Innovative Agile Project Based Learning

Agile artifacts

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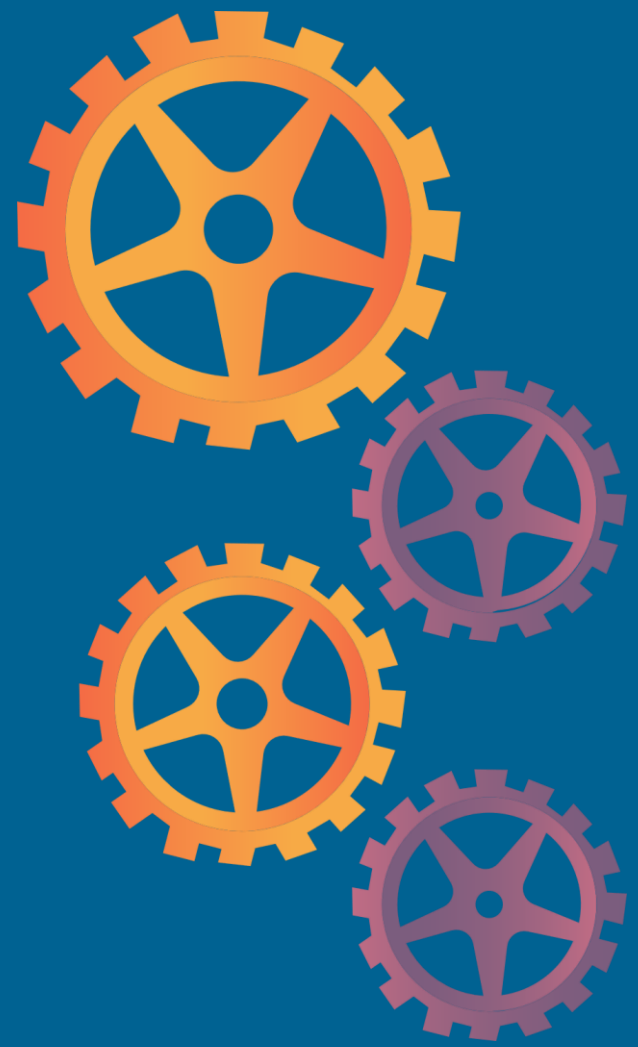
Agenda

- What are the three scrum artifacts
- Product Backlog
- Sprint backlog
- Product Increment



What are the three scrum artifacts

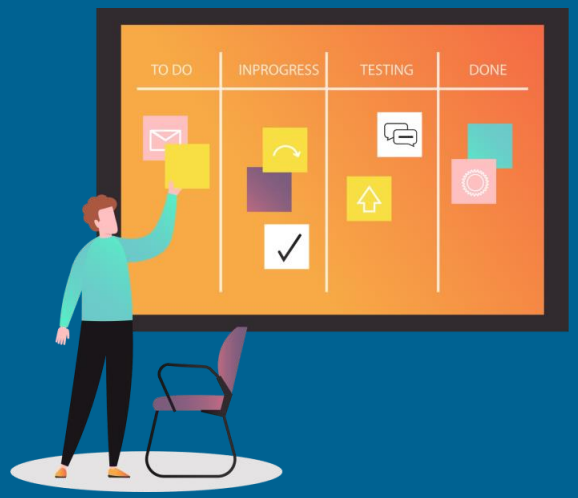
“Agile scrum artifacts are information that a scrum team and stakeholders use to detail the product being developed, actions to produce it, and the actions performed during the project. They provide metadata points that give insight into the performance of a sprint. They are essential tools for every scrum team since they enable core scrum attributes of transparency, inspection, and adaption. Artifacts are created during the main activities of a scrum sprint.”

(CHANDLER HARRIS ,https://www.atlassian.com/)

Product backlog

What is a product backlog?

- a prioritized list of work for the development team that is derived from the roadmap and its requirements
- the most important items are shown at the top of the product backlog so the team knows what to deliver first
- the development team doesn't work through the backlog at the product owner’s pace and the product owner isn't pushing work to the development team
- the development team pulls work from the product backlog as there is capacity for it, either continually (kanban) or by iteration (scrum).



How to build a healthy product backlog/1

A well-prioritized agile backlog:

- makes release and iteration planning easier
- broadcasts all the things your team intends to spend time on
- helps set expectations with stakeholders and other teams
- makes engineering time a fixed asset

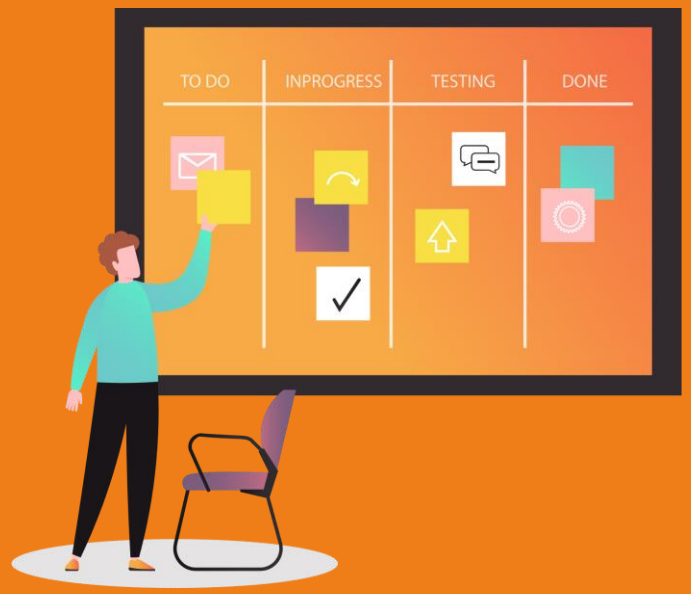
How to build a healthy product backlog/2

Start with:

Roadmap - *Requirements*

provide the foundation for the product backlog

- Roadmap initiatives break down into several epics
- Each epic have several requirements and user stories



How to create a product backlog

1. *Add ideas to the backlog*. Stakeholders will typically be approaching you with ideas for product improvements.
2. *Get clarification.* Once you're approached by a stakeholder with a product addition or fix, make sure you understand.
3. *Prioritize.*
4. *Update* the backlog regularly.

Why does a product backlog matter?

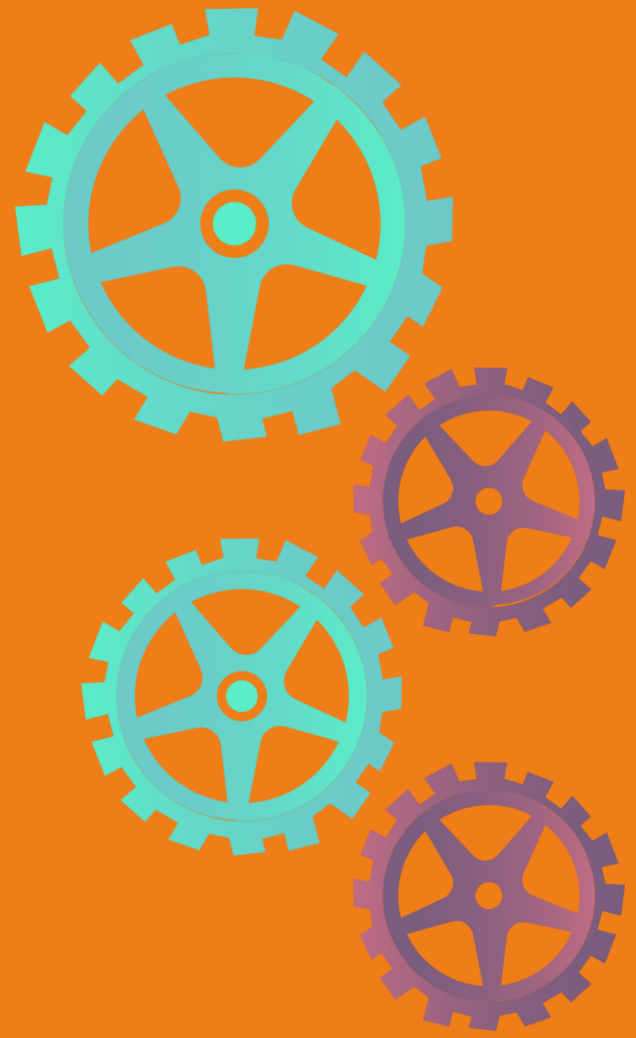
1. It’s an organized list that’s easily wrangled.

2. It’s simple to prioritize.

3. It can be changed as priorities change.

4. It allows you to immediately see dependencies and order them.

5. It allows you to think about products in the long-term, not just in terms of immediate needs.
(Sedano, et al.,2019).

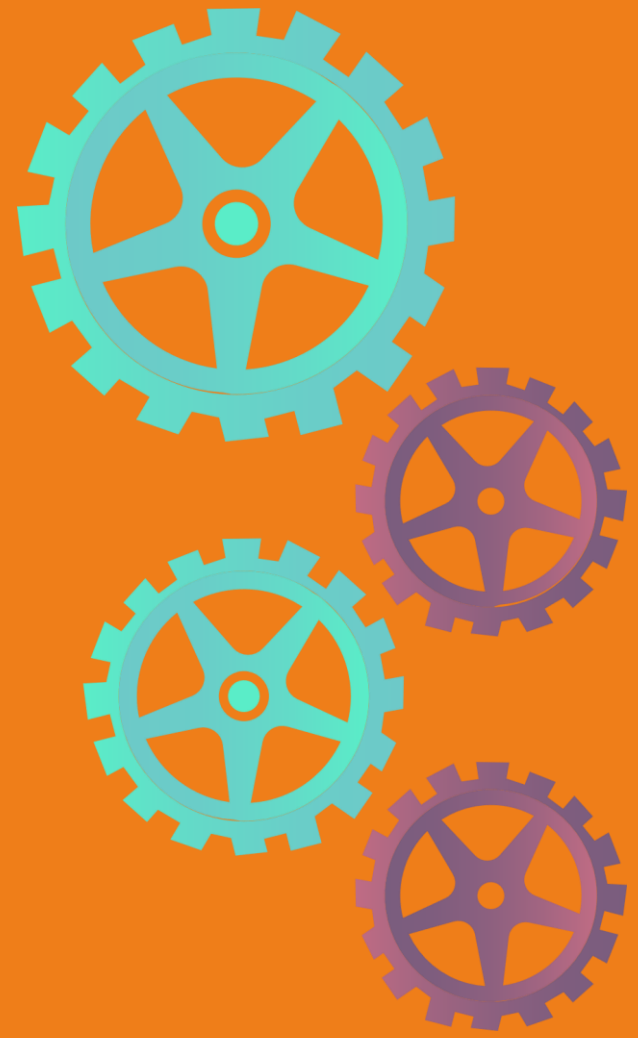


Product backlog prioritization/1

- The product backlog itself is owned by the product owner.
- He produces the very best product possible developing the most valuable additions.
- The most valuable addition would be at the very top.
- The most valuable addition likely has dependencies that need to be developed first.

Product backlog prioritization/2

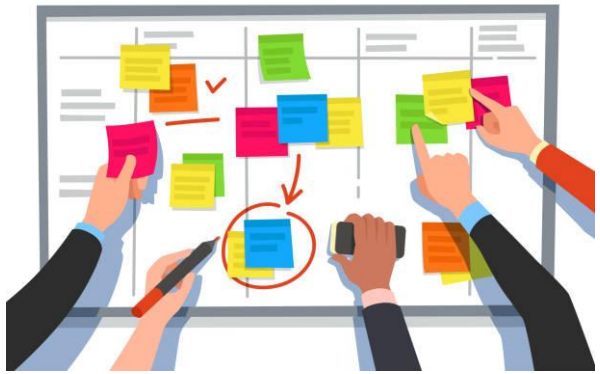
- ***Higher-priority items*** should be refined and have great value to the product.
- ***Mid-priority items*** should be candidates for refinement (the process of detailing each task)
- ***Low-priority items*** should not be a dependency and can be safely ignored until they are candidates for refinement.
- As items progress closer to the top of the list to be added to the next sprint cycle, they should be refined so they can be better acted upon.



Sprint backlog

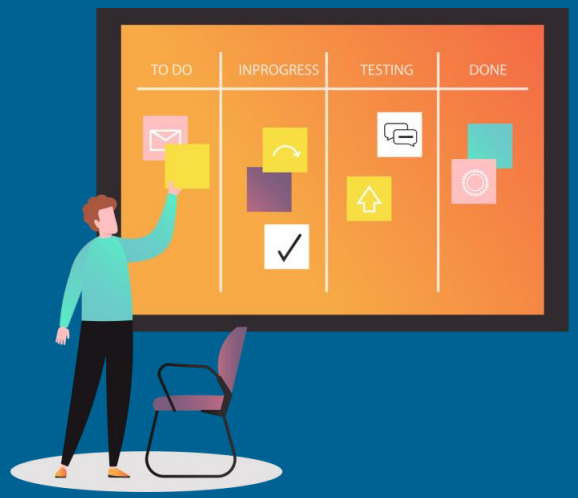
- A sprint backlog is the set of items that a cross-functional product team selects from its product backlog to work on during the upcoming sprint.
- During the sprint planning meeting, the team selects some number of product backlog items, usually in the form of user stories, and identifies the tasks necessary to complete each user story.
- A sprint backlog is a subset of the product backlog and lists the work items to complete in one specific sprint.

(Dalton, 2019)



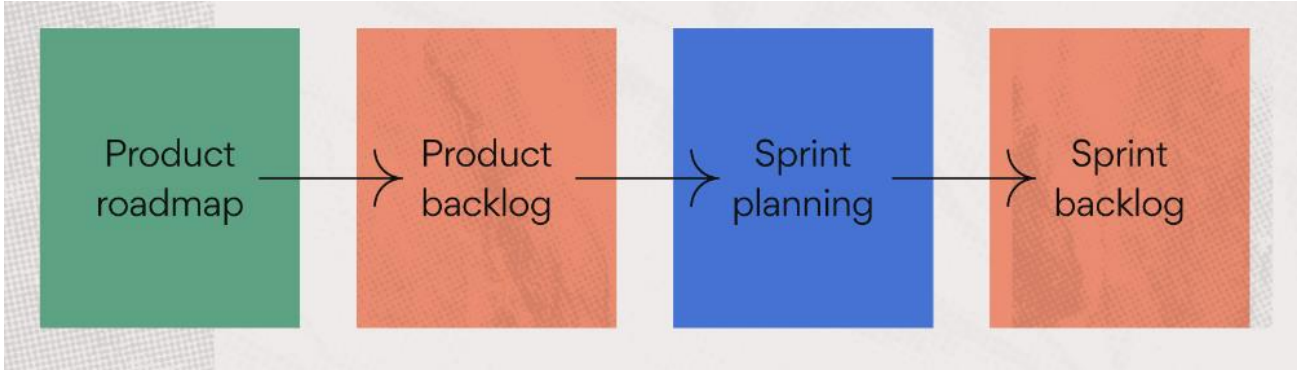
What is the purpose of a sprint backlog?

- The purpose of a sprint backlog is to define work items to tackle within the sprint.
- This keeps information in one shared space in order to streamline communication and create one central source of sprint information.
- Items that are not in the backlog are not in scope.
- This creates a clear path, ensuring team members can focus on the task ahead.



When is a sprint backlog created?

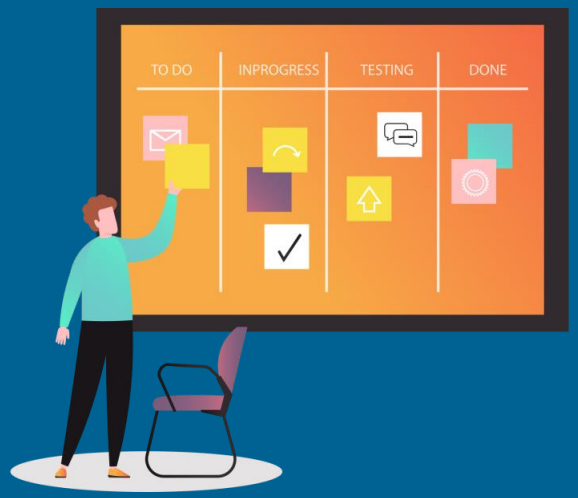
- Create a sprint backlog during the planning phase of a new project sprint. While you can update individual tasks with details and additional progress during the sprint, the backlog itself shouldn't alter during execution.
- The log is then stored in a shared space for stakeholders and Scrum masters to review during a retrospective meeting to evaluate what went well and what didn’t.
- A sprint backlog is the source of all sprint information, making it a crucial component of any successful sprint strategy. It can be helpful to think of a sprint backlog as a roadmap to log all Scrum artifacts.



What’s included in a sprint backlog?/1

- User story: A user story is a software feature written from the perspective of the end user. It’s an important piece to include in order to understand the effect each feature has on the end user.
- Task name: While obvious enough, keep your backlog organized by starting each task with a clear, action-oriented name. Ensure each task title starts with a verb—for example, “Design new mobile component for web app” is more descriptive than “New mobile component.” This will help stakeholders quickly understand the backlog and deliverables that each team member is working on.
- Task description: Along with an actionable name, include a brief description of each task. This creates clarity around tasks so stakeholders are aware of upcoming steps.
- Task prioritization: Since there are a number of tasks in a given project, it’s important to prioritize your most important objectives. This ensures you meet deadlines and your sprint stays on track.

What’s included in a sprint backlog?/2



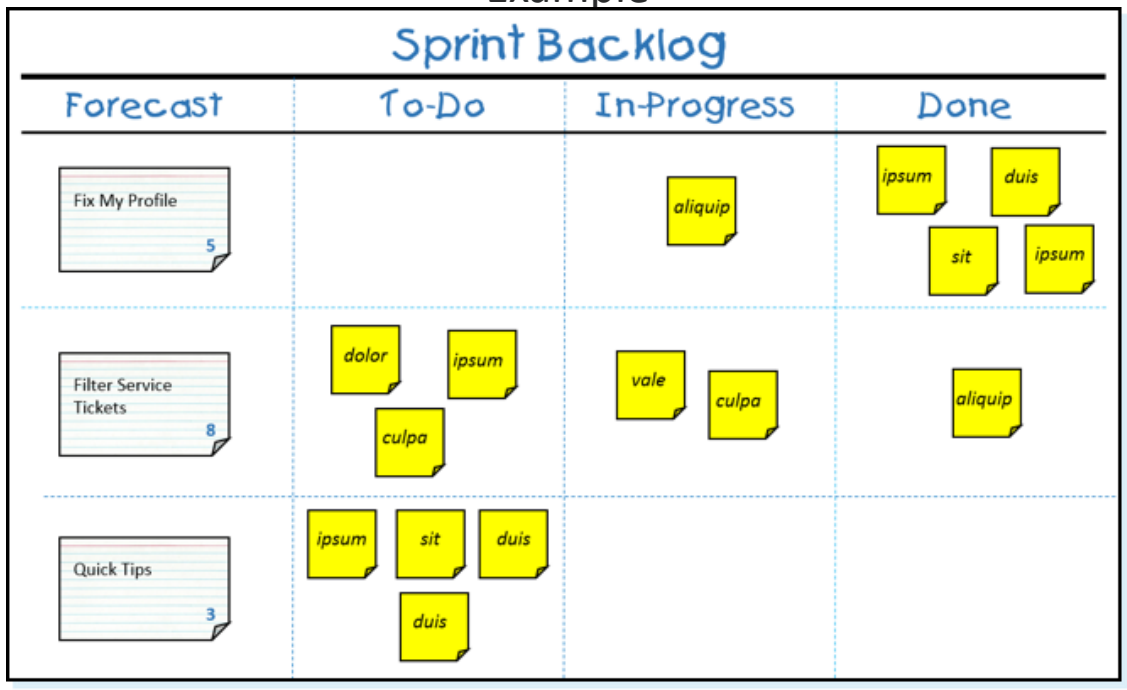
- Sprint burndown chat: A burndown chart is a graph that represents the work left to do versus the time it takes to complete it. During a sprint, your team will use these charts to estimate how long each iteration will take.
- Daily time allocation: In order to track your time estimates against the actual time on your burndown chart, you need to track daily time allocations. Analyze how long each task takes in minutes or hours. At the end of the week, total up your weekly time allocations for each task to complete your burndown chart.

(https://asana.com/pt/resources/sprint-backlog)

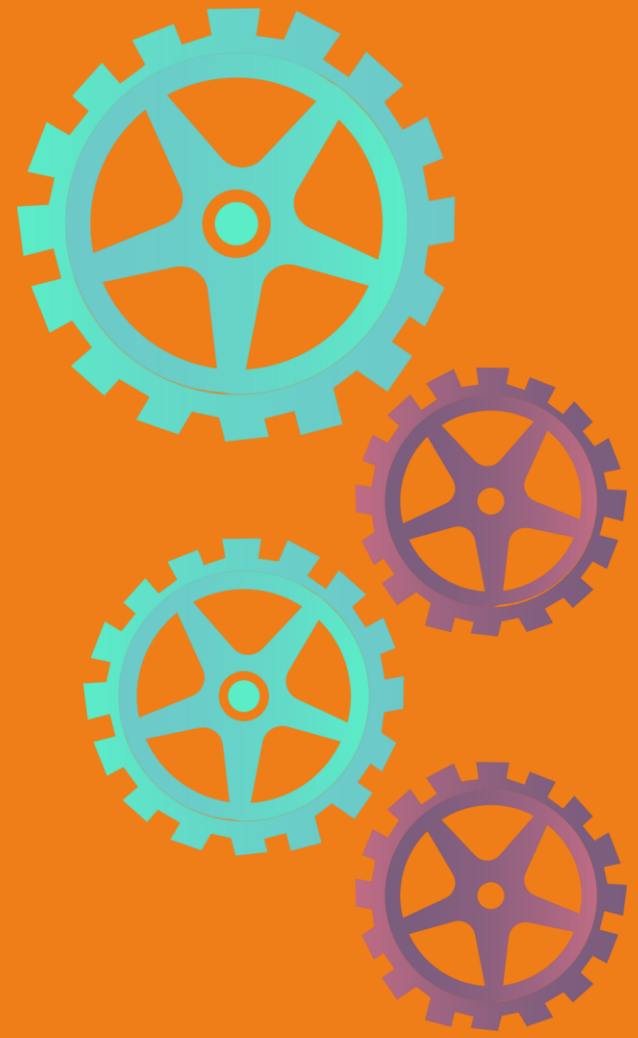
How to create a sprint backlog

The key to creating a backlog is to make a blank template that you can use for each of your sprints. In your template, you should include columns for each of the functionalities listed above.

Example



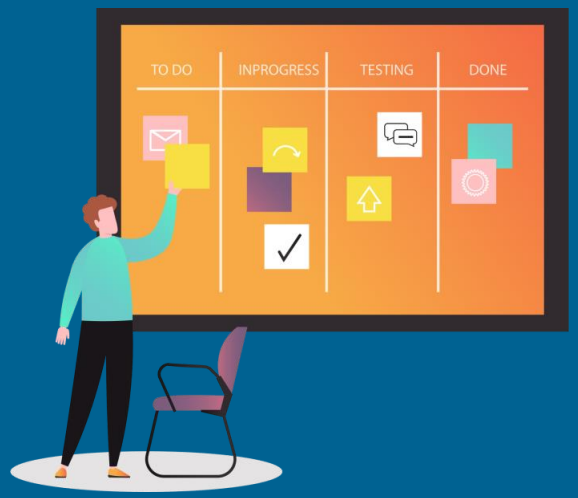
https://www.scrum.org/resources/what-is-a-sprint-backlog



Product Increment

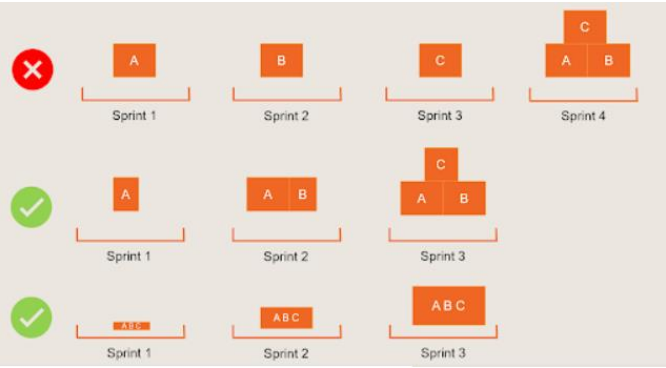
- ”a concrete stepping stone toward the product goal. Each Increment is additive to all prior Increments and thoroughly verified, ensuring that all Increments work together. To provide value, the Increment must be usable…The entire scrum team is accountable for creating a valuable, useful Increment for every Sprint”.
- In scrum, a product increment is whatever you previously built, plus anything new you just finished in the latest sprint, all integrated, tested, and ready to be delivered or deployed.

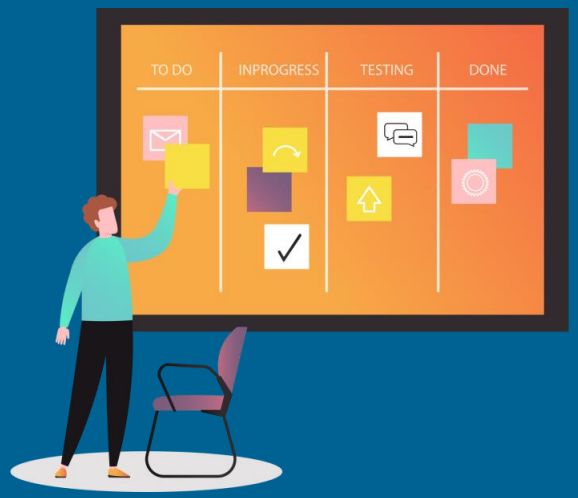
(https://resources.scrumalliance.org/Article/product-increment)



Importance of product increment

- Without a usable product increment, development teams are delaying delivery of value and are missing opportunities to get real user feedback and adapt the product to ensure customer satisfaction.
- Incremental releases allow for fast feedback, quicker innovation, continuous improvement, rapid adaptation to change, and more delighted customers
- You build and test an item in sprint 1, and then in the next sprint, you continue adding new integrated and fully tested functionality to that item. What the team releases after each sprint is often referred to as an iteration. With iterative development, you can always learn from what you already have, improve on it, and add to it.





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