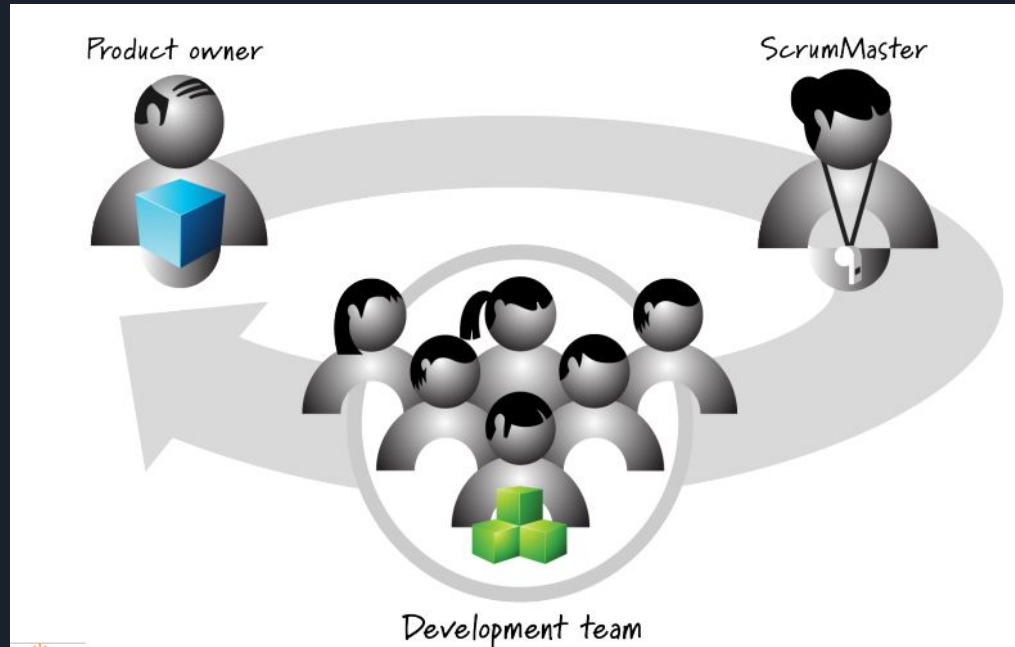


# Scrum Framework



# Scrum Roles



# Product Owner

- **Central Point of Product Leadership**
  - Acts as the empowered leader for product decisions
  - Ensures a unified vision throughout the project lifecycle.
- **Single Authority on Product Features**
  - Decides on the features and functionality of the project
  - Responsible for maintaining and prioritizing the product backlog
- **Vision and Value-Driven**
  - Provides a clear vision for the team, outlining what needs to be achieved.
  - Prioritized work items from highest to lowest value to maximize efficiency and ROI.

Product owner



# Scrum Master

- **Unique Leadership Role**
  - Not a traditional manager, but a leader and coach for the scrum team
  - Focuses on guiding rather than directing.
- **Facilitator of Scrum Events**
  - Ensures smooth conduct of key scrum events: Daily Scrums, Sprint Planning, Sprint Review, and Sprint Retrospective
- **Coach for Scrum Principles**
  - Educates and supports the team and organization in understanding and adopting scrum
- **Impediment Remover**
  - Actively identifies and removes obstacles that hinder the team's progress (if/when the team is unable to do so).



# Development team

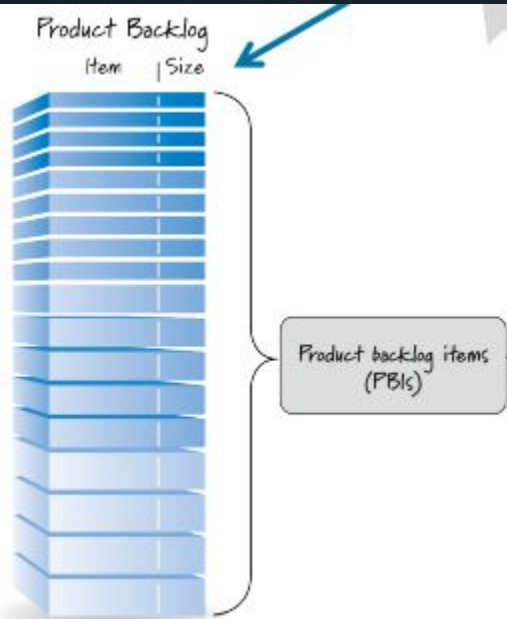
- **Central to the Scrum Framework**
  - Responsible for the hands-on work of developing the product.
  - Fundamental in turning product ideas into functional deliverables.
- **Cross-Functional Nature**
  - Team members possess a diverse set of skills necessary for product creation.
  - Promotes adaptability and teamwork over isolated expertise.
- **Self-Organizing Dynamics**
  - Operates without micromanagement
  - Team collectively decides on how to approach/breakdown the product backlog into actionable iterations.
- **Focus on Deliverables**
  - Strives for delivering potentially shippable increments at the end of each sprint.
  - Balances individual strengths with the team's overall goals.



# Scrum Artifacts



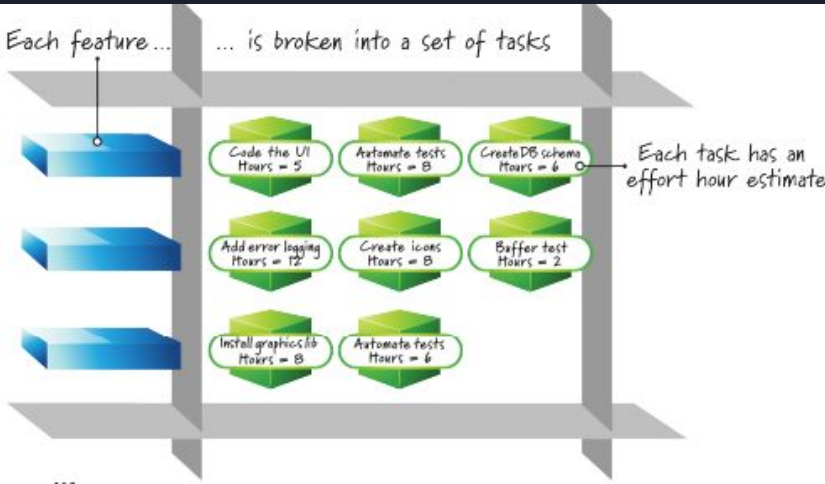
# Product Backlog



- A Fundamental Scrum Event
  - Serves as the primary list of work and requirements for the Scrum Team.
  - Constantly Evolving and adapting to the project's needs.
- Managed by the Product Owner
  - The product owner is responsible for its creation, maintenance, and prioritization
- Characteristics of the Product Backlog
  - A living document that changes as the product and environments evolve
  - Contains all the features, functions, requirements, enhancements, and fixes that make up the modifications that will be made to the product in future releases.
- Facilitates Flexibility and Order
  - Provides a structured yet flexible approach to product development

# Sprint Backlog

- The sprint backlog is a subset of the product backlog, this backlog contains the items with descriptions/tasks for each item that is to be completed in the current sprint. This is important because it breaks problems down into smaller tasks to help simplify the problems/tasks at hand.





# Potentially Shippable Product Increment

- The term potentially shippable is stating that a product is complete enough to be delivered to the customer. This does not imply that the product will ship at the end of each Sprint, but it should be ready to ship, pending approval from the product owner. This is super helpful because it helps build feedback and transparency through the team to be on the same page and efficient in the work being done.



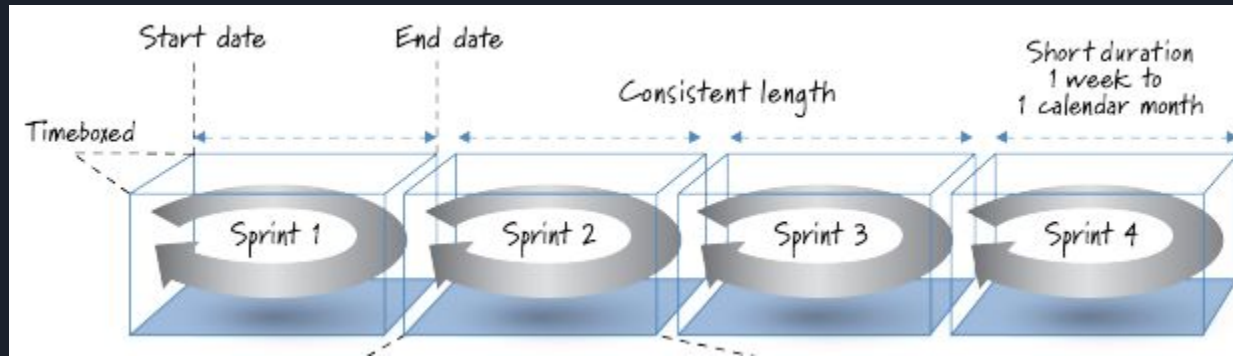
Potentially  
shippable product  
increment

# Scrum Activities



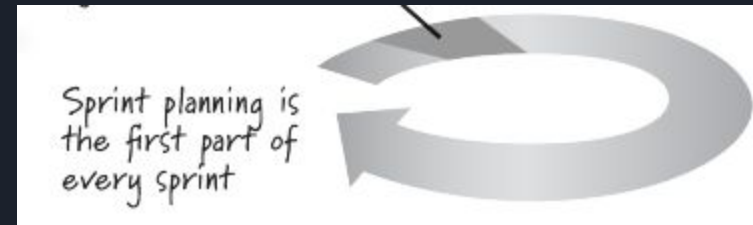
# Sprint

- Iterations or cycles up to a calendar month where work is completed.
- The work done in these sprints should create something of tangible value for the customer or user
- Sprints are timeboxed so they always have a fixed start and end date and generally all have the same duration



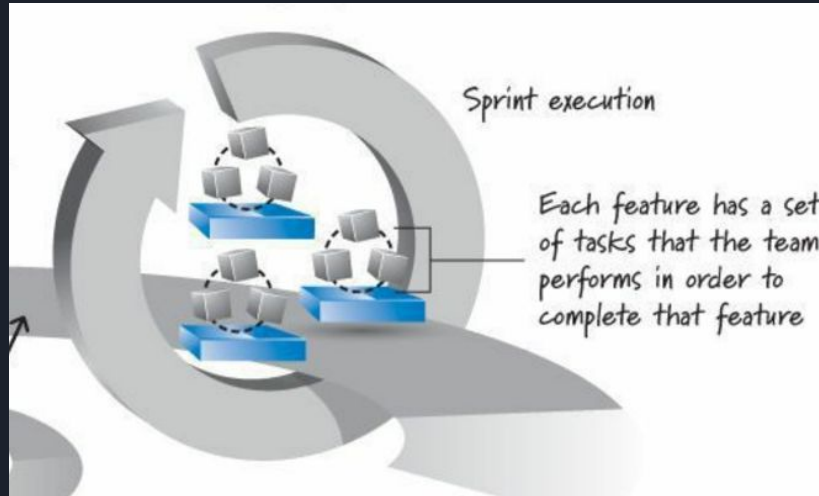
# Sprint Planning

- A process performed by the product owner, development team, and ScrumMaster meant to determine the most important subset of product backlog items to build in the next sprint
- During planning the product owner and development team agree on a sprint goal for each sprint
- The goal helps determine what high-priority item can be realistically accomplished by the team while working at a sustainable pace
- Some teams break down targeted goals into a set of tasks.
- The collection of these tasks with their product backlog items come together to form the sprint backlog



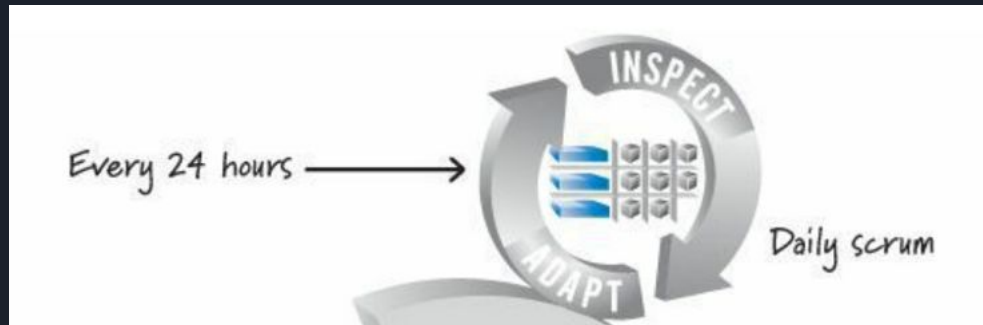
# Sprint Execution

- Once planning is done, guided by the ScrumMaster, the team begins working on all of the task level work until they are “done”.
- Done meaning there is a high level of confidence that all the work necessary for producing good quality features has been completed.



# Daily Scrum

- Each day of the sprint, at usually the same time, the development team members hold a timeboxed daily scrum. The Scrum Master facilitates the group.
- Each team member takes turns answering three questions for the benefit of the team. By answering the three questions, the team understands the big picture of what is occurring, how they are progressing toward the sprint goal, any modifications they want to make to their plans for the upcoming day's work, and what issues need to be addressed.



# Sprint Review

- The sprint review is an inspect and adapt activity on the product being built.
- The main part of this activity is the conversation that takes place amongst the participants which usually include, the Scrum team, stakeholders, sponsors, customers, and interested members of other teams.
- The conversations are primarily focused on reviewing the just-completed features in the context of the overall development effort.
- All in attendance get a clear vision of what is occurring and the opportunity to help guide the forthcoming development to ensure that the most business-appropriate solution is created.



# Sprint Retrospective

- This activity frequently occurs after the sprint review and before the next sprint planning.
- This activity is an opportunity to inspect and adapt the process whereas sprint review inspects and adapts the product.
- During the retrospective the development team, ScrumMaster, and product owner come together to discuss what is and is not working with Scrum and associated technical practices.
- The focus is on the continuous process improvement necessary to help a good Scrum team become great.
- At the end the Scrum team should have identified and committed to a practical number of process improvement actions that will be undertaken by the Scrum team in the next sprint.





# Product Backlog Grooming

- The activity of creating and refining product backlog items, estimating them, and prioritizing them is known as grooming.
- The primary goal of backlog grooming is to keep the backlog up-to-date and ensure that backlog items are prepared for upcoming sprints.



# What are the Advantages of Scrum?





# Scrum Advantages

- Iterative and Incremental Development: Rework specific points of the product to get them perfect and set incremental milestones for completion of high value features
- Variability: Scrum expects variability. It is normal to adjust different aspects of the product to get it to perform exactly how we want it to. Scrum tries to prevent completing the same work over and over again
- Testing and Review: Constant testing and reviewing throughout the development of a product
- Encourages Feedback: At the end of each sprint feedback is given on what needs to be done next. Is the customer happy? Are we ready to move onto the next phase?
- Efficiency: Constant communication throughout the team consisting of daily meetings helps drive the project and avoid unnecessary roadblocks.
- Cost effective: Working in smaller sprints and fixing items in increments allows for keeping overhead low and avoiding large mistakes down the road that can bury a project

# What are the Disadvantages of Scrum?





# Scrum Disadvantages

- Lack of Definition: Scrum does not provide us with an upfront definition of how the project will play out or how long it will take. This can become frustrating for the customer if the project goes over schedule.
- Requires Skill: Because Scrum tends to be a somewhat chaotic process that has deliberate sprint deadlines, team members must be highly trained to do their part.
- Idle Work and Idle Workers: Two very real possibilities in Scrum that waste money and time. Idle work can be caused by other members of the team not doing their job and forcing others to wait in order to do their part. On the other hand, teammates that have already completed their part have the capability to do more but instead find themselves not contributing.
- Large Projects: Scrum is best used for smaller projects because of how the teams are built and the organization may not have the resources available.