Agile 101

- *You can't gather all the requirements up front*
- *The requirements you do gather **will** change*
- *The is always more to do than time and money will allow*

-- The Agile Samurai, J. Rasmusson

21% of software projects are considered "failed", 42% "challenged"

--2010 study

Why Agile?

- Too many projects not delivered
- Software taking too long to get to market
- Requirements not met
- High costs to make changes after delivery
- Having to “get it right” first time/up front
- Too many defects
- Unhappy Customers

Software Development Methodologies

- Code-fix" (or no process)
- Structured, heavy weight methodologies a.k.a. "Plan Driven Methodologies" and "Waterfall"
- Largely influenced by *traditional engineering* and quality processes in industries
- Desire to make software development more *predictable, measurable* and efficient

But Software is Different

- Is not Tangible
- Is not based on Mathematics
- Needs Knowledge Workers

Relevance

Heavy weight methodologies are most successful when:

- Requirements are stable
- Technology is well known and mature
- Everything happens as one would expect
- We are not taking on anything new or unknown
- Coding is ‘copy and paste’

Today, projects with these characteristics are few and far between

Heavy weight methodologies work in some instances, but there are high costs, and the risk in using them in dynamic environments is high

Origins Of Agile

Agile Methods are a reaction to:

- Rigidity of heavy weight methods
- Bureaucracy introduced by heavy weight methods
- Unpleasant Surprises due to lack of visibility
- The myth that a well defined process is more valuable than the people who use it

Agile Follows Systems Thinking

- System Thinking is a way of looking how things influence each other as a whole and not as individual parts
- Focus on Flow, not Function
- Look at the end-to-end process and the value we deliver our customers
    - What do our customers value
    - How do we respond to the demands from our customers, as a system

Agile Follows Lean Thinking

- Add nothing but value (eliminate waste)
- Flow value from demand (delay commitment)
- Minimize inventory (minimize intermediate artifacts)
- Optimize across the organization

The Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan.

That is, while there is value in the items on the right, we value the items on the left more.

12 Principles of Agile

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development.

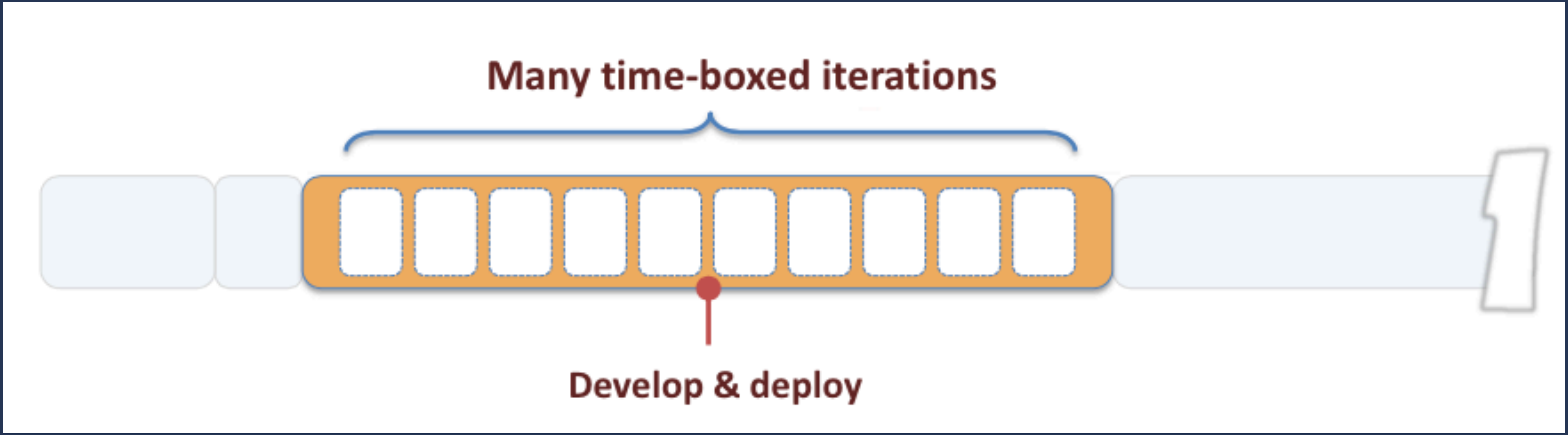
- Deliver working software frequently, with a preference to the shorter timescale.
- Business people and developers must work together throughout the project.
- Build projects around motivated
- individuals. Give them the environment and support they need, and trust them to get the job done.
- The most efficient and effective method of conveying information is face-to-face conversation.

- Working software is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

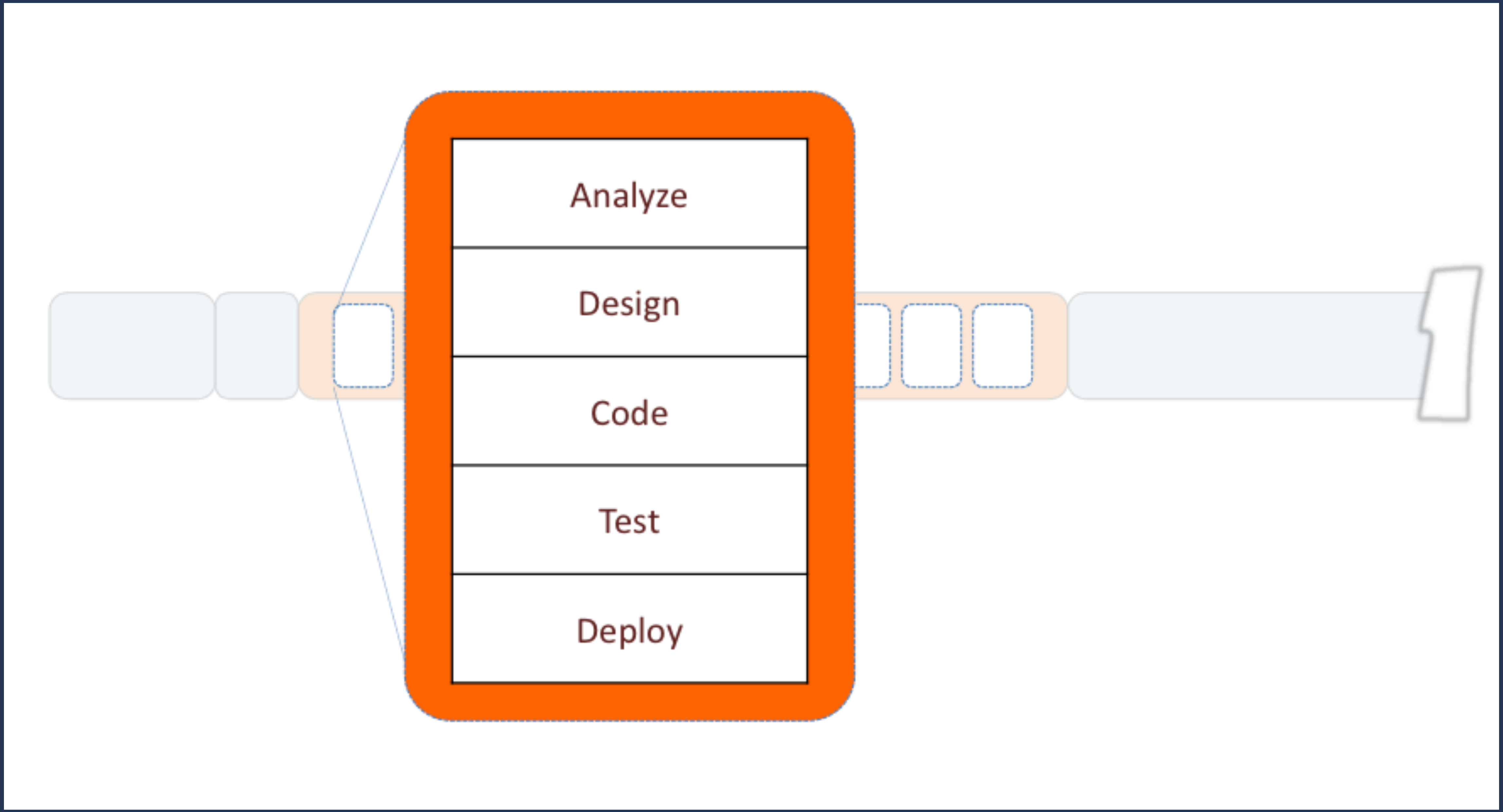
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity--the art of maximizing the amount of work not done--is essential.
- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.

Agile Project Lifecycle

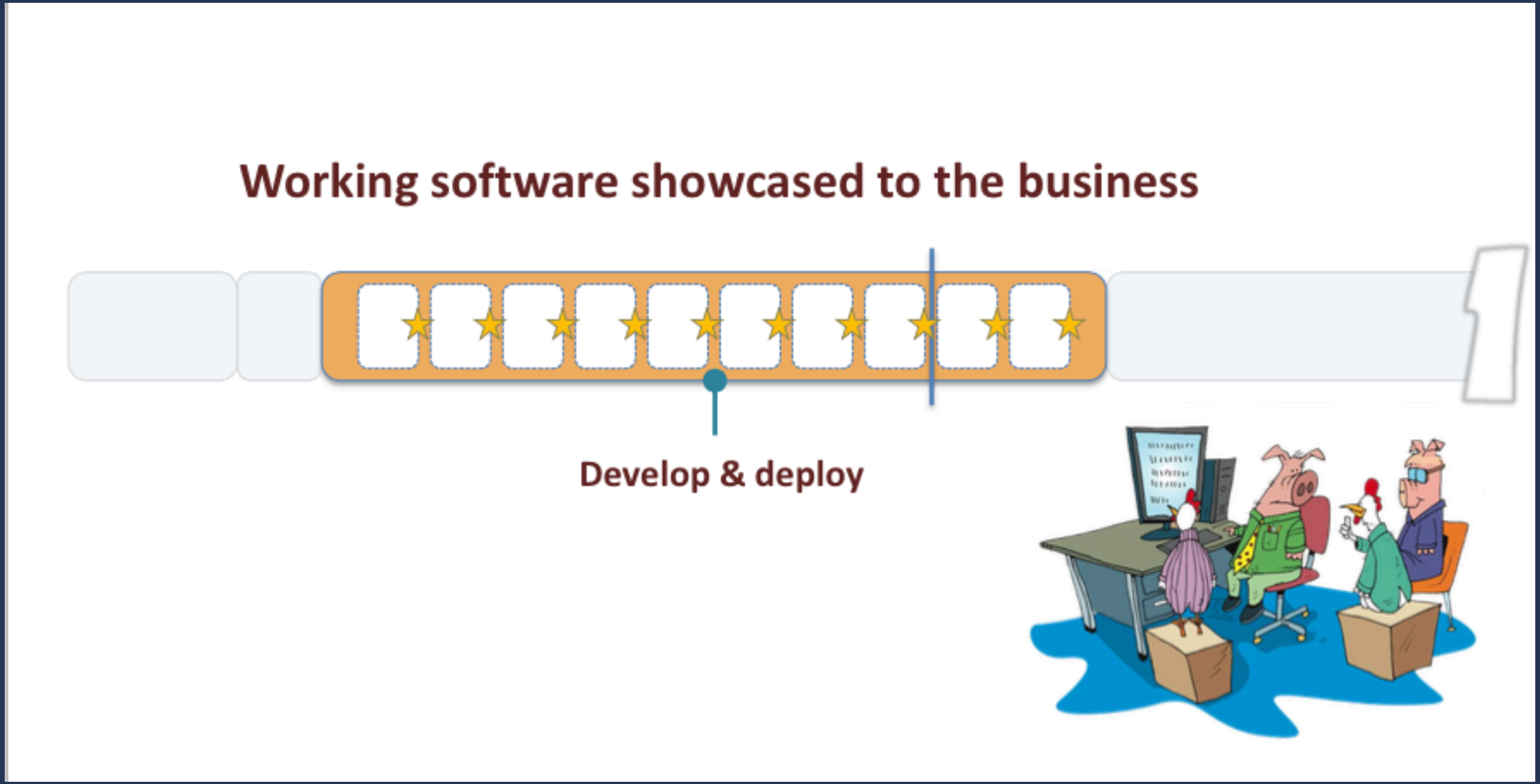
Timeboxed iterations



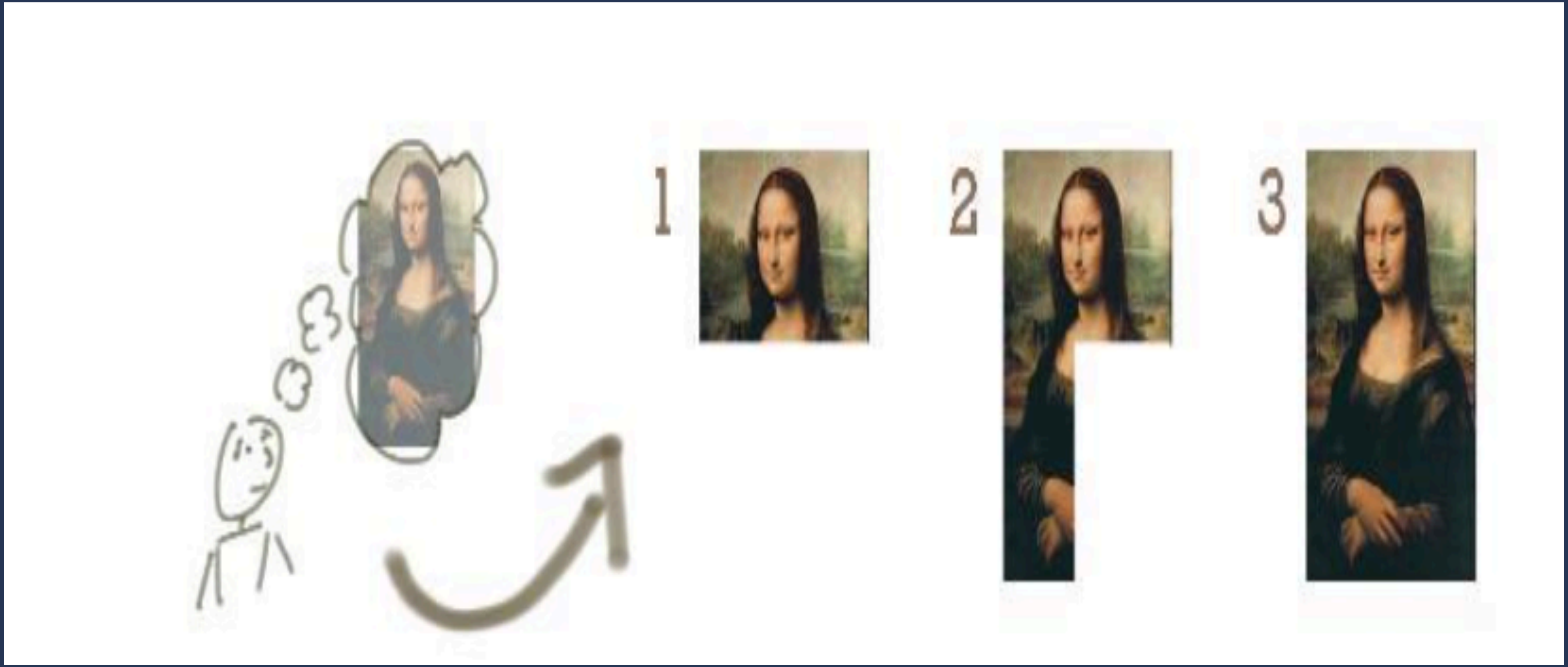
The Basics



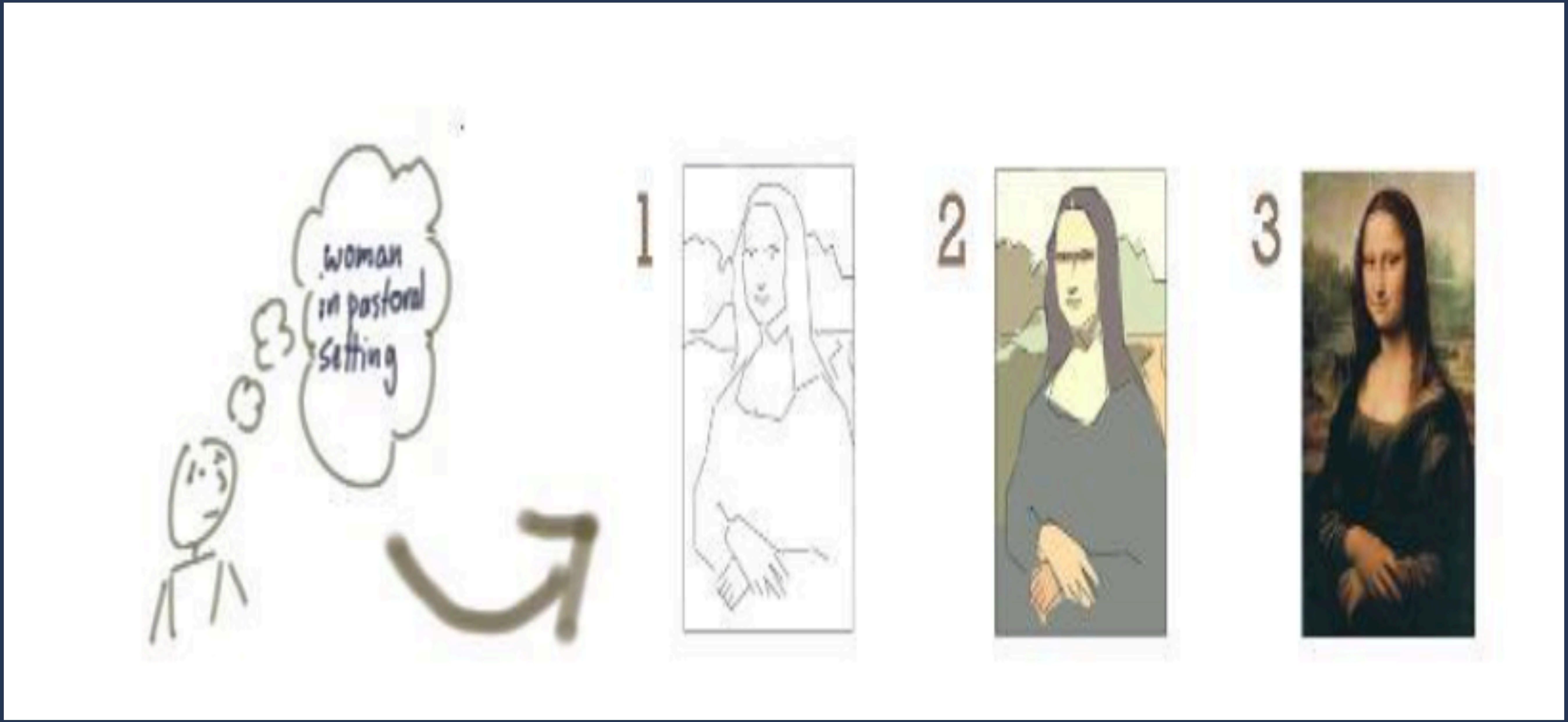
Lifecycle


Working software showcased to the business
Develop & deploy

Iterative



Incremental



Agile Myths

Agile Myths
* No Planning
* No Documentation
* Lacks Discipline
* Limited to Co-Located Teams
* Open Ended

Agile Roles

Product Owner

the one person responsible for a project's success. The Product Owner leads the development effort by conveying his or her vision to the team, outlining work in the scrum backlog, and prioritizing it based on business value.

Scrum Master

serves as a facilitator for both the Product Owner and the team. He or she has no management authority within the team and may never commit to work on behalf of the team.

Pigs (Team Members)

those responsible for committing work to the project