

Exam Preparation



SoftUni Team
Technical Trainers



SoftUni



Software University

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Have a Question?



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#Agile

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Exam Info

Exam and Evaluation Criteria

- Regular Exam: **18 November 2023**
- Retake Exam: **25 November 2023**



60

minutes

20

single-choice question



- Test – 60 minutes
 - English
 - Automated quiz system
- Practical and theoretical questions
- You can submit your answers just one time



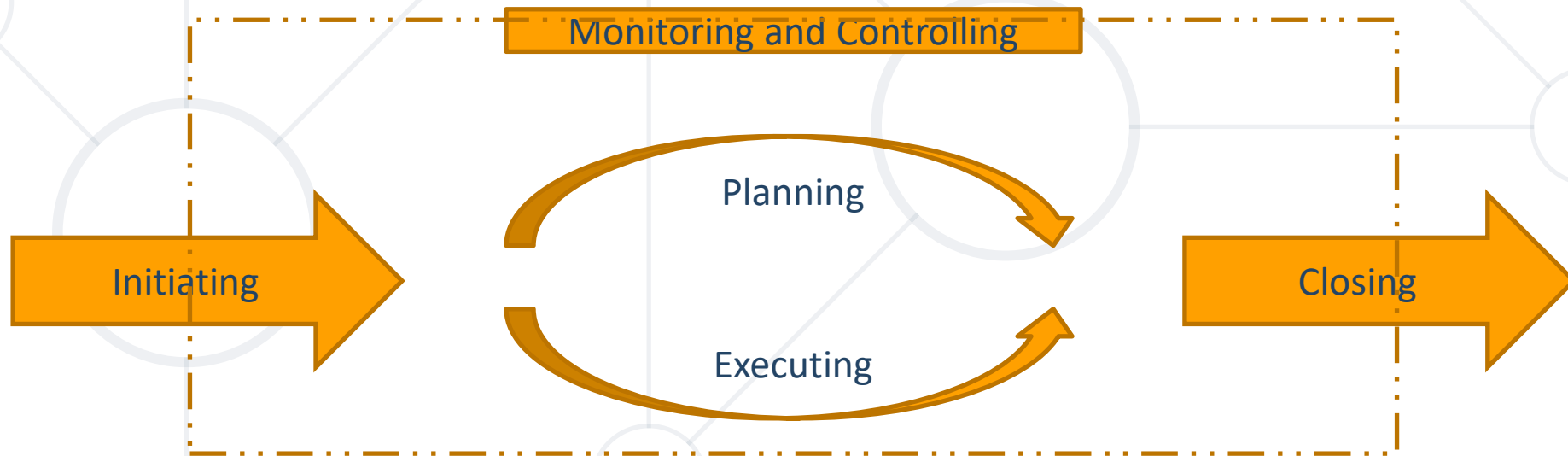
Exam Preparation

- Overview of the material
- Sample questions
- Q&A

- A project, by definition, has the following characteristics
 - It is temporary – with a beginning and an end
 - It creates/delivers a unique product, service or result

Classic approach

- Predefined project goal, known and elaborated scope and deliverables
- Plan-driven approaches require more information to be known up-front



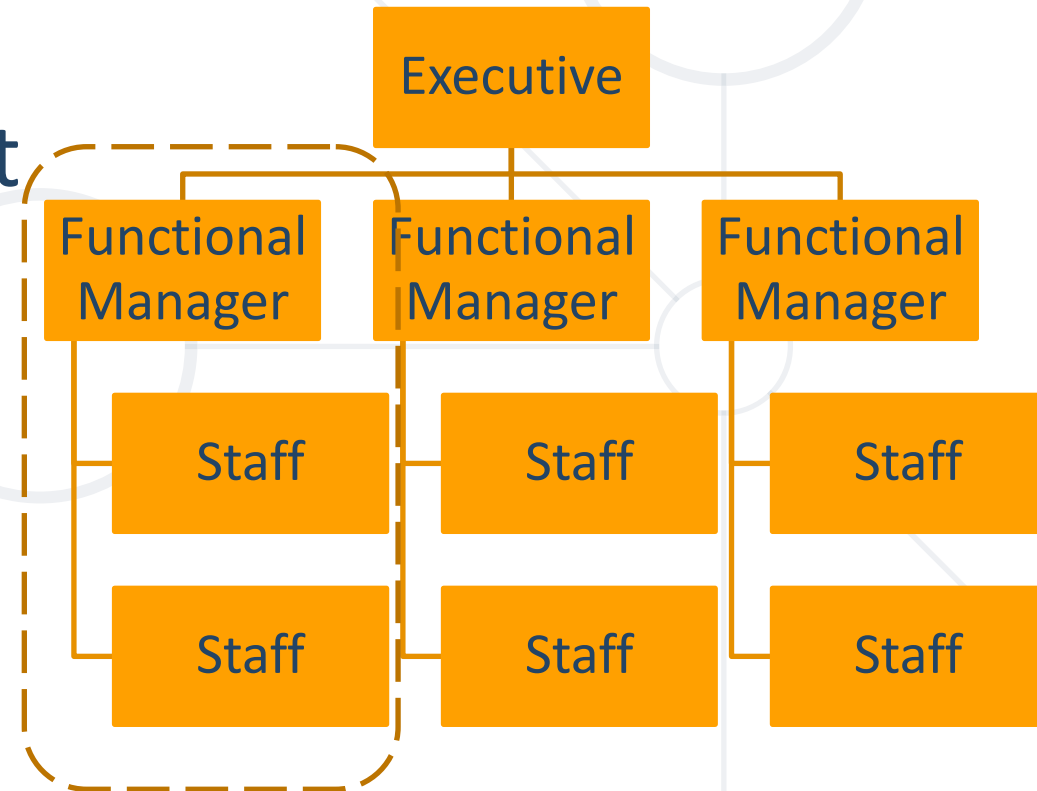
Organizational Structure Types

- Functional
- Projectized
- Matrix



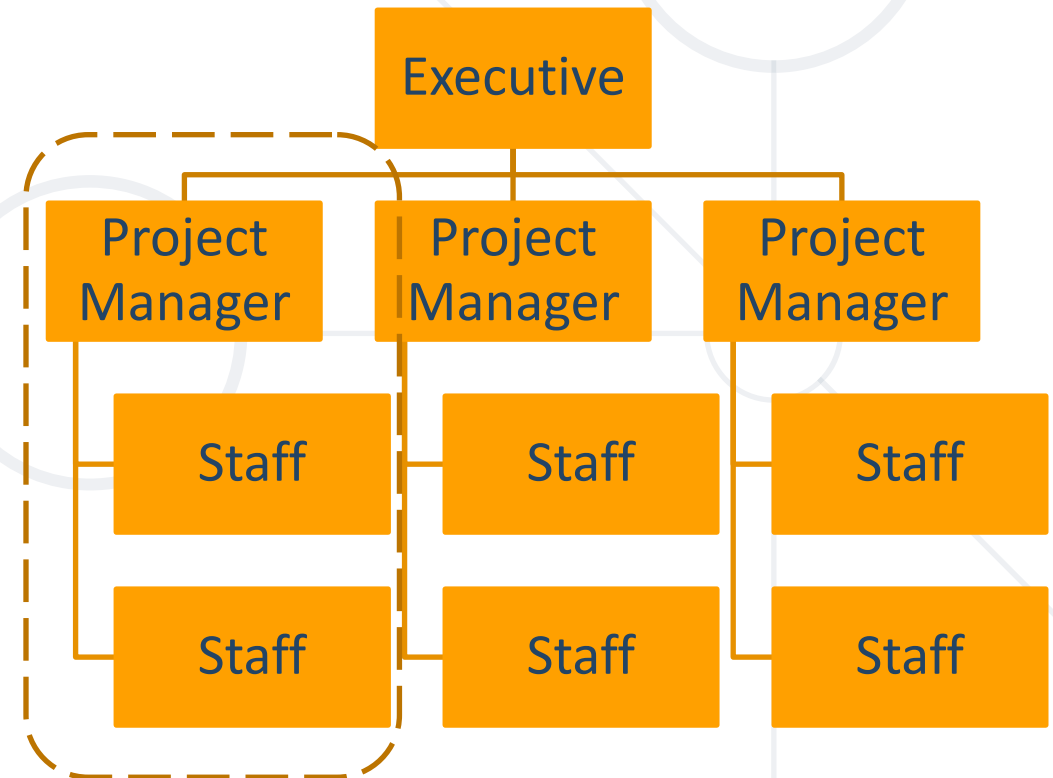
Functional Organization

- Employees are grouped by specialization
 - Accounting, marketing, etc.
- Governed by a Functional manager
- Projects within a single department
- Project work in addition to normal work



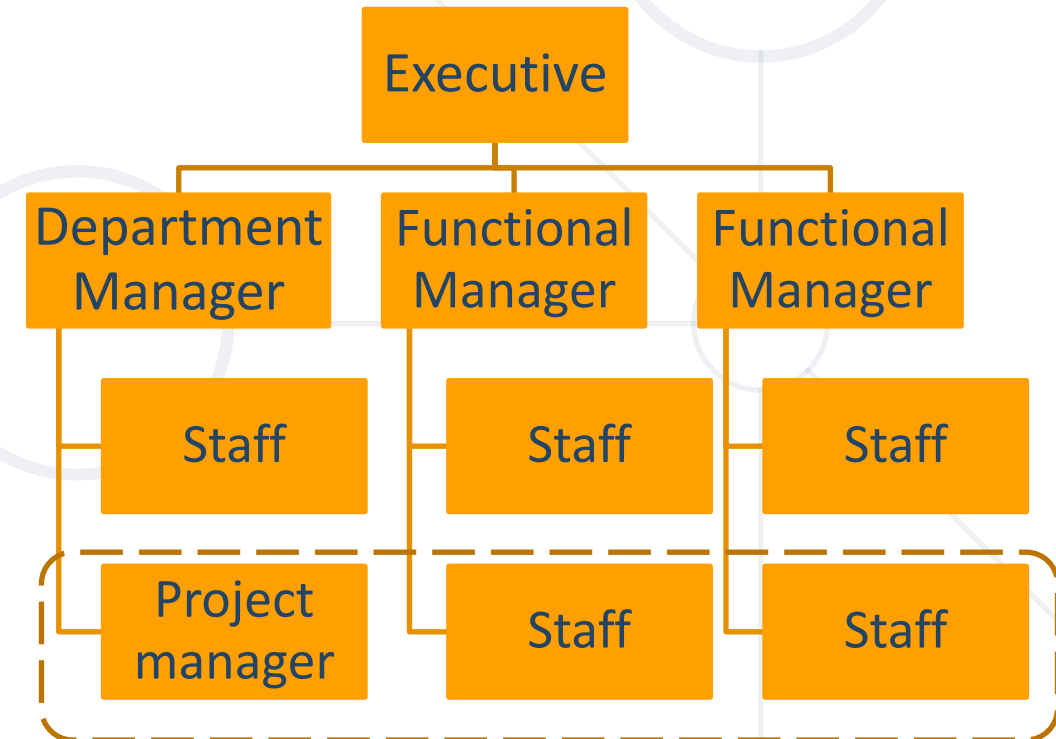
Projectized Organization

- The company is organized by projects
- The PM has full authority
- Employees report to the PM
- Only project work is done

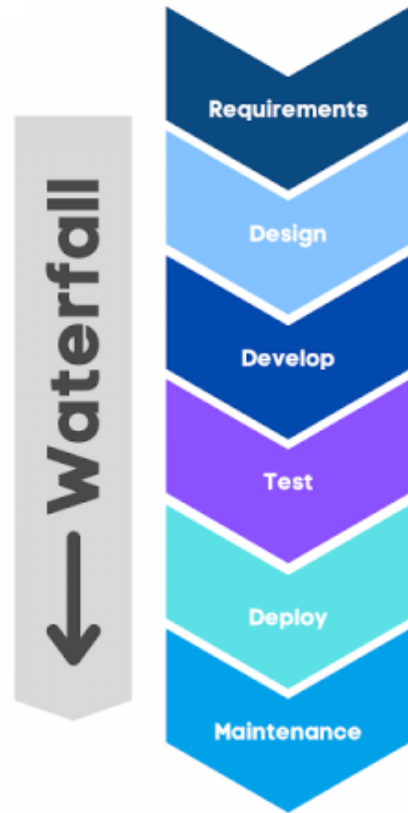


Matrix Organization

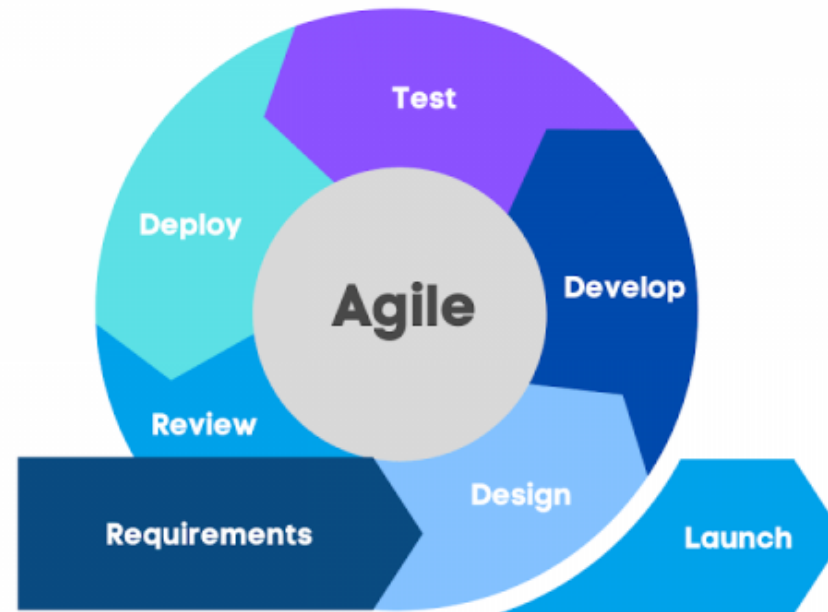
- A blend of functional and projectized
- High level of coordination is required
- Communication to both PM and Functional Manager



Waterfall vs Agile



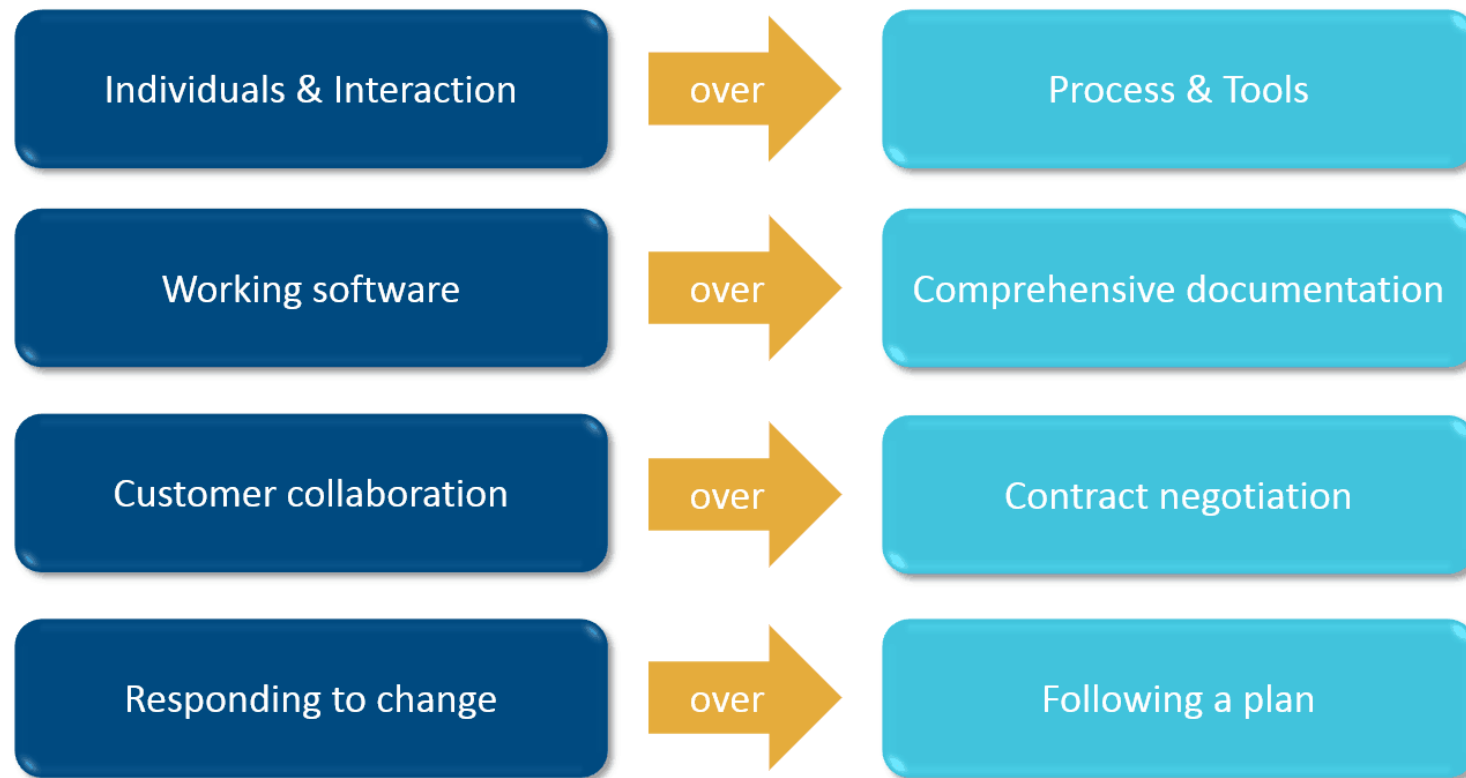
VS



Command-and-control

powerment

Agile Manifesto – The 4 Values



While **there is a value in the items on the right**, we value the items on the left more.

Agile Manifesto

12 AGILE PRINCIPLES

01 Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

02 Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

03 Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

04 Business people and developers must work together daily throughout the project.

05 Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

06 Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

07 Working software is the primary measure of progress.

08 The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

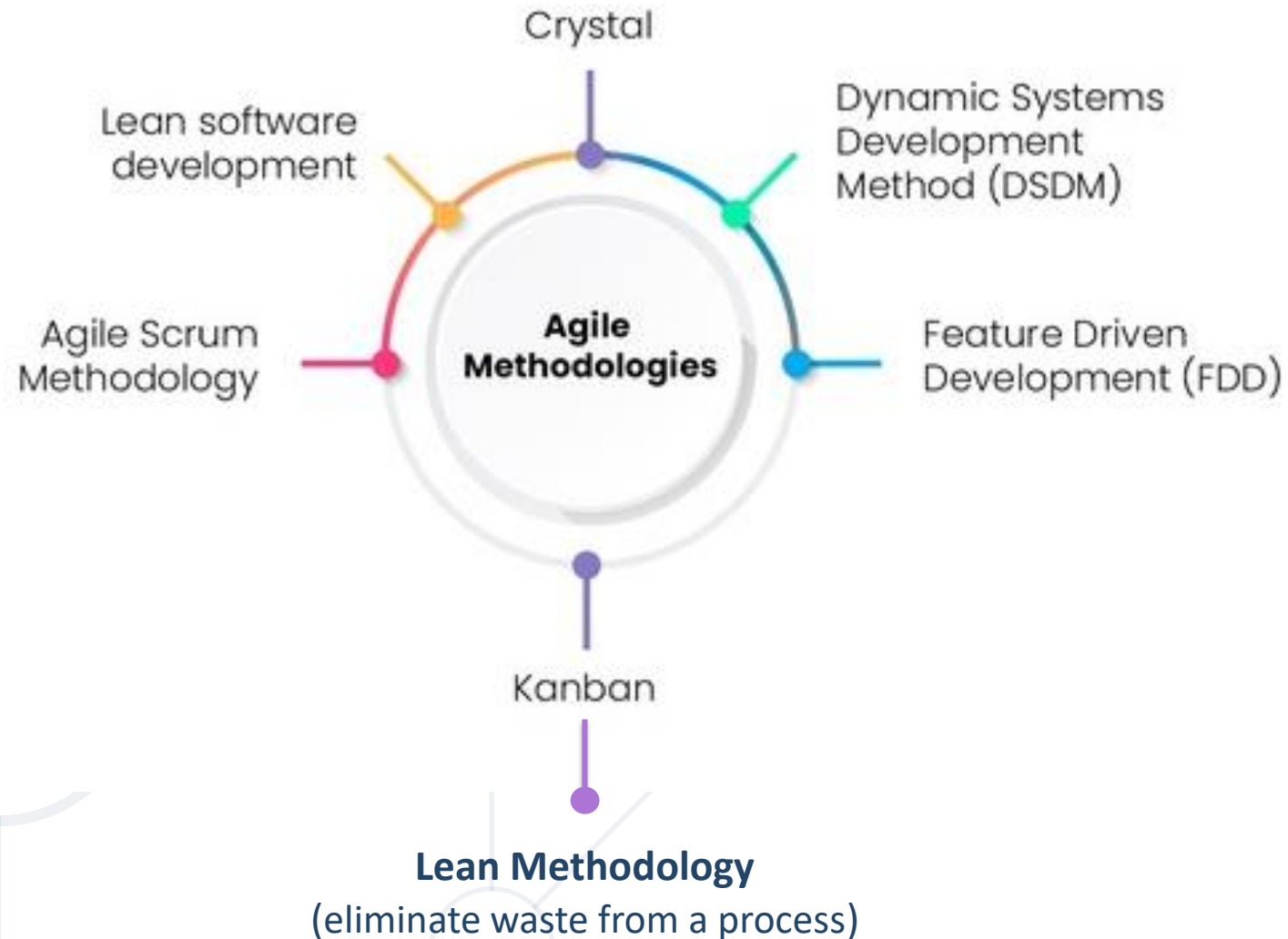
09 Continuous attention to technical excellence and good design enhances agility.

10 Simplicity – the art of maximizing the amount of work not done – is essential.

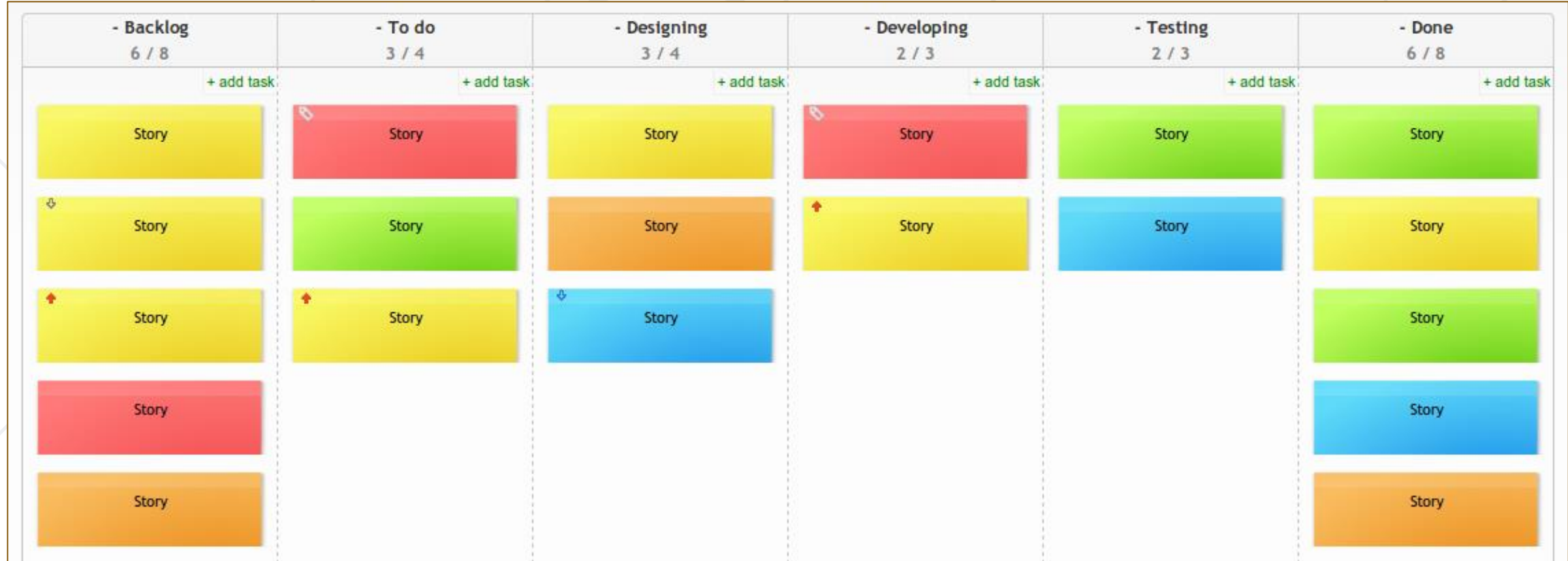
11 The best architectures, requirements, and designs emerge from self-organizing teams.

12 At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

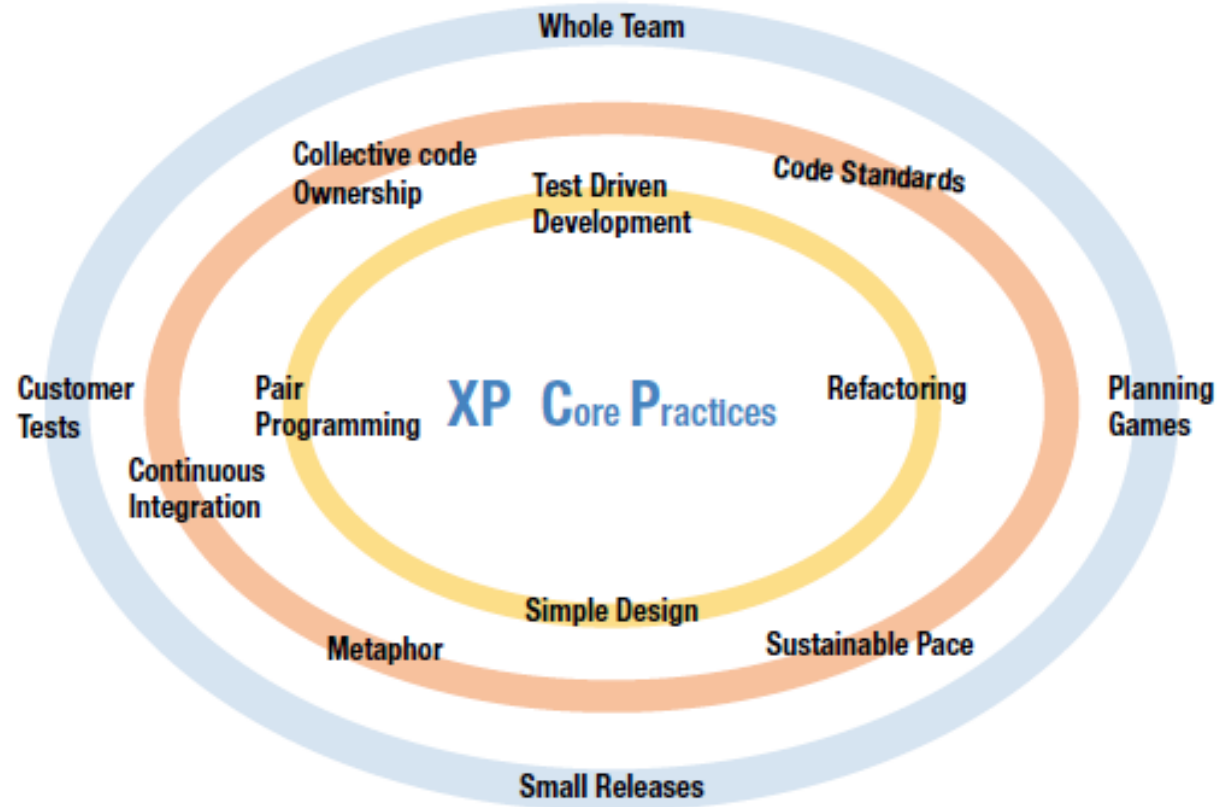




Kanban Board – Basics



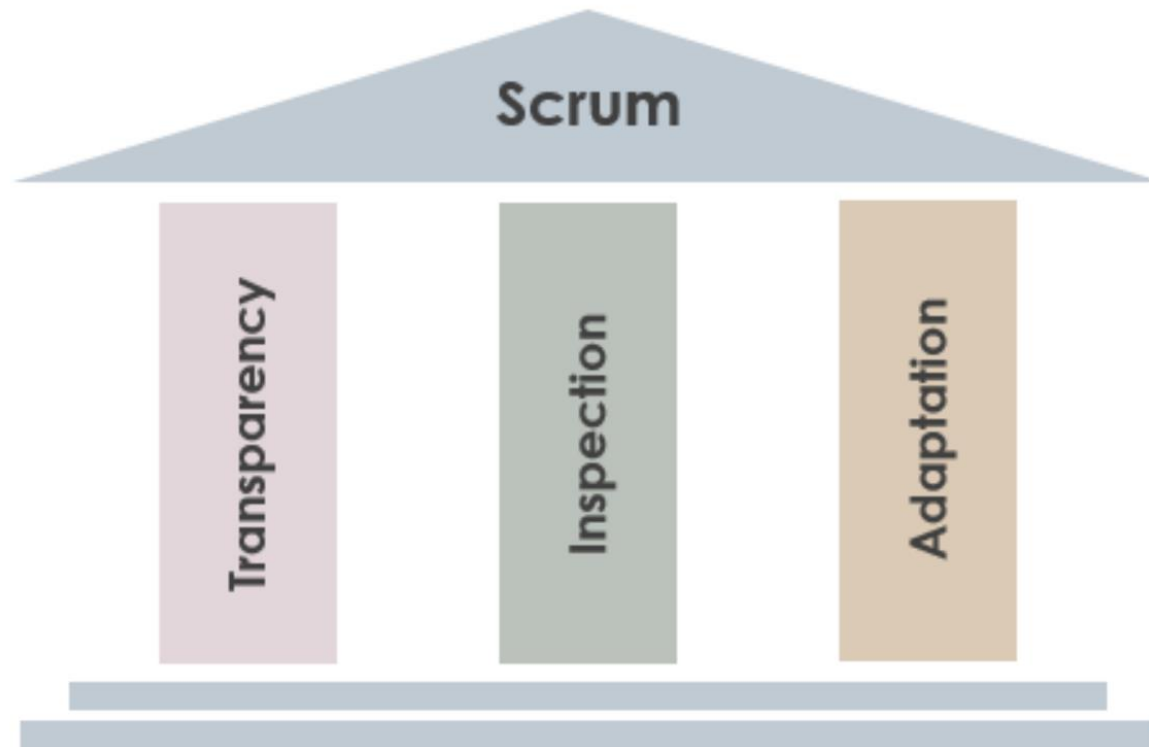
Extreme Programming



Coaching role, no SM

Ash is working on an XP project. When his manager stops by to check on the progress, she notices that the developers are working in groups of two, rather than individually. This approach is called what?

- P2P (Programmer – Programmer)
- Pared programming
- People-People Programming
- Pair Programming



Transparency

Giving visibility to the significant aspects of the process to those responsible for the outcome.

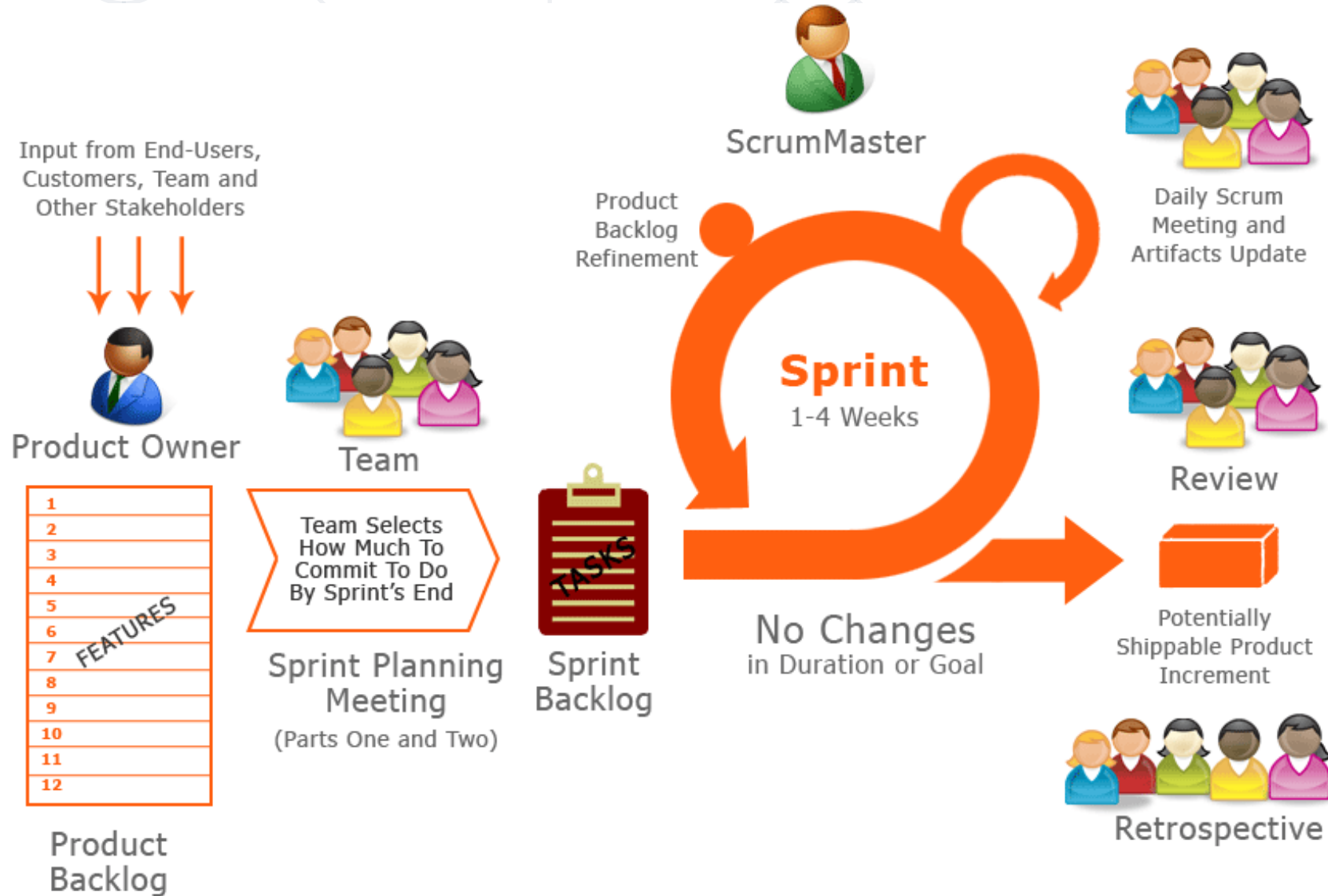
Inspection

Timely checks on the progress toward a sprint goal to detect undesirable variances.

Adaptation

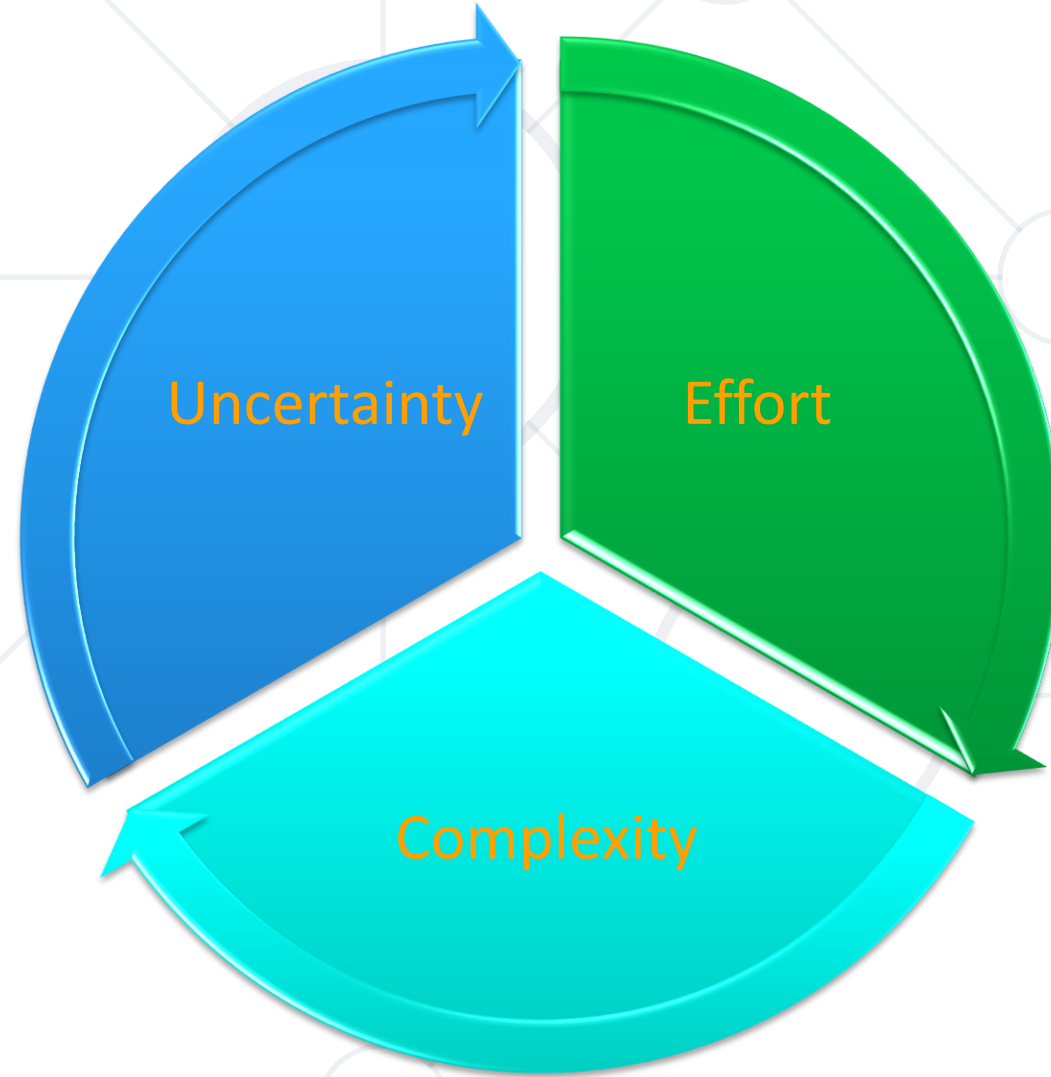
Adjusting a process as soon as possible to minimize any further deviation or issues.

SCRUM BASICS



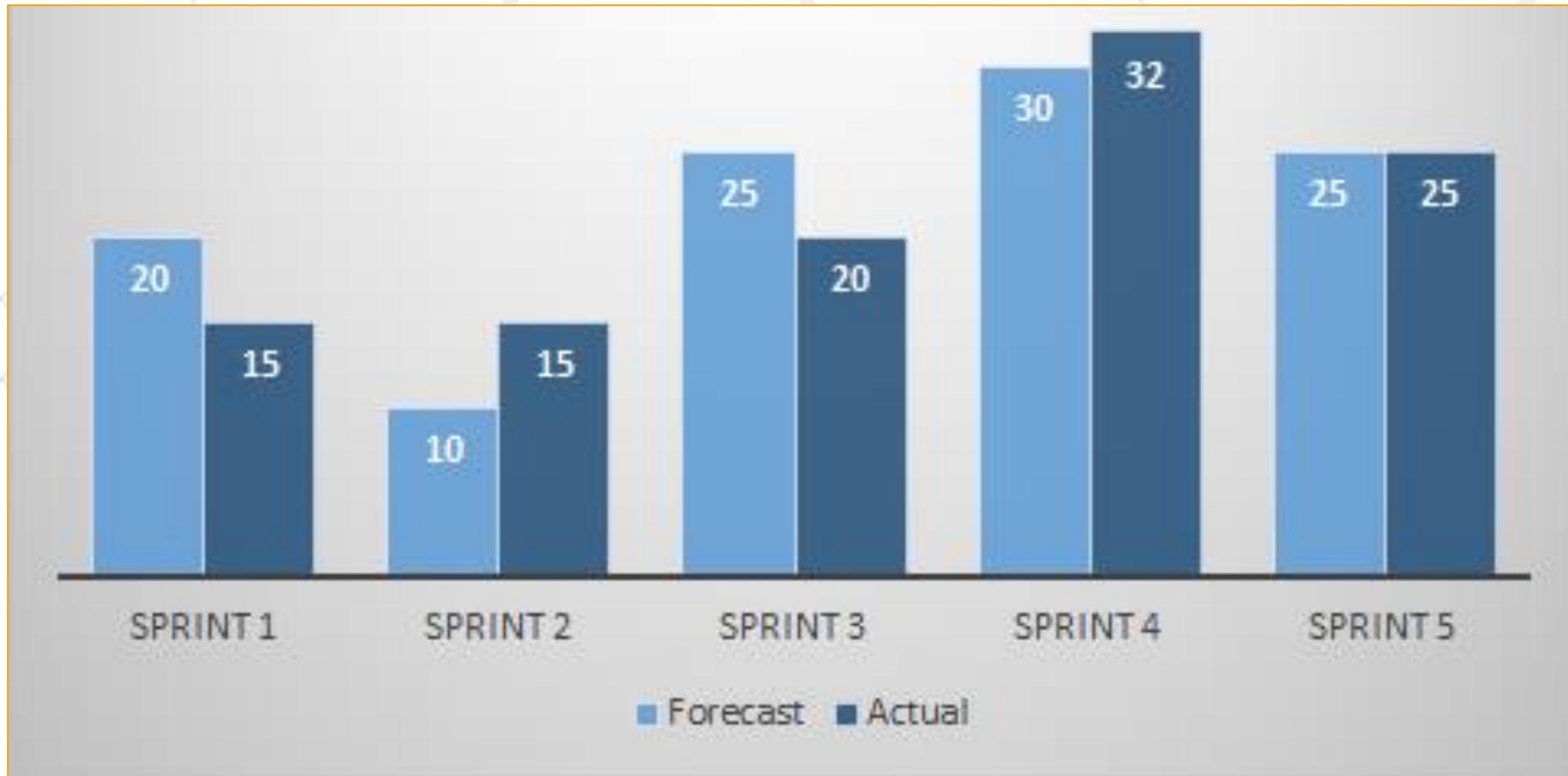
Raj is educating the project team and key stakeholders about Scrum. A few of the team members are confused about the activities that happen after the sprint review. Raj should indicate which of the following activities is to occur after the sprint review?

- Product backlog refinement
- Sprint planning meeting
- Daily Scrum
- Sprint retrospective

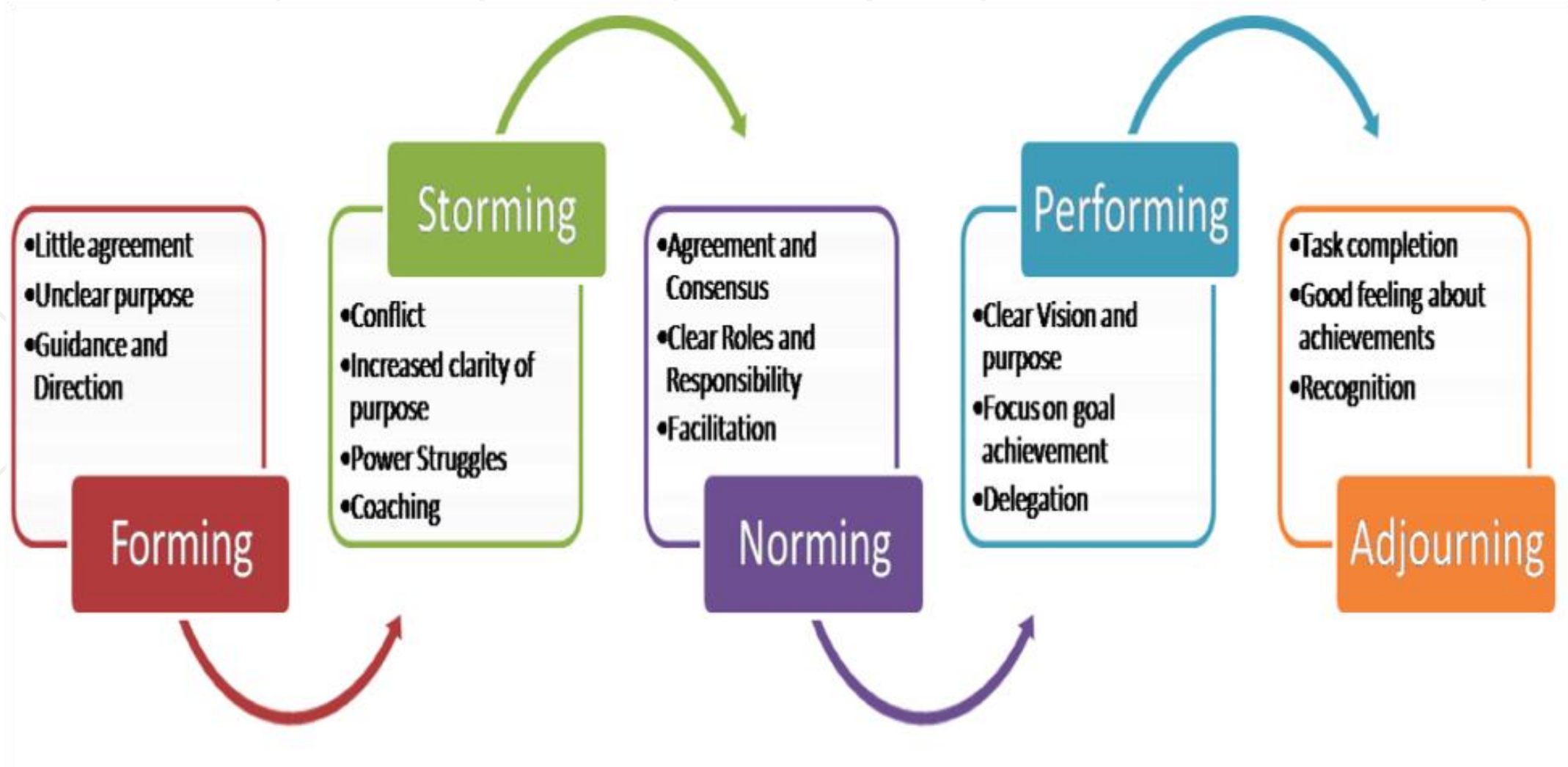


- What are "story points"?
 - In short, "story points" are the units of measure used in Scrum
 - Relative sizing/estimates
 - Story point estimates need to include all known activities required to complete the story, including testing and refactoring, complexity level, risk level, etc.
 - How is Poker Planning done? What's the process when there's no consensus reached?

- Team's capacity for an iteration – measured in story points



Tuckman's Model



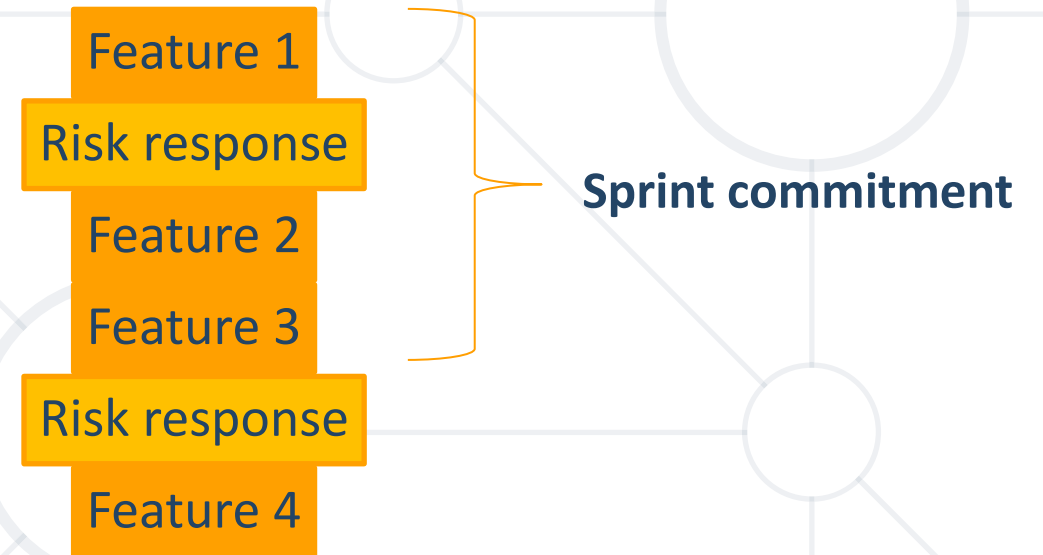
- The Definition of Done (DoD) is based on the agreed criteria that must be met for a team to consider an aspect of the product shippable or complete
- It established a shared understanding across the team what must be done for a user story to be considered finished

DONE

adjective

1. Unit tests passed
2. Code reviewed
3. Acceptance criteria met
4. Functional Tests passed
5. Non-Functional requirements met
6. Product Owner accepts the User Story

- Agile backlogs are prioritized not only for features but also for risk responses to identified risks
- When planning an iteration, the team balances the delivery of high-value features with the mitigation of the biggest project risks



Anderson's agile team is in the release planning phase for the next iteration. To determine how much work can be done in the next release, what is the most accurate tool to use?

- User stories
- Affinity estimating
- Story points
- Velocity

Key Agile Terms

- Generalizing specialists
- Servant Leadership
- Timeboxing
- Inspect and Adapt – set SMART goals
- Collocation – 33 feet
- Backlog prioritized by business value
- Empirical and value-based measurement
- Safe environment and constructive conflict

Clark has been identified as a stakeholder on an agile software development team. When he attends his first meeting, Clark is surprised that there are only ten people on the team; since it's a large implementation, he thought the team would be much more significant. Why is the team so small?

- One person was selected from each department
- Agile methods call for very specialized roles
- The agile methodology is so new; no one wanted to be on the team
- The agile method recommends the delivery team to have 12 or fewer members

Bonnie is working in an agile team who has identified the highest-value features of the project and wants to deliver them immediately. Why is this a good idea?

- Delivering the most intense tasks could shorten the project duration
- It proves the team's understanding of value
- The longer the project goes on, the value of a feature may be compromised
- It gets the features out of the way

In his role as a leader, Ash uses several agile tools to find potential problems before they happen. Of the following, which is one of those tools?

- Daily standup meetings
- Affinity estimating
- Iteration planning
- User story

During a sprint planning meeting, what is one item that should be accomplished?

- Each participant answers three questions: What have I accomplished? What do I plan to accomplish? Are there any roadblocks?
- The product owner shared the updated backlog and the team discusses it to make sure everyone understands it before committing to what they can deliver in the next iteration
- The product owner decides if the product is done
- The project scope and costs are renegotiated

In an agile environment, which process sets the stage, gathers data, generates insight, decides what to do, and closes?

- Retrospectives
- Feedback
- Pre-mortems
- Value stream mapping

An agile leader must ensure there is a safe and open environment for their team. Why is this important?

- So there's no team turnover
- To protect the budget
- So the entire team becomes friends
- So the team feels free to admit to problems and failures and asks for help

Beatrice is a leader in an agile project. Maximizing value is an agile team's focus. What is the first question that should be asked when the team needs to make a decision?

- Will the decision that is made derail the project?
- How long will it take to test?
- What is the cost in man hours?
- What is the value to the customer?

Who should take responsibility for the process of story point sizing?

- The agile team leader
- The business partner
- The agile team
- The PMO

Because of your work on several agile teams, you've become very familiar with user stories. You've been asked to describe to the new people on your team what a "user story" actually is. In just a few words, how do you explain a user story?

- A user story is a small chunk of functionality that can be delivered in one sprint
- A user story is a narrative of requirements
- A user story is the background of the user community
- A user story is how the user community plans to use the product

Crystal is working with an agile team that is developing and delivering a software solution to her company's HR group. Throughout the project, many MVP (minimum viable product) releases are scheduled. Why is this a good idea?

- To enable the business to begin to get value from the project before the project ending
- To shorten the duration of the project
- To show the progress being made by the development team
- To enable the users to test the product for the development team

As a new team member working on a Scrum project, Anju is confused about the difference between a sprint review and a sprint retrospective. What is the difference?

- Sprint reviews discuss what has worked in the sprint. Sprint retrospectives are done at the end of the project for a lessons learned opportunity.
- Sprint reviews demonstrate the completed work in the sprint. Sprint retrospectives demonstrate the compiled work completed in the project.
- Sprint reviews are for lessons learned. Sprint retrospectives are for product demonstrations.
- Sprint reviews are for product demonstrations. Sprint retrospectives are for lessons learned.

Ava and her team are working on a project that has begun following the agile model of the triangle of constraints. Of the following, which is the approach that Ava follows?

- The project cycles have a fixed time and fixed scope, but the cost of the finished work within each cycle could vary
- Each cycle of the project has a fixed scope, but the timing of the cycles and cost of the completed work within each cycle may vary
- Each cycle of the project has a fixed cost and fixed scope, but each cycle's timing may vary
- Each project cycle has a fixed time and fixed cost, but the scope of the finished work within each cycle could vary

Both agile concepts, what is the best example of barely sufficient and just in time documentation?

- Finished just before the deadline in the planning phase, documentation completed in an outline form
- Finished only just before it's needed and not before, as minimal documentation as possible to cover basic needs
- Finished two days before the developer begins, documentation that is less than four paragraphs per each user story
- Produced during the daily scrum each morning, documentation that includes just titles for all user stories, unless the developer requests more

By adjusting requirements as needed, regardless of when they occur, Ajay and his team ensure that Marca Corporation can compete best in their industry by regularly requesting changes. Of the following, which principle is the team primarily exhibiting?

- Even late in development, change requirements are welcomed
- Frequently delivering working software
- Regular team reflection on how to become more effective and then adjusting accordingly
- Though early and continuous software delivery, the team ensures the customer that their satisfaction is the team's highest priority

When should an exceptional agile leader discuss the vision of the project?

- During the first release planning session
- During the first sprint planning session
- The project's vision should be discussed throughout the project
- During each sprint planning and sprint retrospective sessions

Of the following, which best displays practices of agile mindset?

- Keeping an accurate project plan that is updated daily for reporting
- An individual readily admitting to a mistake they made in the project
- Before giving the team's estimates to management, adding 50% buffer
- Taking ten minutes before the daily stand-up meeting to openly discuss all future project events

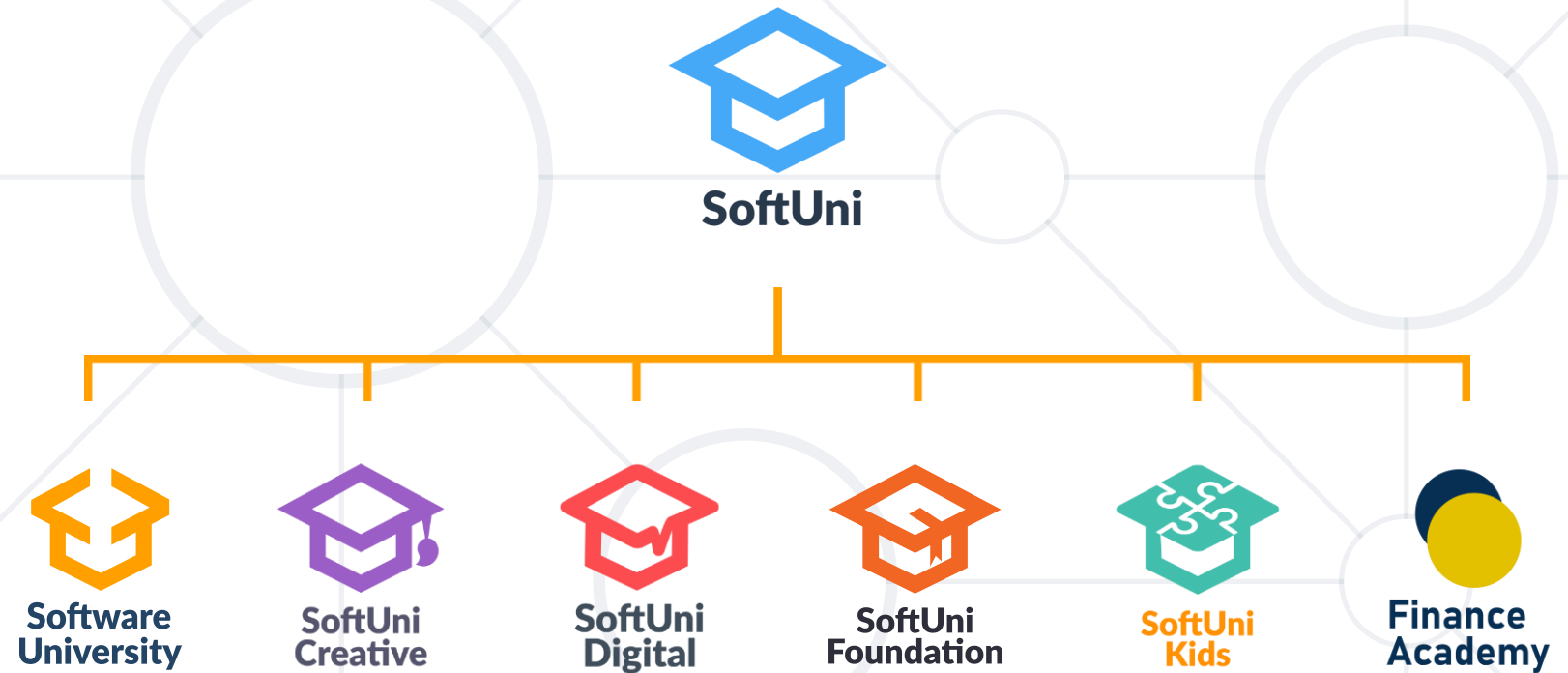
The Product Backlog is ordered by:

- Items are randomly arranged
- Size, where small items are at the top and large items are at the bottom
- Risk, where safer items are at the top and riskier items are at the bottom
- Business value, where the Product Owner decides on the priority

- Think about the practices and their purpose
- Don't answer questions based solely on your experience – answer in accordance with best practices



Questions?



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