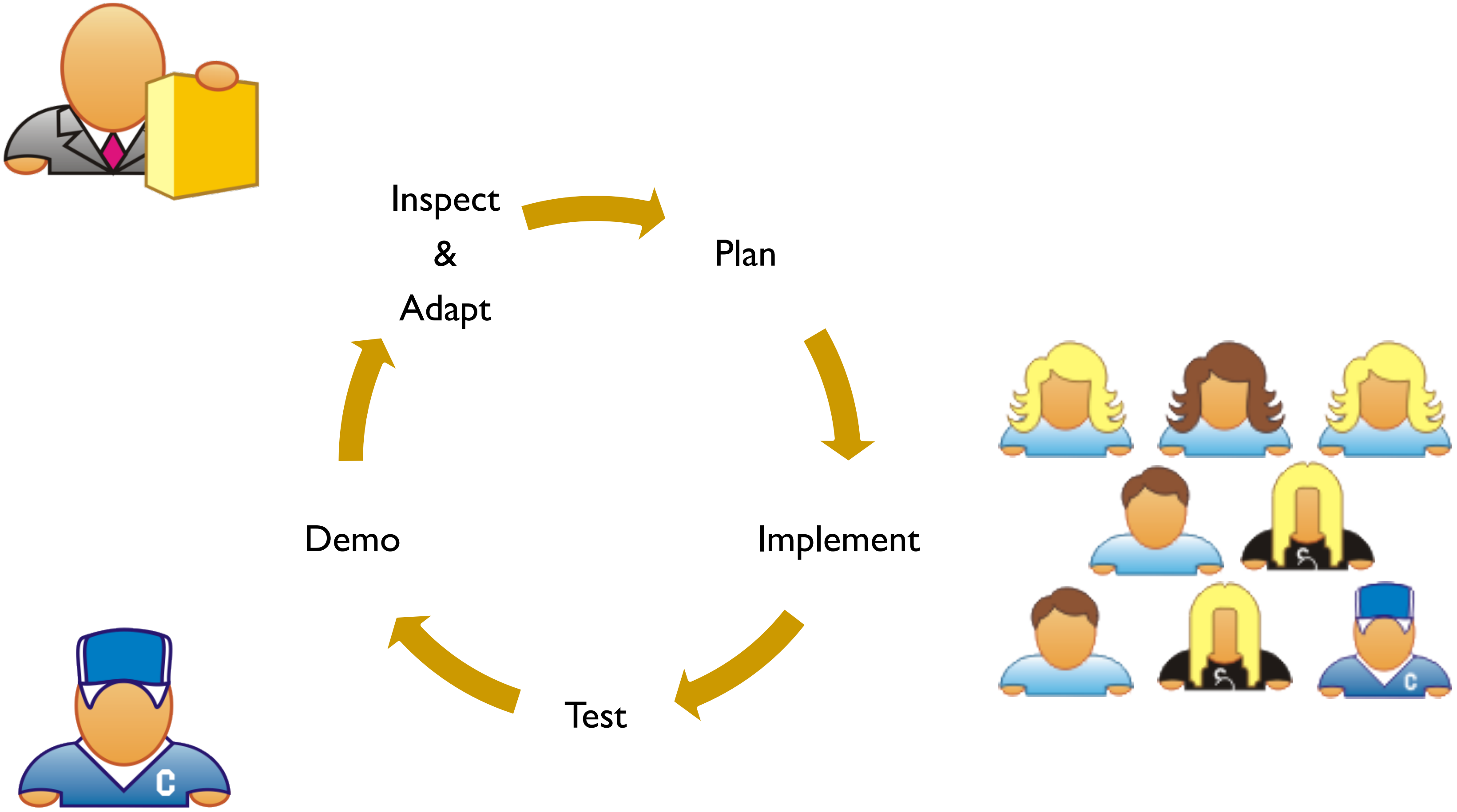
Product owner

Scrum Master



Team

Scrum Team



Inspect
&
Adapt

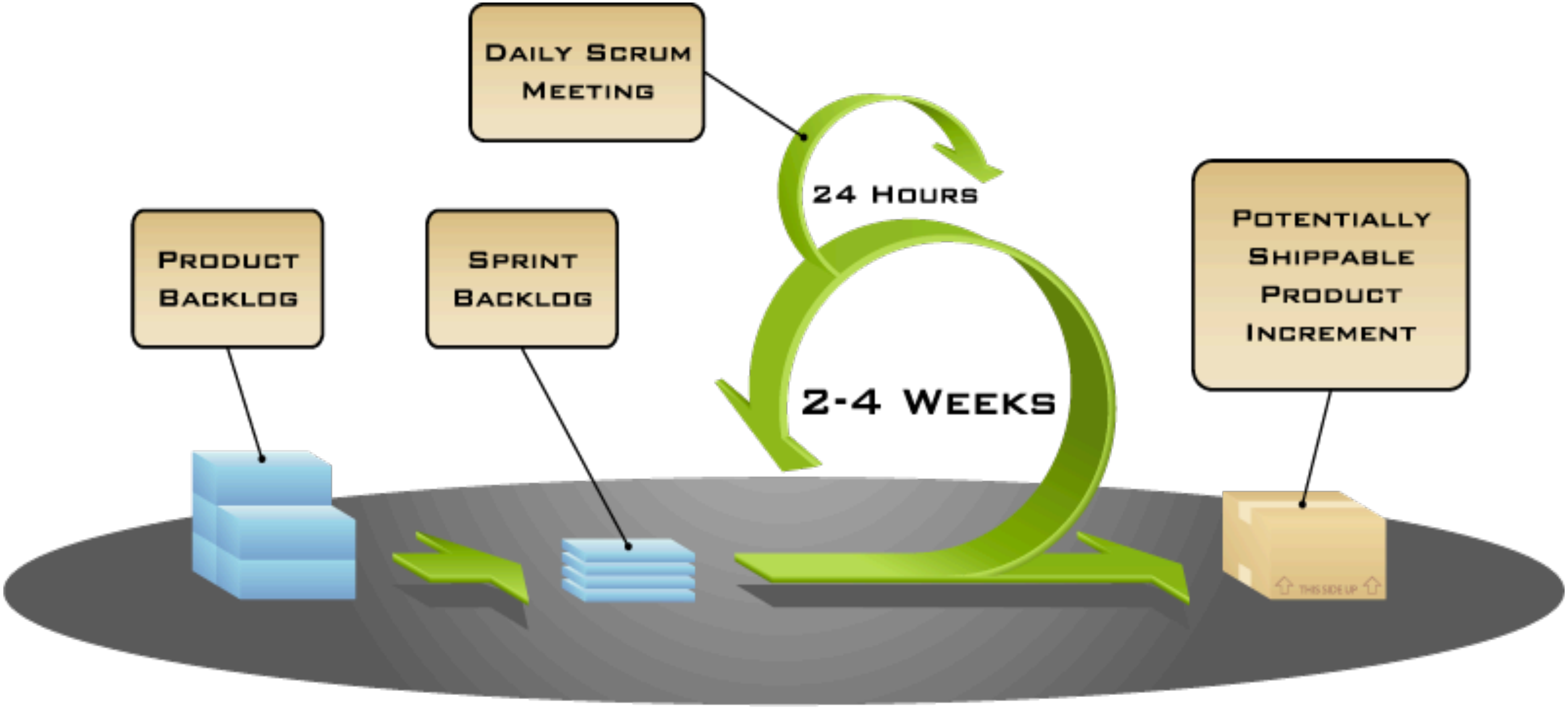
Plan

Implement

Test

Demo

Agile - Build Software Incrementally



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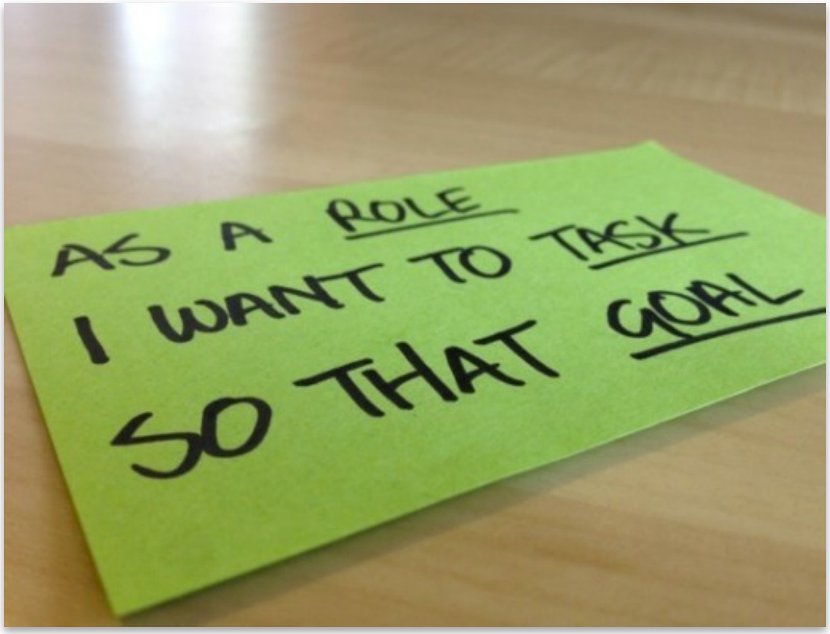
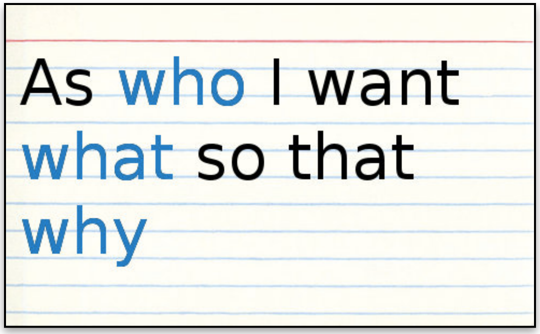
Build Backlog – Write User Stories

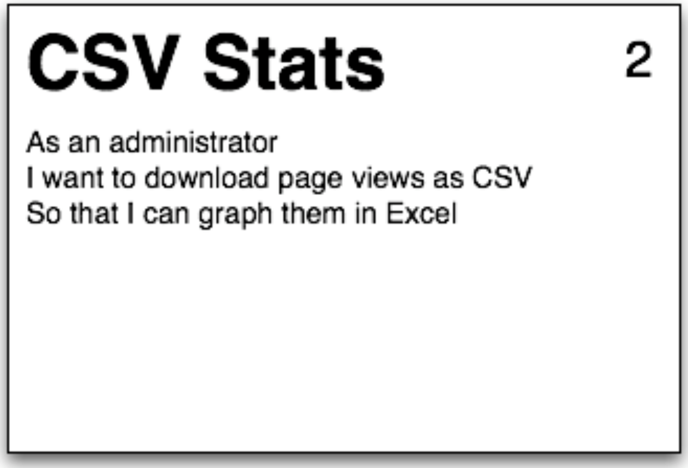
- A piece of functionality valuable for the end-user



AS A ROLE
I WANT TO TASK
SO THAT GOAL



As who I want
what so that
why



CSV Stats 2

As an administrator
I want to download page views as CSV
So that I can graph them in Excel

Planning Step 1 – Prioritize Tasks

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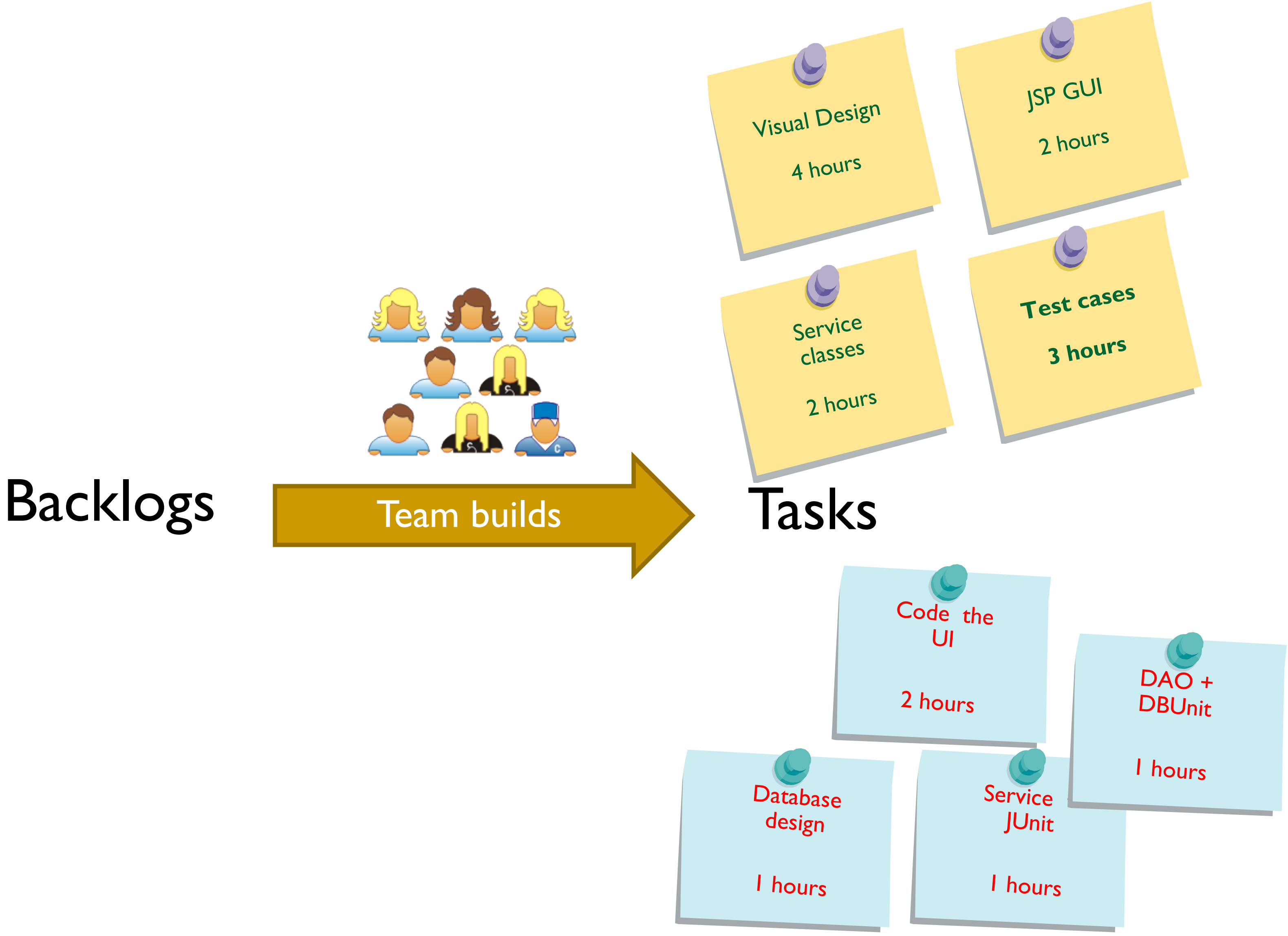
Planning Step 2 – Estimate Efforts



Backlogs

Team builds

Tasks

Visual Design

4 hours

JSP GUI

2 hours

Service classes

2 hours

Test cases

3 hours

Code the UI

2 hours

DAO + DBUnit

1 hours

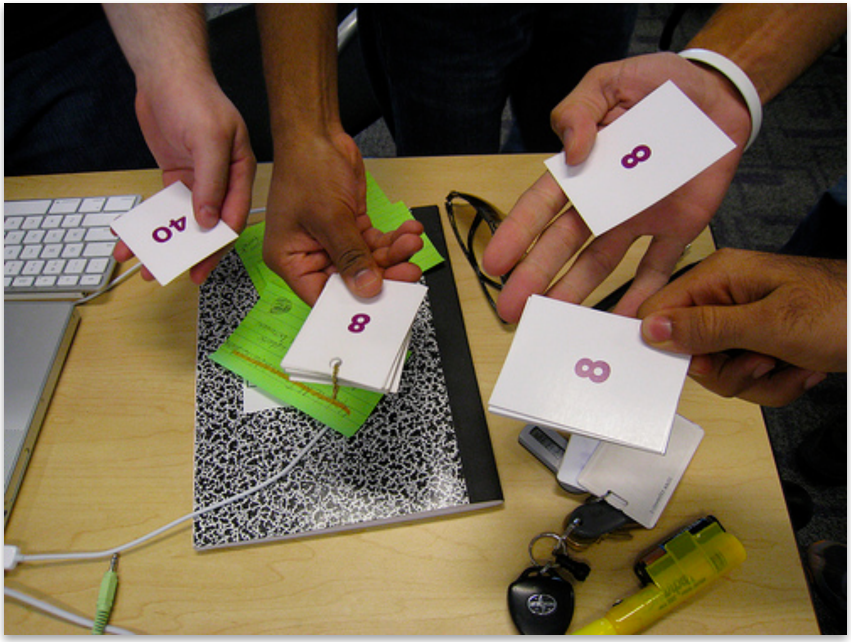
Database design

1 hours

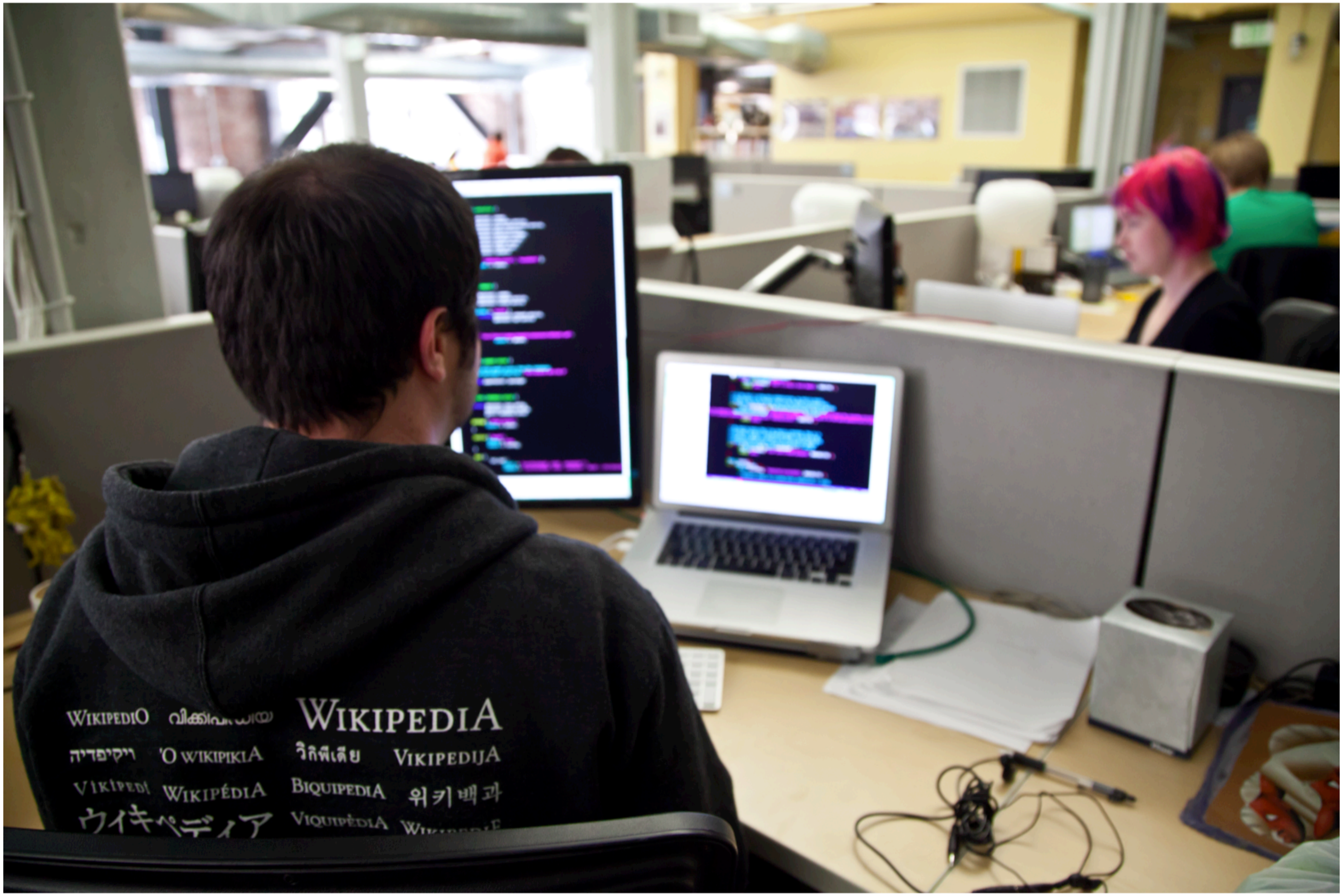
Service JUnit

1 hours

Planning - User Story Points Estimation



Just Do It!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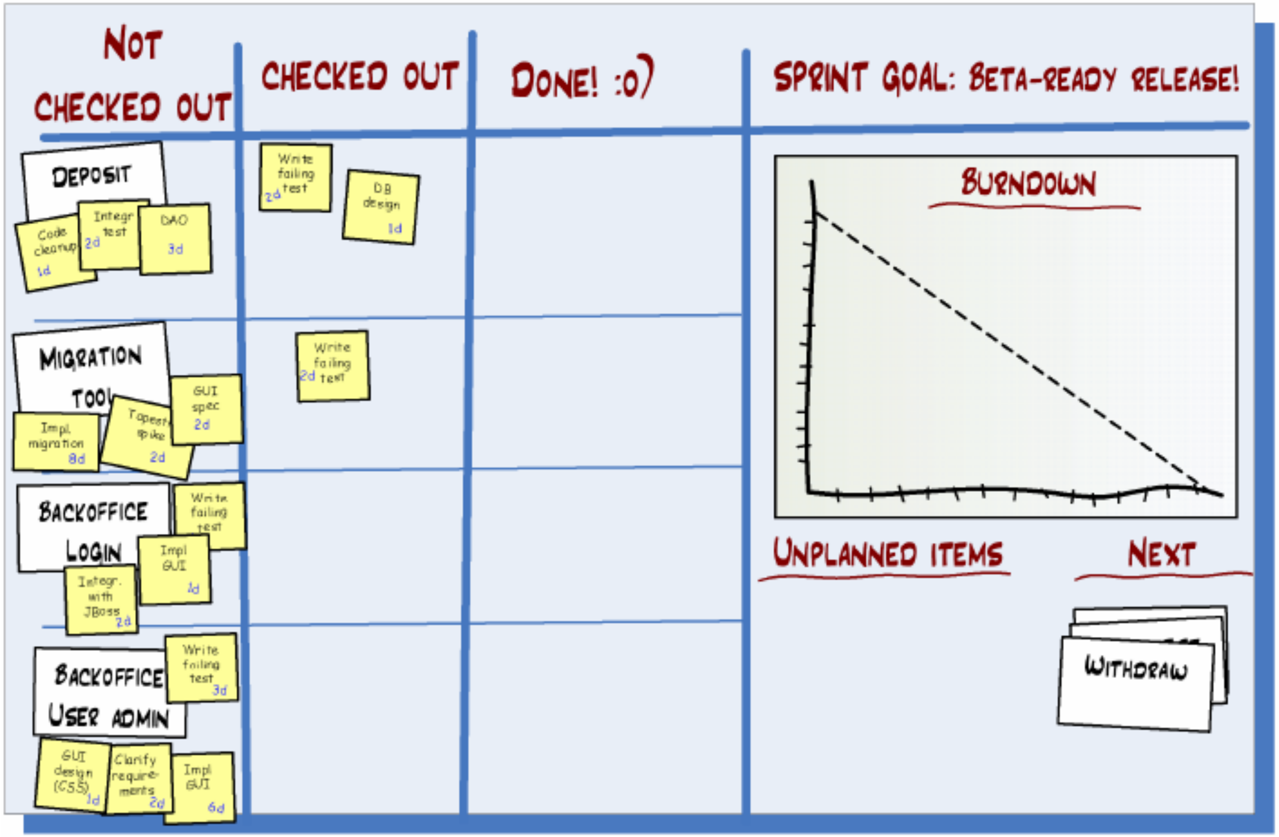
위키백과
ウィキペディア
VIQUIPÈDIA

Daily Scrum (Standup)



Max. 15 minutes

- What did I do yesterday?
  - What will I do today?
    - Is there anything in my way?

Daily Scrum (Standup)

After the Sprint

Sprint Review

Present what team accomplished

Demo new features developed or underlying architecture

Invite whole world

Sprint Retrospective

Whole team discusses the results of last sprint

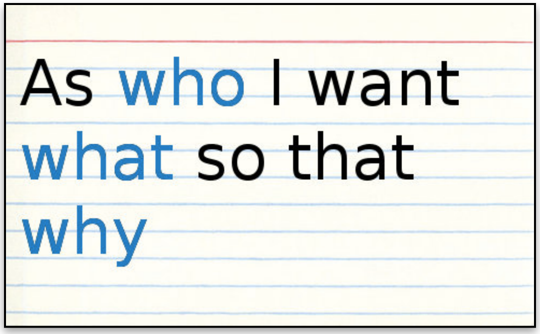
Start doing

Stop doing

Continue doing

Practice

1. Make the backlogs (user stories) for your team project
2. Prioritize the tasks
3. Estimate the efforts
4. Plan what to accomplish for the first sprint



As who I want what so that why