

Agile Project Management

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PMG 622
Master of Project Management

Lecture 2



Understanding Agile Approaches: General Practices and Terminology

Lecture 2

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Agile Project Management

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Learning Objectives

1. Understand agile practices and processes
2. Learn agile terminology

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Key Points from Previous Lecture

Agile project management started slowly since 1970s but gained momentum from 2001 onwards after publishing “The Agile Manifesto”

The Agile Manifesto has 4 values and 12 principles that focus on flexibility, faster delivery, and customer collaboration

There are many frameworks and methodologies following Agile Values and Principles (ex. Scrum, Kanban, XP)

Uncertainty in projects comes from lack of requirements clarity and/or solution clarity

We select the suitable approach to manage the project based on degree of change and frequency of delivery

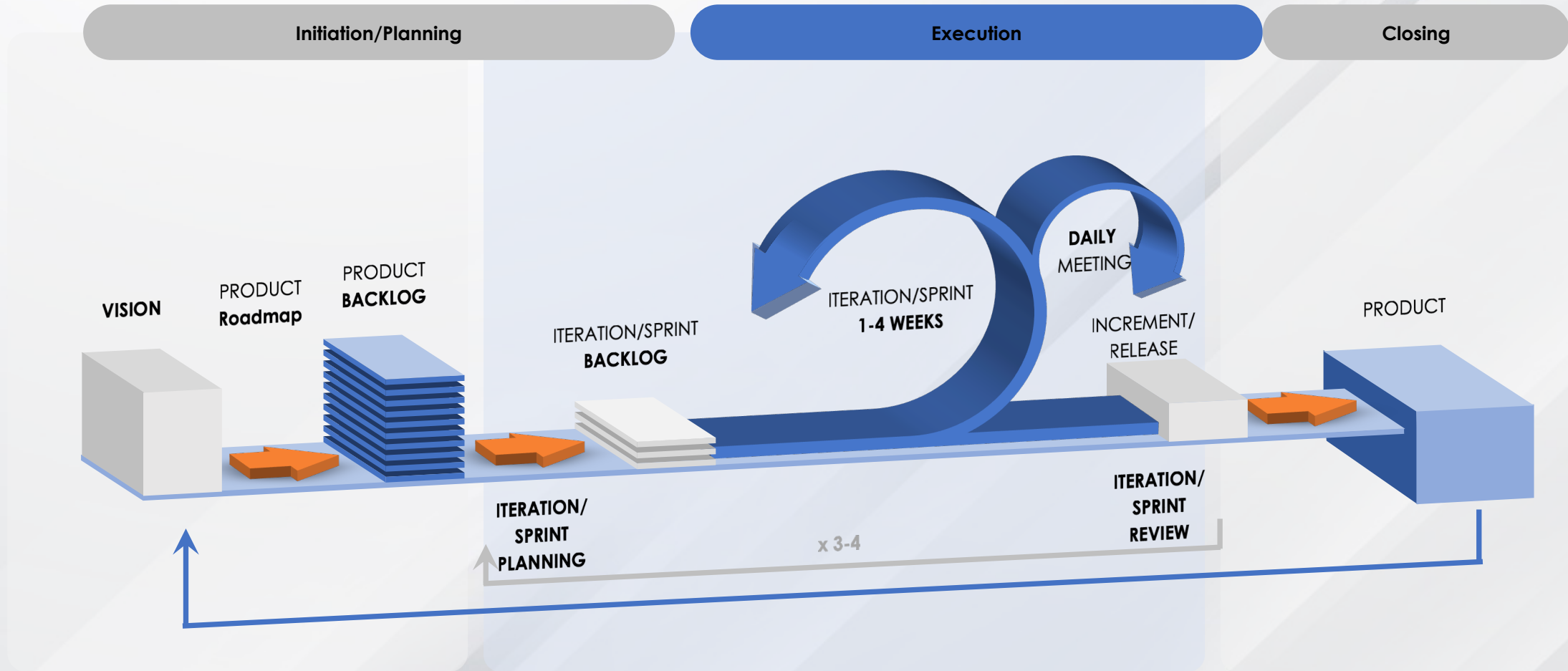
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Agile Practices and Processes



Agile Practices and Processes

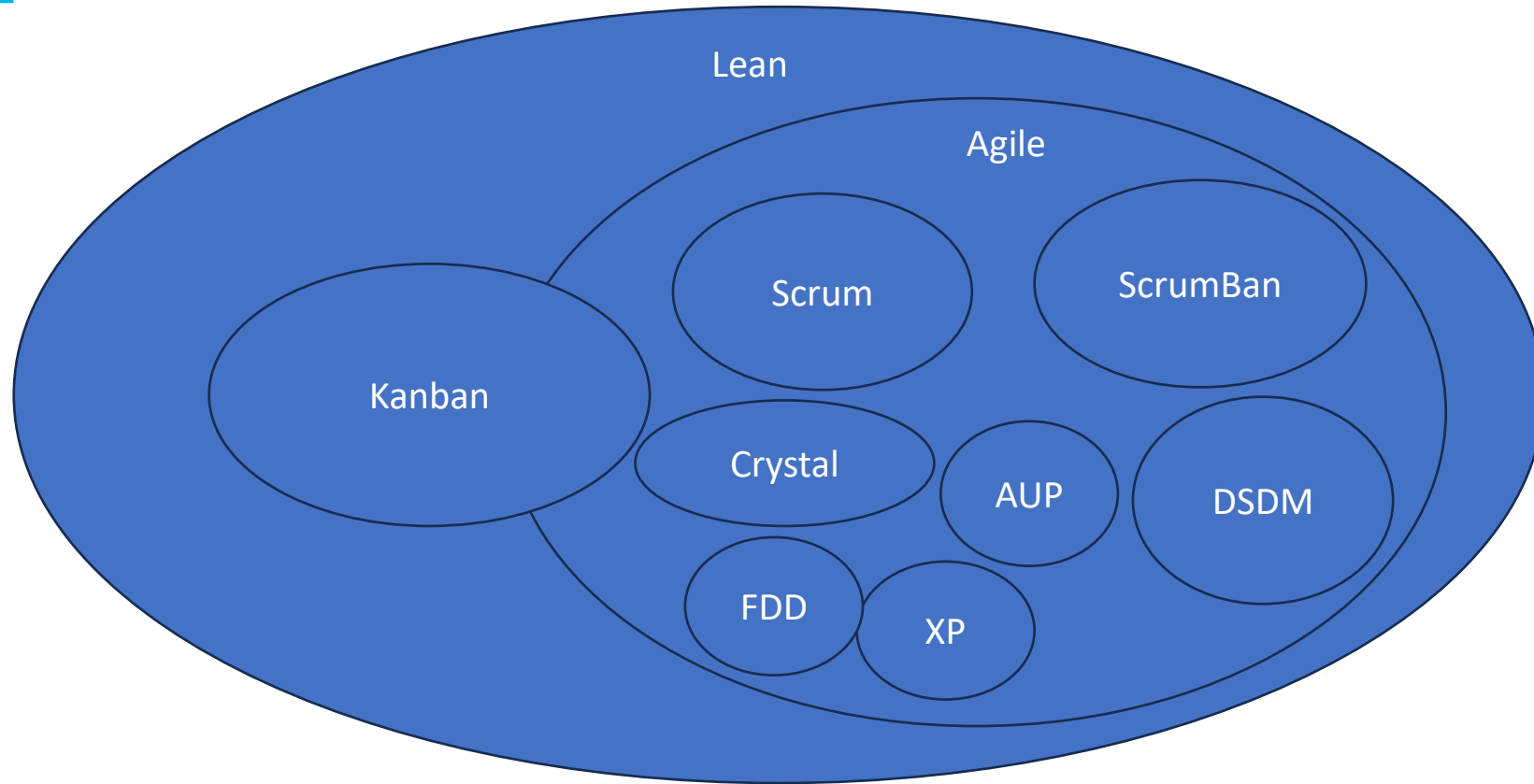


What happens in a typical Agile Project?

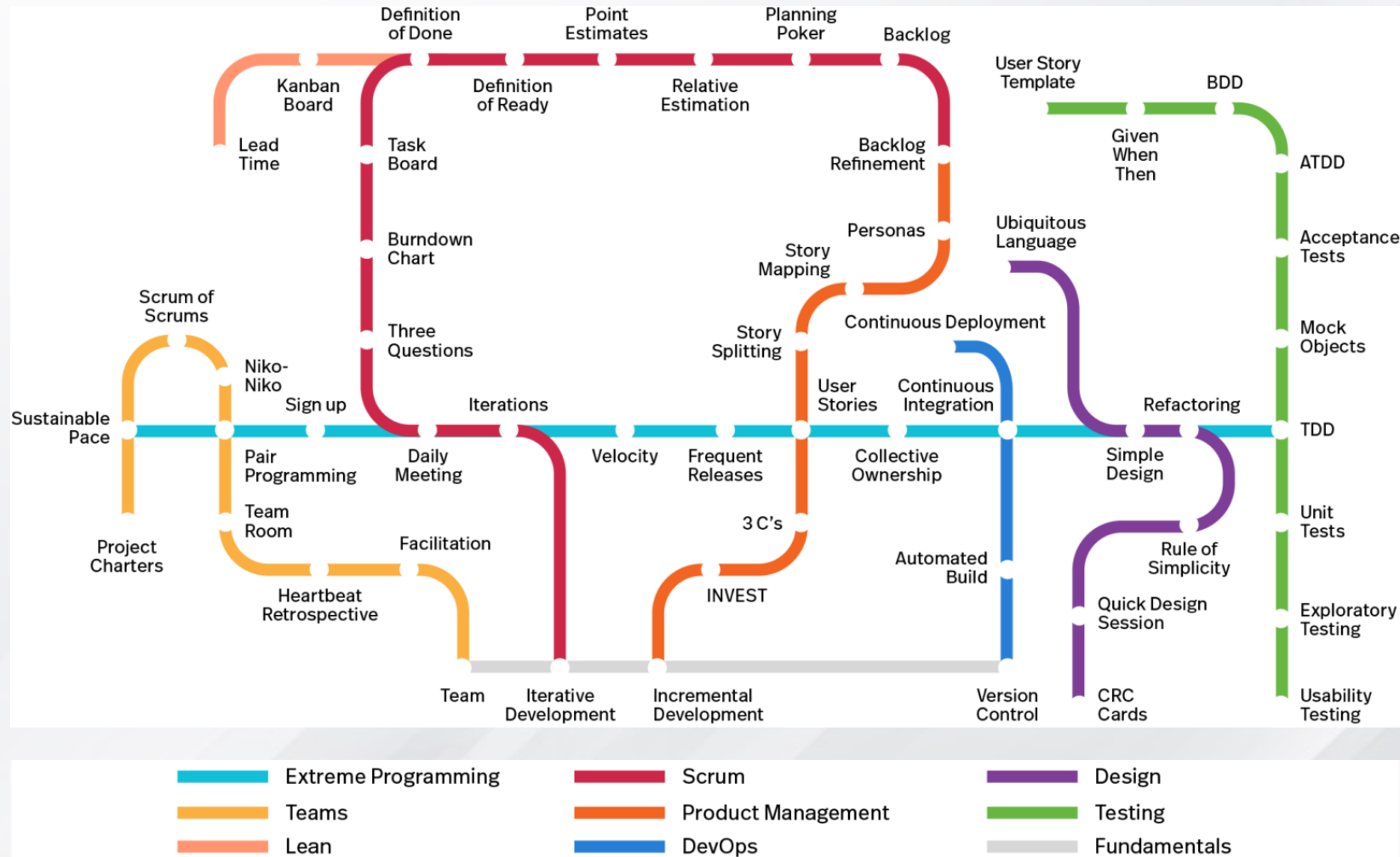


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All Agile frameworks share main practices/processes with some differences in process and terminology used



The Agile Subway Roadmap



Retrieved from <https://www.agilealliance.org/agile101/subway-map-to-agile-practices/>

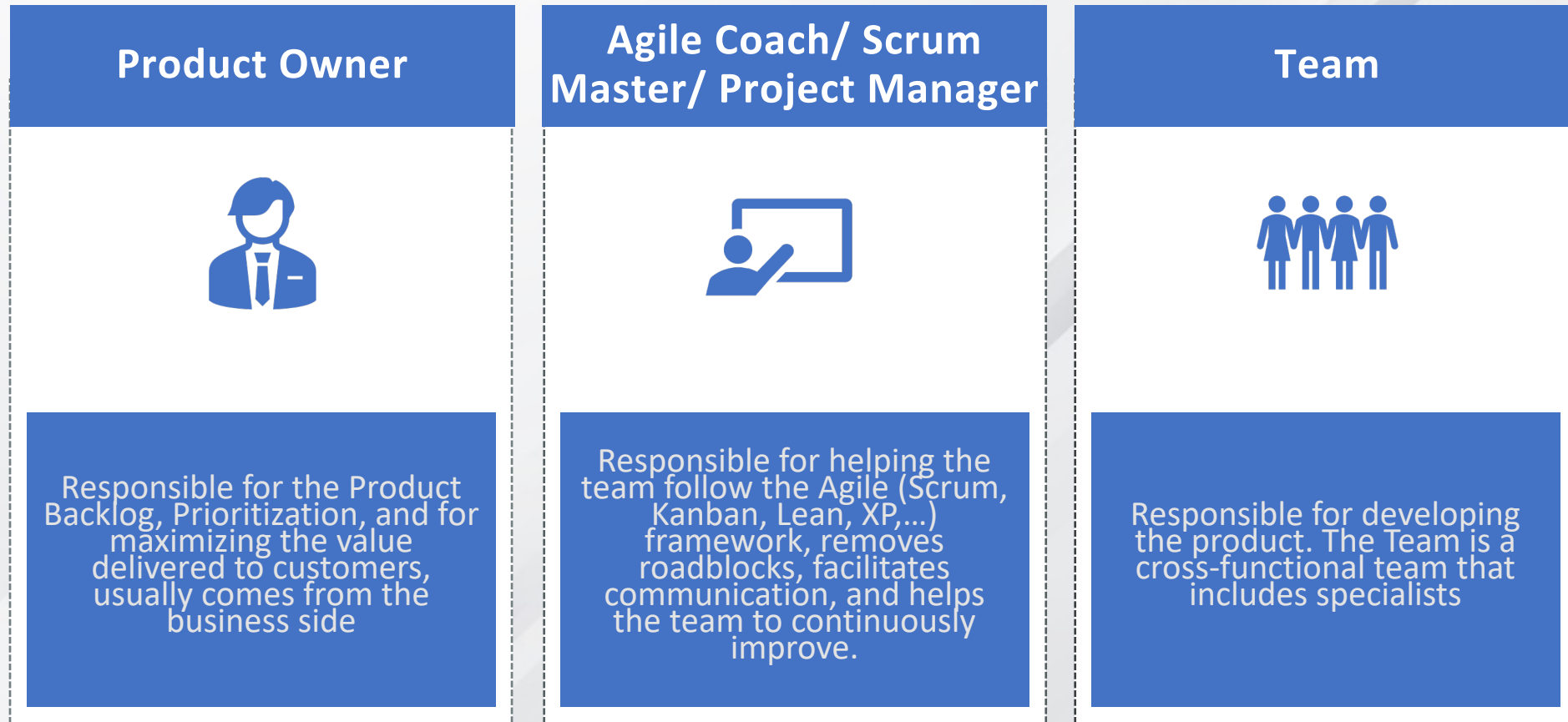
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Agile Terminology



Main Roles in an Agile Team



Agile Teams are usually between 5-9 people

Easier Communication

Faster Decision-Making

Higher Accountability



An Agile Team should be small enough to be fed by two large pizzas 😊



Colocation “Team Room”

Ideally the whole team, including the product owner or domain expert, has the use of a dedicated space for the duration of the project, set apart from other groups’ activities.



This space is furnished with the various amenities that the team may need: workstations, whiteboards and flipcharts, wall space to display task boards, project plans or other charts, and so on.

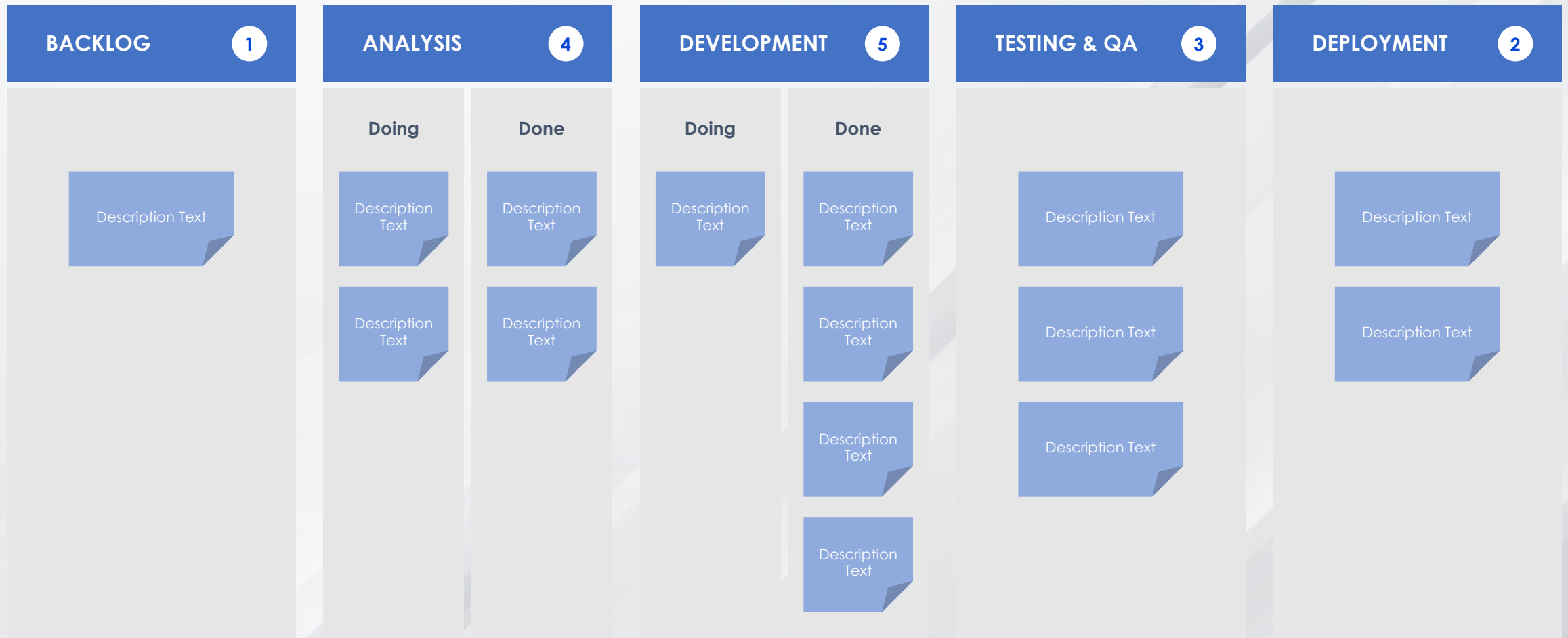


“Scrum” Framework

Name inspired by the Rugby Scrum where the team works closely together to move the ball forward (achieve a common goal or move the project forward)

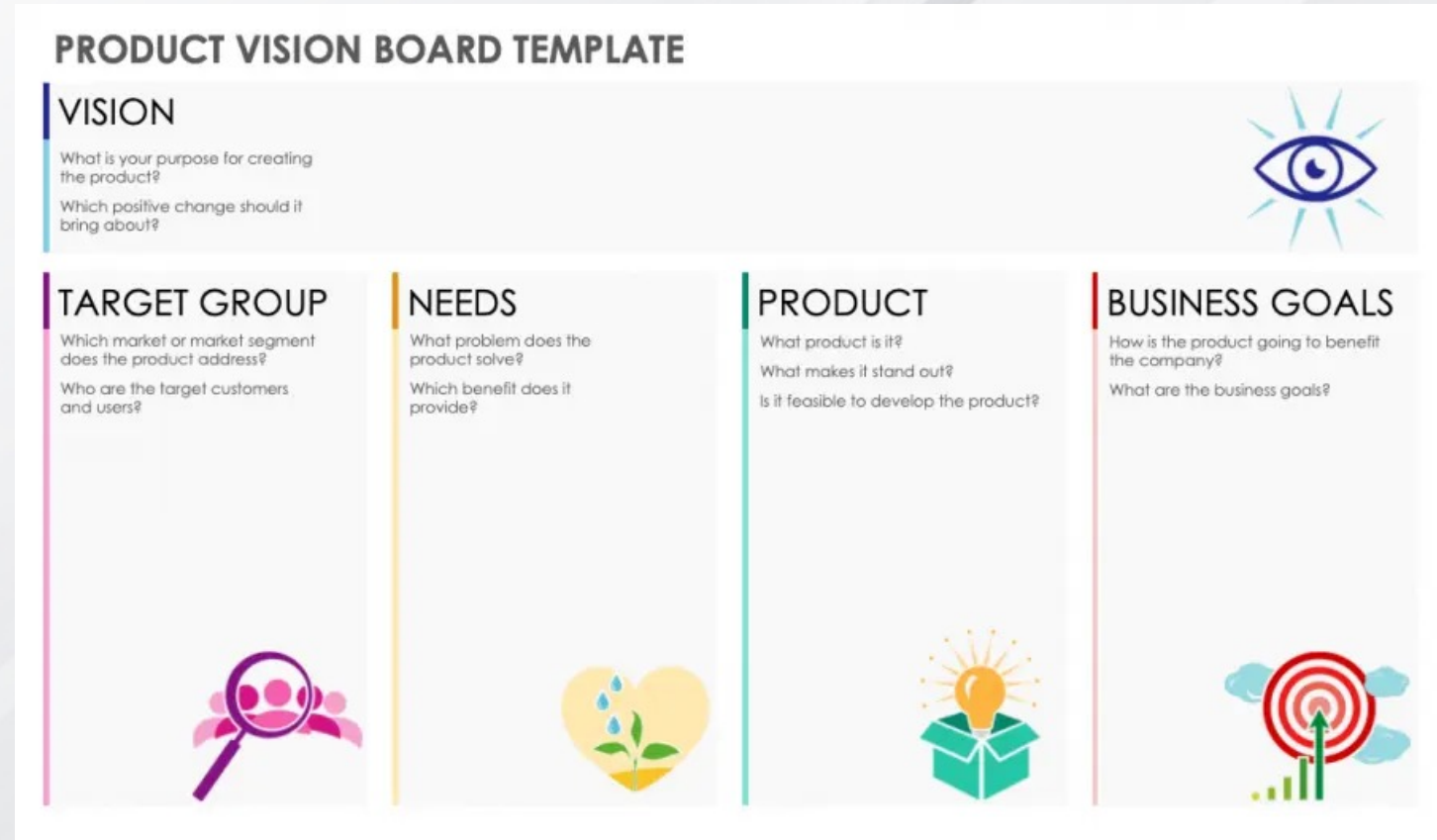
Kanban Board

- “A visual board that shows the current state of work items.”



Product Vision

- Describes the purpose of a Product, the intention with which the Product is being created, what problems it tries to resolve, and what it aims to achieve for customers
- The first thing to be done in the project (at initiating) and has the same purpose as Business Case in traditional project management.



Features and Value

- **Feature:** A new or improved functionality that is delivered to customers
- **Value:** Anything that delivers a benefit to the customer



Improved
Quality



Increased
Revenue



Decreased
Risk



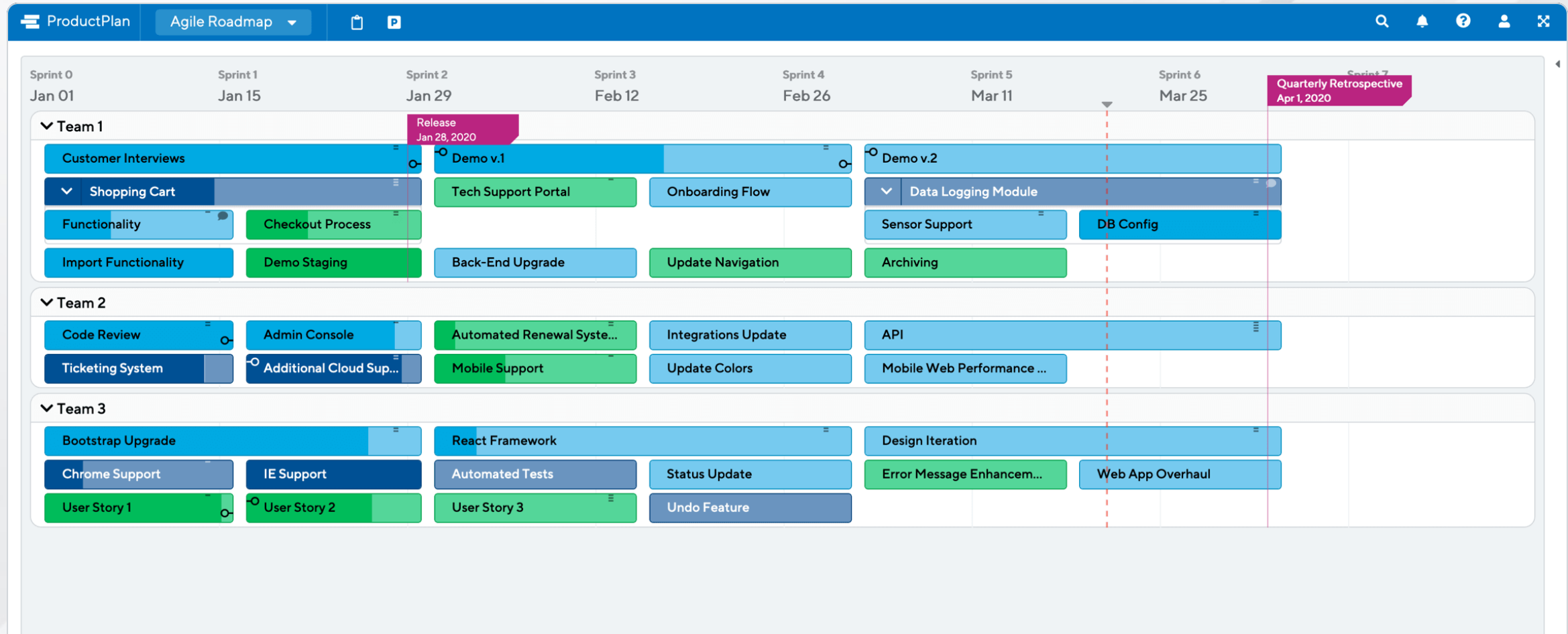
Increased
Satisfaction

Product Roadmap

- “A visual depiction of the product releases and the main components that will be included in each release.”
- Serves as a communication tool that provides project stakeholders with a quick view of the primary release points and intended functionality that will be delivered.

Feature Name	Release #	Q1	Q2	Q3
Feature 1	Release 1	Iteration/Sprint 1	Iteration/Sprint 2	
	Release 2			Iteration/Sprint 3

Product Roadmap Example



Product Backlog

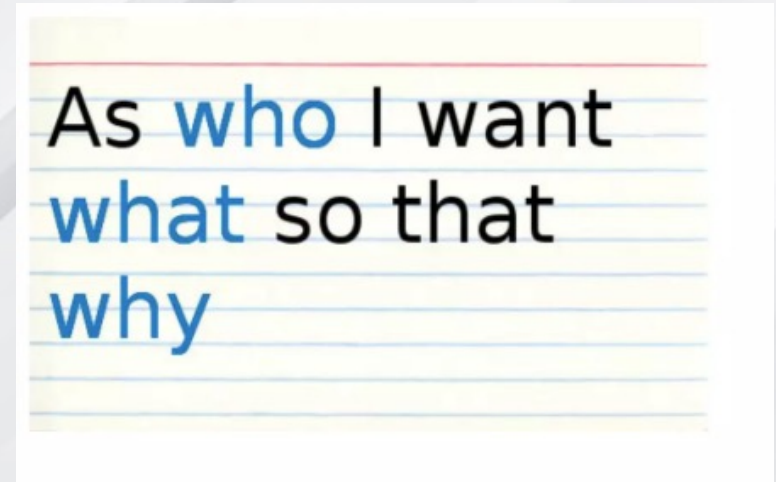
- “A prioritized list of all the work that needs to be done to complete the project as new features, changes to existing features, fixes, process changes, or other activities.”
- The single source for things that a team works on. i.e. nothing gets done that isn't on the product backlog
- Product Backlog can be modified (add new, delete, modify) in a process called Backlog Grooming/Refinement performed after each Iteration's Retrospective.
- Can be comparable WBS Work Packages in Traditional Project Management

Product Backlog Example

	Id	Backlog Item	Assigned to Sprint	Priority	Status	Working Hours	
						Estimate	Actual
	1	Feature 1	1	Must Have	Open	8	2
	2	Feature 2	1	Must Have	Open	4	3
	3	Feature 3	1	Must Have	Open	4	0
	4	Feature 4	2	Should Have	Open	2	0
	5	Feature 5	2	Should Have	Open	2	0
	6	Feature 6	2	Should Have	Open	4	0
	7	Feature 7	-	Nice to Have	Closed	2	0
	8	Feature 8	-	Nice to Have	Closed		
	9	Feature 9	-	Nice to Have	Closed		
					TOTAL	27	5

User Story

- A short description of a feature or requirement from the user perspective.
- A user story involves roughly 1 to 3 days' worth of work or "4 to 40 hours' worth of work
- Help align team priorities with the needs of the business.
- Written on a card in the following format:



*"As a <Role>, I want <Functionality>, so that
<Business benefit >."*

User Story Examples

User Story

As a potential customer

I want to read book reviews

So that I can decide which one to buy

As a credit card holder, I want to view my statement balance, so that I can pay the balance due

- Display statement balance upon authentication
- Display Total Balance
- Show “Payment Due Date” and “Minimum Payment Due”
- Display Error message if service not responding/ timeout

Front →

As a user, I want to be able to cancel my reservation at anytime so that I do not lose all the money if an incident occurs.

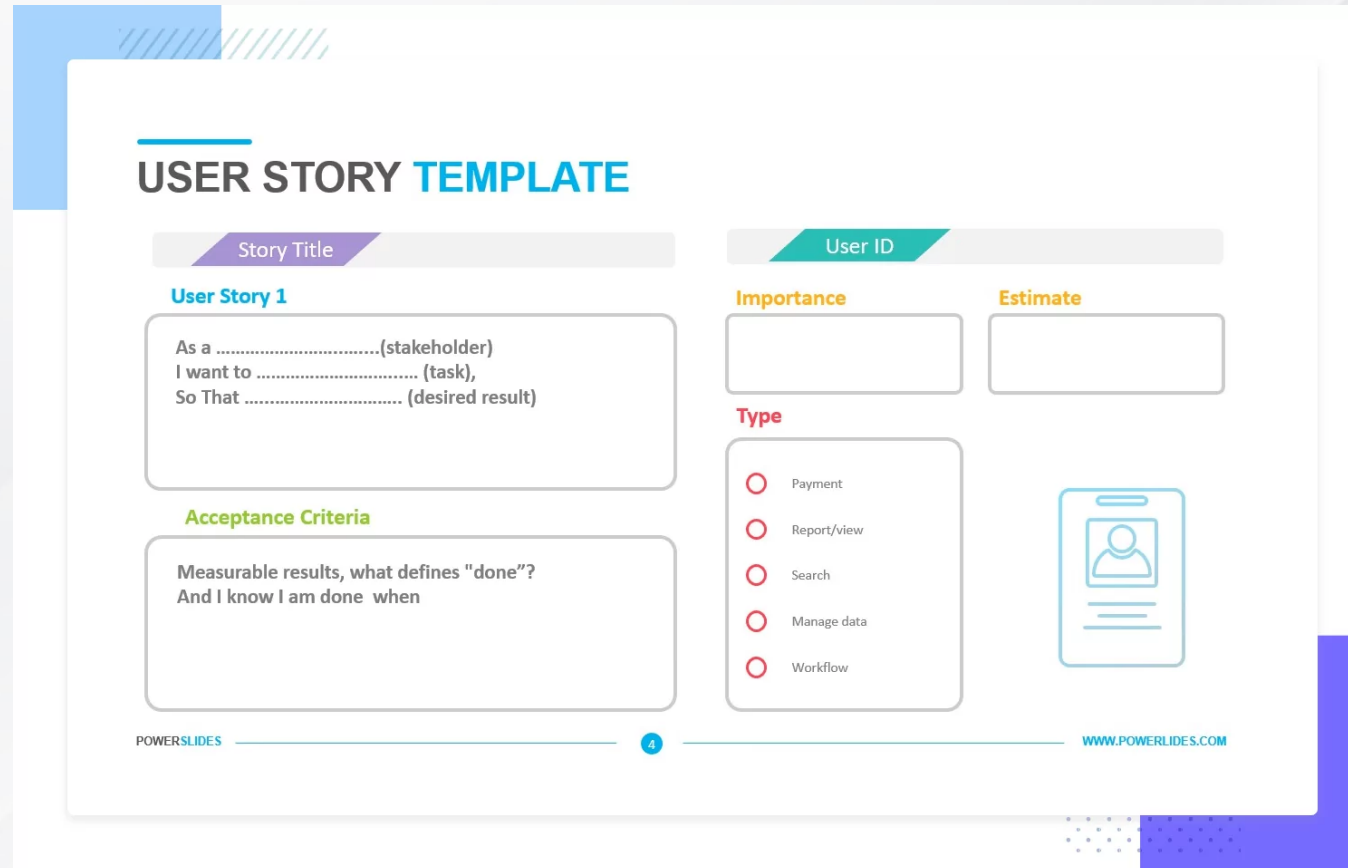
Back

- The product owner's conditions of satisfaction can be added to a story
- These are essentially tests

- ☐ Verify that a premium member can cancel the same day without a fee.
- ☐ Verify that a non-premium member is charged 10% for a same-day cancellation.
- ☐ Verify that an email confirmation is sent.
- ☐ Verify that the hotel is notified of any cancellation.

Definition of “Done” / Acceptance Criteria

- A set of criteria that must be met in order for a work item to be considered truly complete.



The diagram illustrates a 'USER STORY TEMPLATE' with a structured layout. At the top left, a blue decorative corner element is present. The template itself is a white rectangle with a blue header bar containing the title 'USER STORY TEMPLATE'. Below the header, the form is divided into several sections. On the left, there is a 'Story Title' field with a purple gradient bar. Below this is a 'User Story 1' section containing a text box with the template: 'As a(stakeholder) I want to (task), So That (desired result)'. Below the text box is an 'Acceptance Criteria' section with a green gradient bar and a text box containing: 'Measurable results, what defines "done"? And I know I am done when'. On the right side, there is a 'User ID' field with a teal gradient bar. Below this are two fields: 'Importance' and 'Estimate', both with orange gradient bars. Below these is a 'Type' section with a red gradient bar, containing a list of five options: 'Payment', 'Report/view', 'Search', 'Manage data', and 'Workflow', each preceded by a red circle. To the right of the 'Type' list is a blue icon of a smartphone displaying a user profile. At the bottom of the template, there is a footer bar with 'POWERSLIDES' on the left, a blue circle with the number '4' in the center, and 'WWW.POWERLIDES.COM' on the right. A blue decorative corner element is also present at the bottom right of the template.

USER STORY TEMPLATE

Story Title

User ID

User Story 1

As a(stakeholder)
I want to (task),
So That (desired result)

Acceptance Criteria

Measurable results, what defines "done"?
And I know I am done when

Importance

Estimate

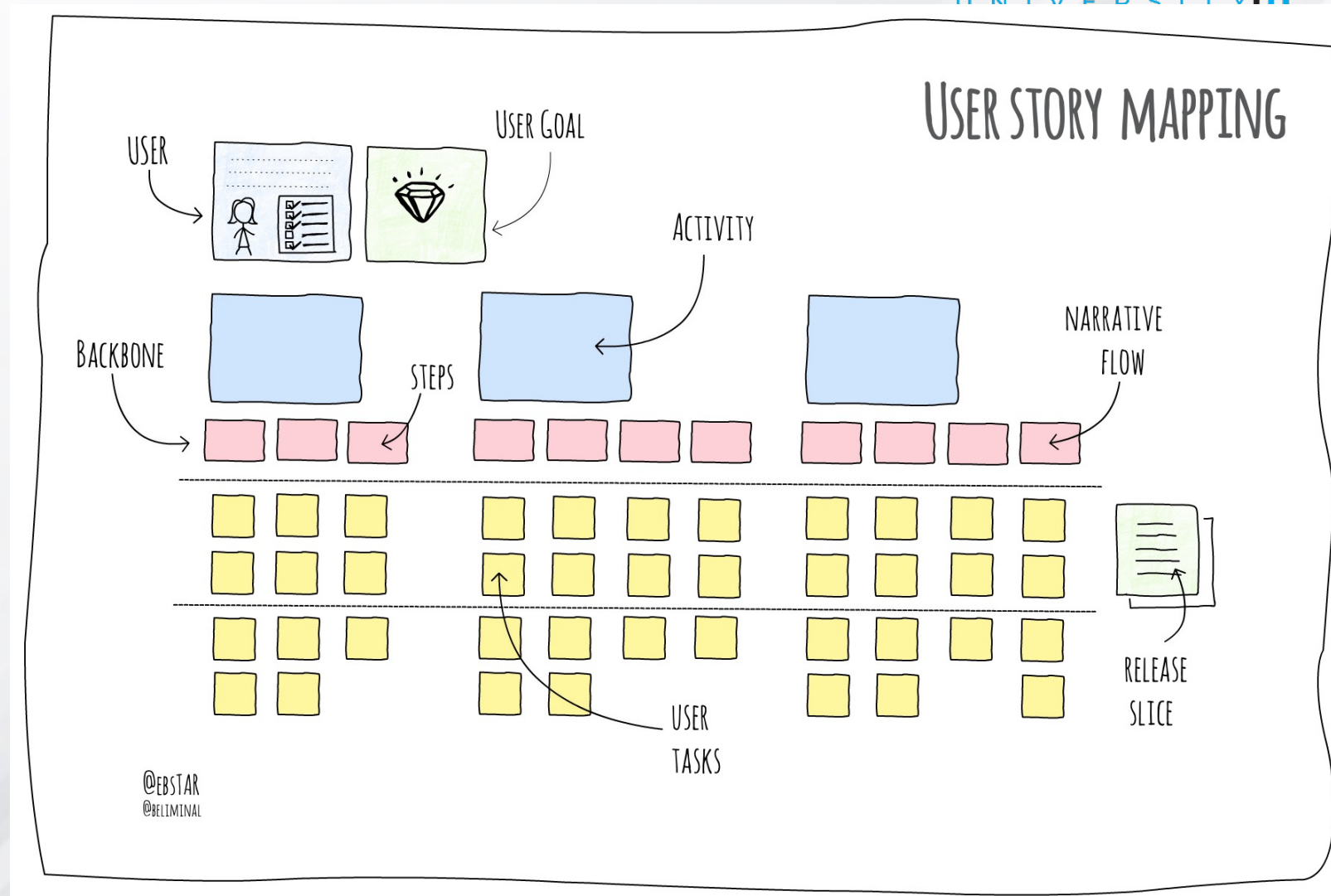
Type

- ☐ Payment
- ☐ Report/view
- ☐ Search
- ☐ Manage data
- ☐ Workflow

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Story Mapping

- Story mapping consists of ordering user stories along two independent dimensions.
- Help understand “User Journey”
- Along the horizontal axis user activities are put roughly in the order in which the user would perform the task.
- Down the vertical axis, user stories are ordered by priority and/or increasing sophistication of the implementation.



Iteration/Sprint

- A short period of time (usually one to two weeks) during which the team works on a specific set of tasks from the backlog.
- **Iteration/Sprint Backlog**: A list of all the work that the team plans to complete during a sprint. Is a subset from the Product backlog items usually written in user stories format.

	Id	Backlog Item	Assigned To	Due	Status	Working Hours	
						Estimate	Actual
	1	Task Description 1	None	Day 10	Open	8	2
	2	Task Description 2	TB	Day 8	Open	4	3
	3	Task Description 3	NB	Day 12	Open	4	0
	4	Task Description 4	-	-	Open	2	0
	5	Task Description 5	ST	-	Open	2	0
	6	Task Description 6	-	-	Open	4	0
	7	Task Description 7	-	-	Closed	2	0
	8	Task Description 8	-	-	Closed		
	9	Task Description 9	-	-	Closed		
					TOTAL	27	5

Daily Meeting / Daily Scrum / Standup Meeting

- A short (5 to 15 minutes), daily meeting where the team discusses their progress, plans, and any roadblocks they are facing.
- Sometimes held while the team standing to make sure it stays short.
- Uses Kanban Boards and follows a structure



Name

- What did you do yesterday?
- What will you do today?
- Where are you blocked?
- Comfort Level — How close are we to hitting our sprint goals?

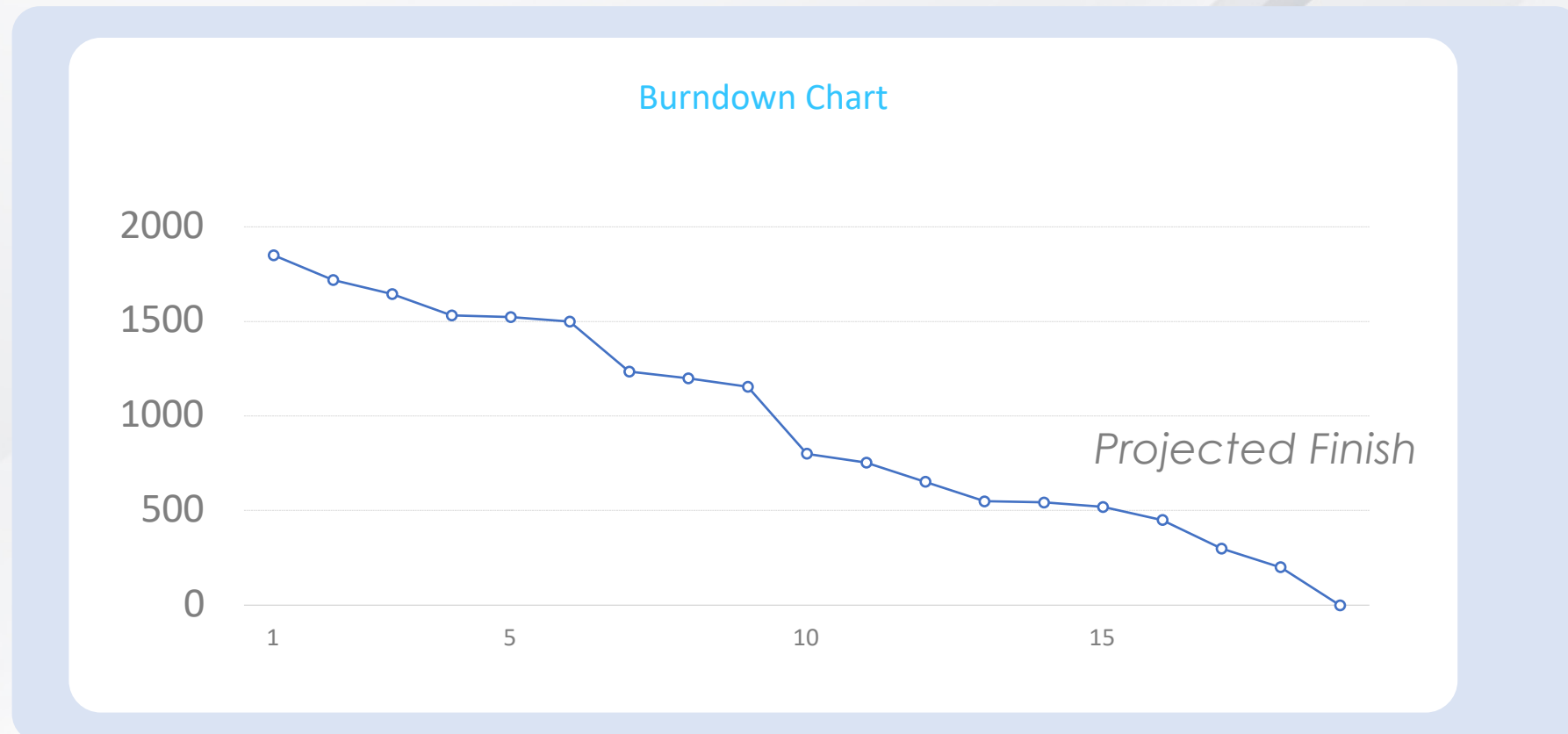
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Tips:

- Use this 15-minute meeting to check the pulse on your work and stay on top of your sprint
- Remember: Problem-solving is not part of scrum (although it can take place informally right after).
- Personalize this template with an update section with the name of each engineer

Burn Down Chart

- A measure of progress depicted as a visual chart that shows how much work remains to be done on a project or iteration.



Iteration/Sprint Retrospective

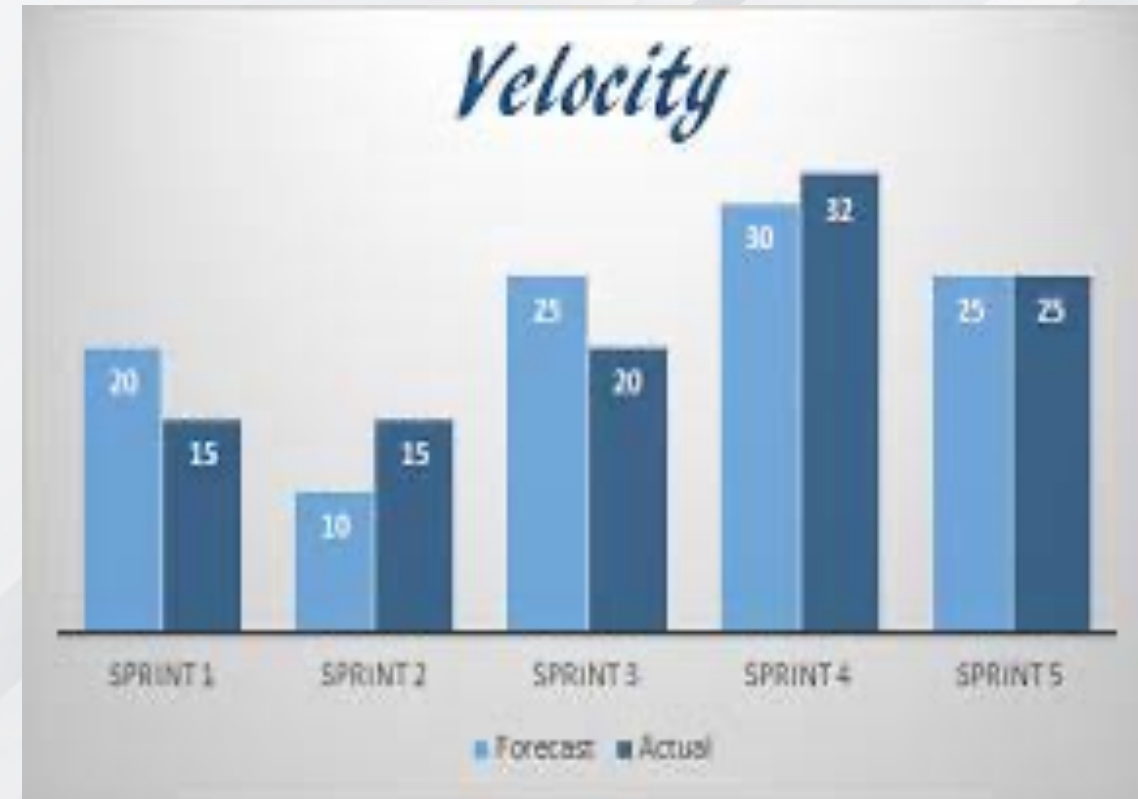
- A meeting, held at the end of each iteration/sprint, where the team reflects on their work and identifies areas for improvement.
- Product Backlog Refinement/Grooming may be done as a result of the Retrospective

The image shows a digital retrospective board with four columns, each with a title, an 'Add Card' button, and a list of cards. Each card has a text area, a comment input field, and a trash icon.

- What's working?** (Teal header)
 - Card 1: Team communication has been really great recently. (0 likes, 0 comments)
 - Card 2: We're getting a lot of positive customer feedback. (0 likes, 0 comments)
 - Card 3: My new diet is working! I've lost 5 pounds! (0 likes, 1 comment)
- What's not working?** (Purple header)
 - Card 1: Music out loud was a good idea, but we never can agree on anything. (0 likes, 1 comment)
 - Card 2: Maybe we can set a time for headphones, and a time for music being played out loud? (0 likes, 0 comments)
 - Card 3: Our investors have unrealistic expectations for what we can handle over a sprint. (0 likes, 0 comments)
- Who's been a superstar?** (Yellow header)
 - Card 1: Paulie cranked it out this past sprint. (0 likes, 0 comments)
 - Card 2: Derrick Henry has been a beast for my fantasy team recently. (0 likes, 1 comment)
 - Card 3: We'll see about next week when he plays my Colts! (0 likes, 0 comments)
- How would you rate the past sprint?** (Dark blue header)
 - Row 1: 1 (1 like, 0 comments)
 - Row 2: 2 (4 likes, 0 comments)
 - Row 3: 3 (1 like, 0 comments)
 - Row 4: 4 (0 likes, 0 comments)
 - Row 5: 5 (0 likes, 0 comments)

Velocity

- A measure of the amount of work a team can complete in a period of time.
- Measured in story points, a unit of measurement that represents the effort required to complete a user story.



Increment/Release

- An Agile increment or release is a working version of a product that is delivered to customers at the end of a sprint or iteration.
- Typically, a small, but complete and usable, piece of the product that includes new features and functionality.
- Benefits:

Customer is satisfied
and can use the
product

Learn from mistakes
and adapt to change
quickly

Test product in
market and reduce
risk of not meeting
requirements

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Key Points

Agile Frameworks and Methodologies have similar processes that might differ in naming and terminology

The role of the Project Manager in Agile is a coach, facilitator, and enabler for success.

The Customer (Product Owner) is represented in the team

In Initiating and Planning an Agile project, we do Product Vision, Product Roadmap, and Product Backlog

In Executing an Agile project, we do Iteration Planning, User Stories, Iteration Backlog, and Iteration Retrospective, work is monitored through Daily Meetings, Burn Down, and Velocity Charts

Preparation for discussion panel:

- “Watch the Video: [“Introduction to Scrum – 7 minutes”](#)”
- Question for Discussion: As a project manager moving from Traditional to Agile project management:
- Which practices you can adapt to easily and which practices you will find difficultly in adapting to?



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For Discussion Panel

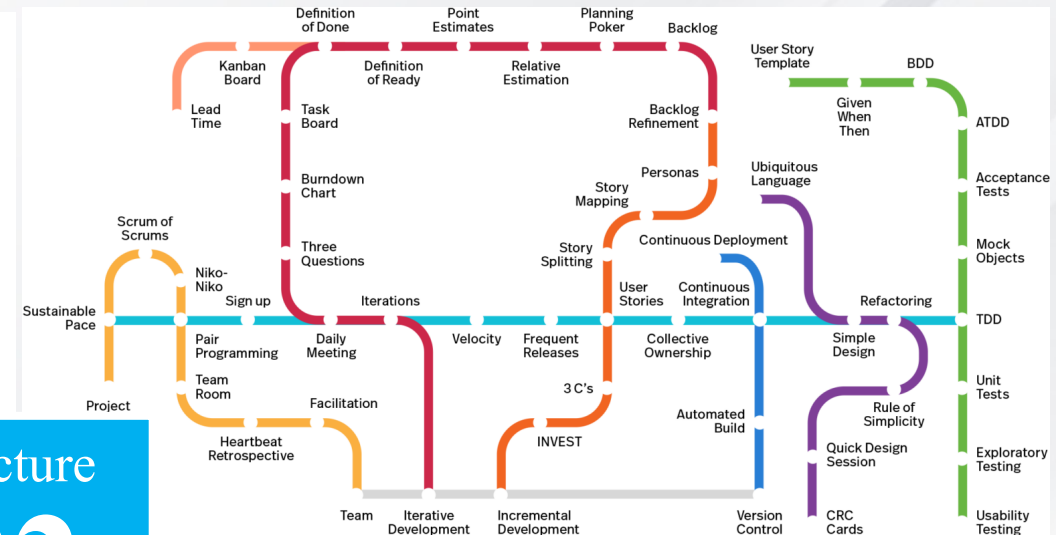
Before next lecture:

- Familiarize yourself with Agile Terminology :

<https://www.agilealliance.org/a101/subway-map-to-agile-practices/>

- Click on the circle beside the term to get its definition
- Try to test your knowledge before clicking on them

Lecture 02



For Next Lecture



Thank You