



PMP® EXAM PREP

PMI Authorized Training Partner

BOOTCAMP

Session 8

Class times:

1:00 pm - 5:00 pm EDT

12:00 am - 4:00 pm CDT

11:00 am - 3:00 pm MDT

10:00 am - 2:00 pm PDT

Attendance Tracking Alert
**Please log into Zoom with your
correct first and last name.
Enter the same information
for every session.**

This course will assist learners in
preparing for PMI's PMP Exam
(2021 Update)

Instructor:

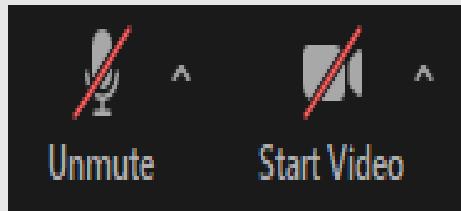
**Susan Daniels,
MBA, PMP, DASSM, ATP-I**



This webinar will be recorded
for quality purposes

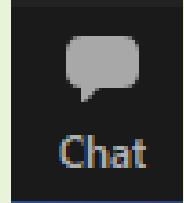
Participant cameras and
microphones are disabled

We are saving
everyone's
bandwidth usage
by
disabling
cameras and
microphones



• Ways to Participate in a Webinar

Find the Chat option in your Zoom command bar



Change the To: choice in the blue box to everyone.

To: **Everyone** ▾

Explore the Reactions option in your Zoom command bar



This is a fun way to provide quick and easy feedback

Q&A vs Chat Feature



Use Q&A to ask for

- Technical assistance
- Guidance on how to access course material – Percipio Y or N?
- Clarification on lecture points, if not answered by instructor
 - Please avoid asking for consulting services that are aligned to a highly specific situation.



Use Chat to

- Respond to instructor's questions
- Share examples of tools and techniques discussed
- Ask questions to clarify a concept, term or technique
- Instructor and Mentors will use ** NAME** when responding

Please be very patient,
Mentors respond to hundreds of inquiries per session.



Class Schedule

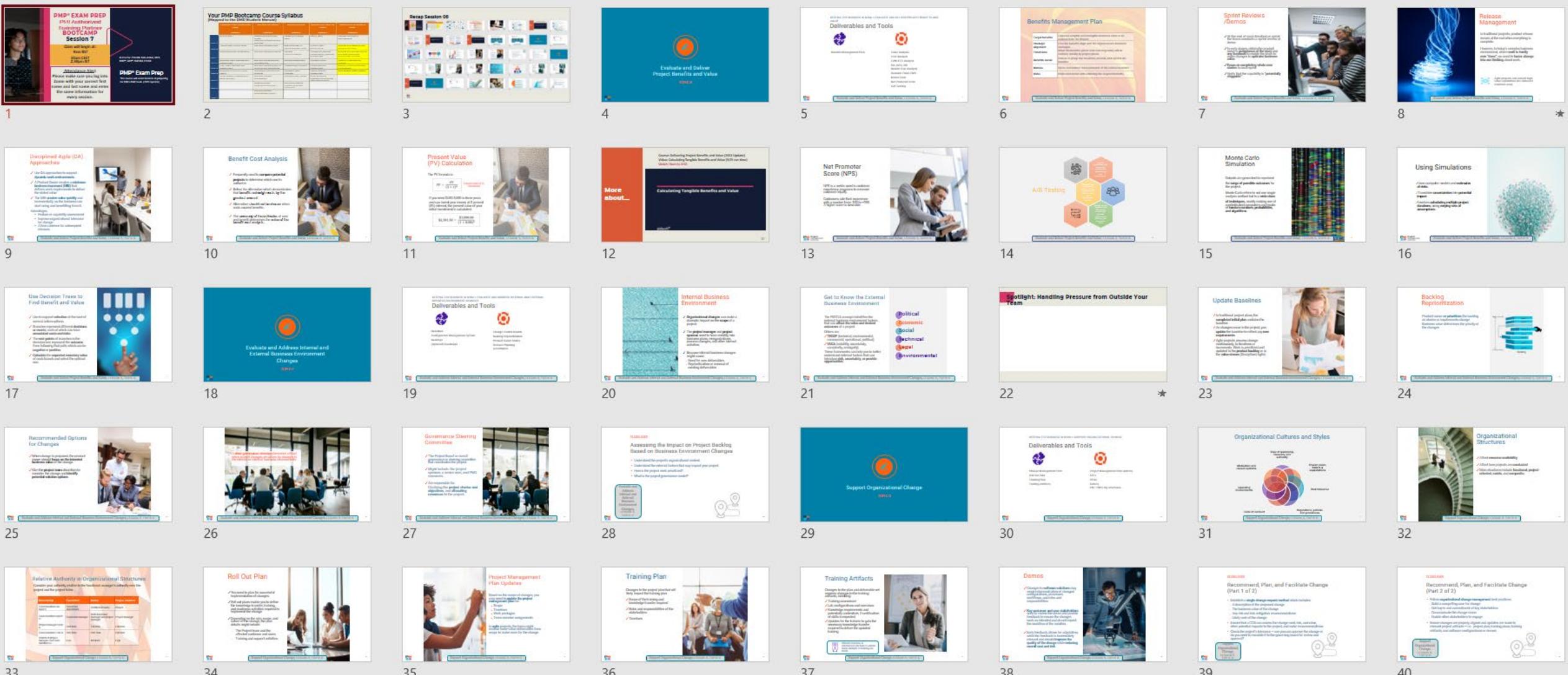
	Example for Eastern Time
1 st hour Presentation	1:00-2:00
1 st Break	2:00-2:10
2 nd hour Presentation	2:10-3:00
2 nd Break	3:00-3:10
3 rd hour Presentation	3:10-4:00
3 rd Break	4:00-4:10
4 th hour Presentation	4:10-5:00

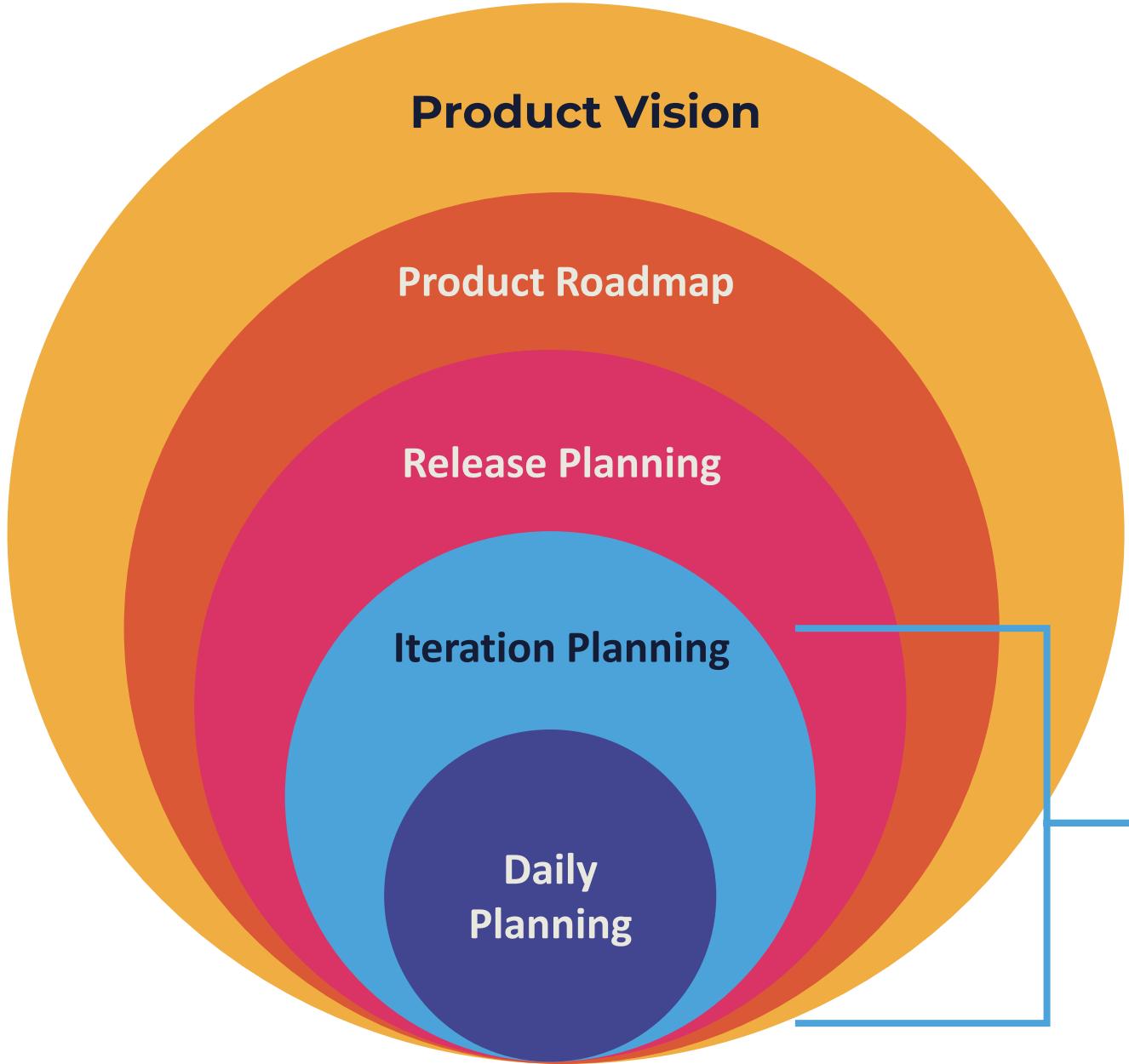
Your PMP Bootcamp Course Syllabus

(Mapped to the PMP Student Manual)

Creating a High-Performing Team		Starting the Project	Doing the Work	Keeping the Team on Track	Keeping the Business in Mind
	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Topic A	Build a Team	Determine Appropriate Project Methodology/Methods and Practices	Assess and Manage Risks	Lead a Team	Manage Compliance Requirements
Topic B	Define Team Ground Rules	Plan and Manage Scope	Execute Project to Deliver Business Value	Support Team Performance	Evaluate and Deliver Project Benefits and Value
Topic C	Negotiate Project Agreements	Plan and Manage Schedule	Manage Communications	Address and Remove Impediments, Obstacles, and Blockers	Evaluate and Address Internal and External Business Environment Changes
Topic D	Empower Team Members and Stakeholders	Plan and Manage Budget and Resources	Engage Stakeholders	Manage Conflict	Support Organizational Change
Topic E	Train Team Members and Stakeholders	Plan and Manage Quality of Products and Deliverables	Create Project Artifacts	Collaborate with Stakeholders	Employ Continuous Process Improvement
Topic F	Engage and Support Virtual Teams	Integrate Project Planning Activities	Manage Project Changes	Mentor Relevant Stakeholders	Plus, BONUS Agile Content!
Topic G	Build Shared Understanding about a Project	Plan and Manage Procurement	Manage Project Issues	Apply Emotional Intelligence to Promote Team Performance	
Topic H		Establish Project Governance Structure	Ensure Knowledge Transfer for Project Continuity		
Topic I		Plan and Manage Project/Phase Closure			

Recap Session 07





LEVELS OF PLANNING

NEXT SESSION

Incremental Delivery

- ✓ Enables value delivery sooner.
- ✓ Get higher customer value and increased market share.
- ✓ Allows partial delivery (or previews) to customers.
- ✓ Enables early feedback for the project team allowing for adjustments to the direction, priorities, and quality of the product.



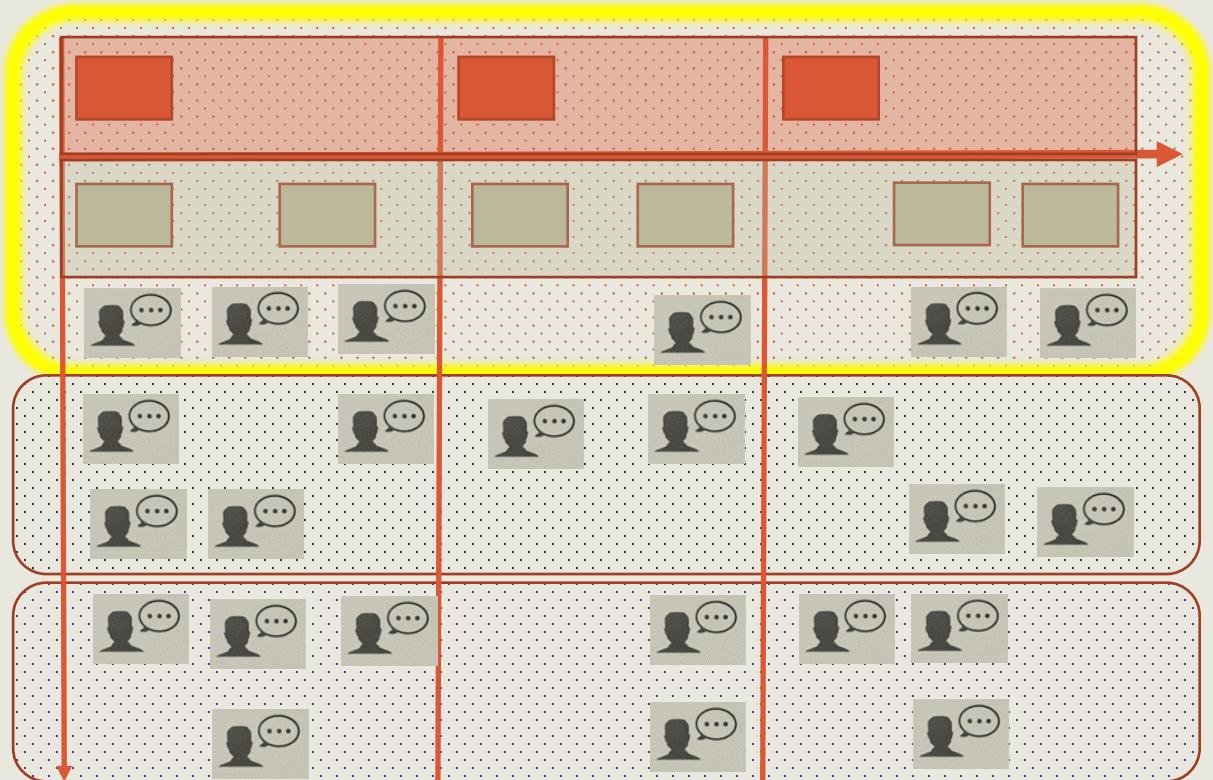
PRODUCT ROADMAP

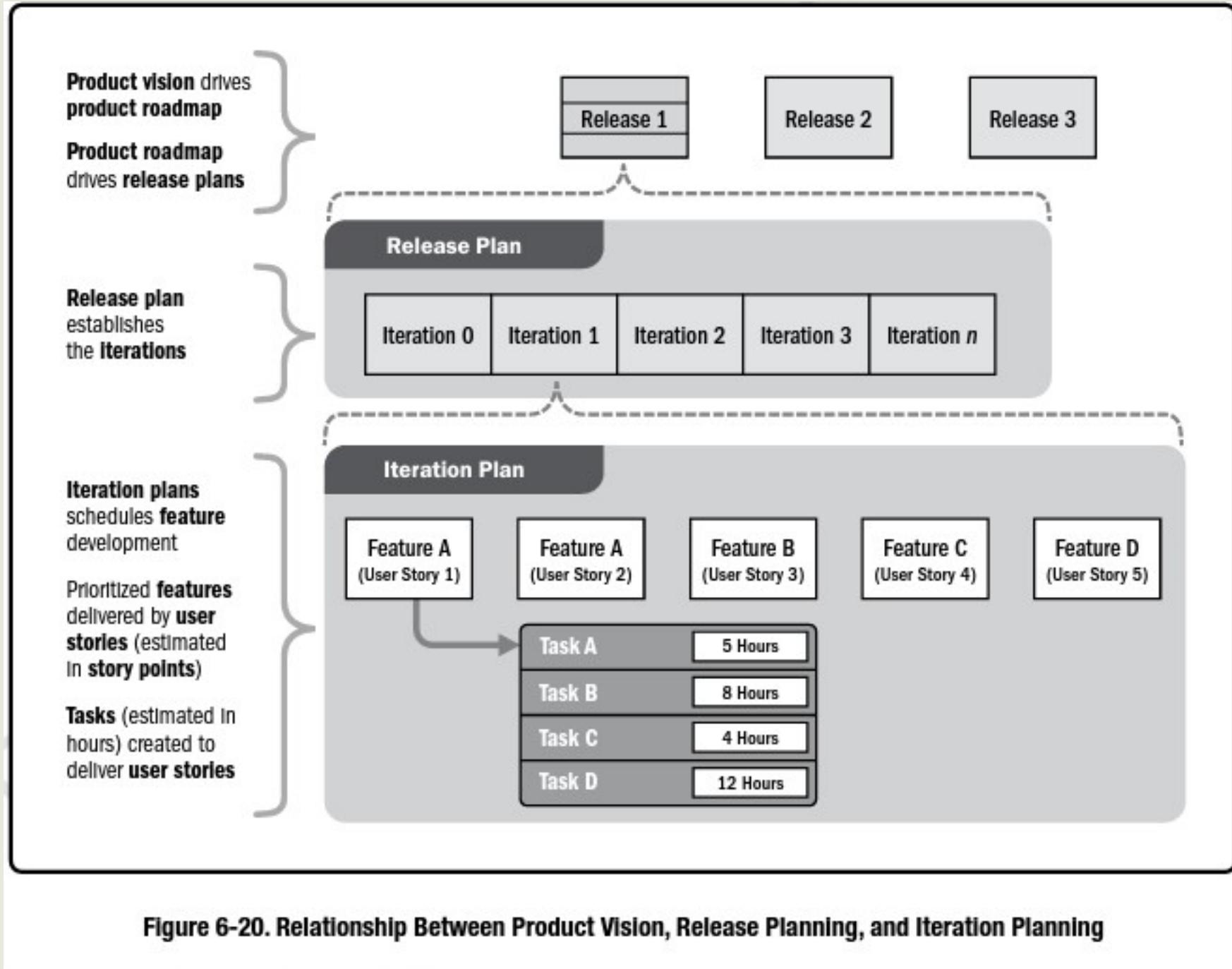
- Story map with timing of deliverables
- Considers priorities against Developers velocity
- Subject to change as backlog is refined
- With each release the product becomes more robust

1st release

2nd release

3rd release





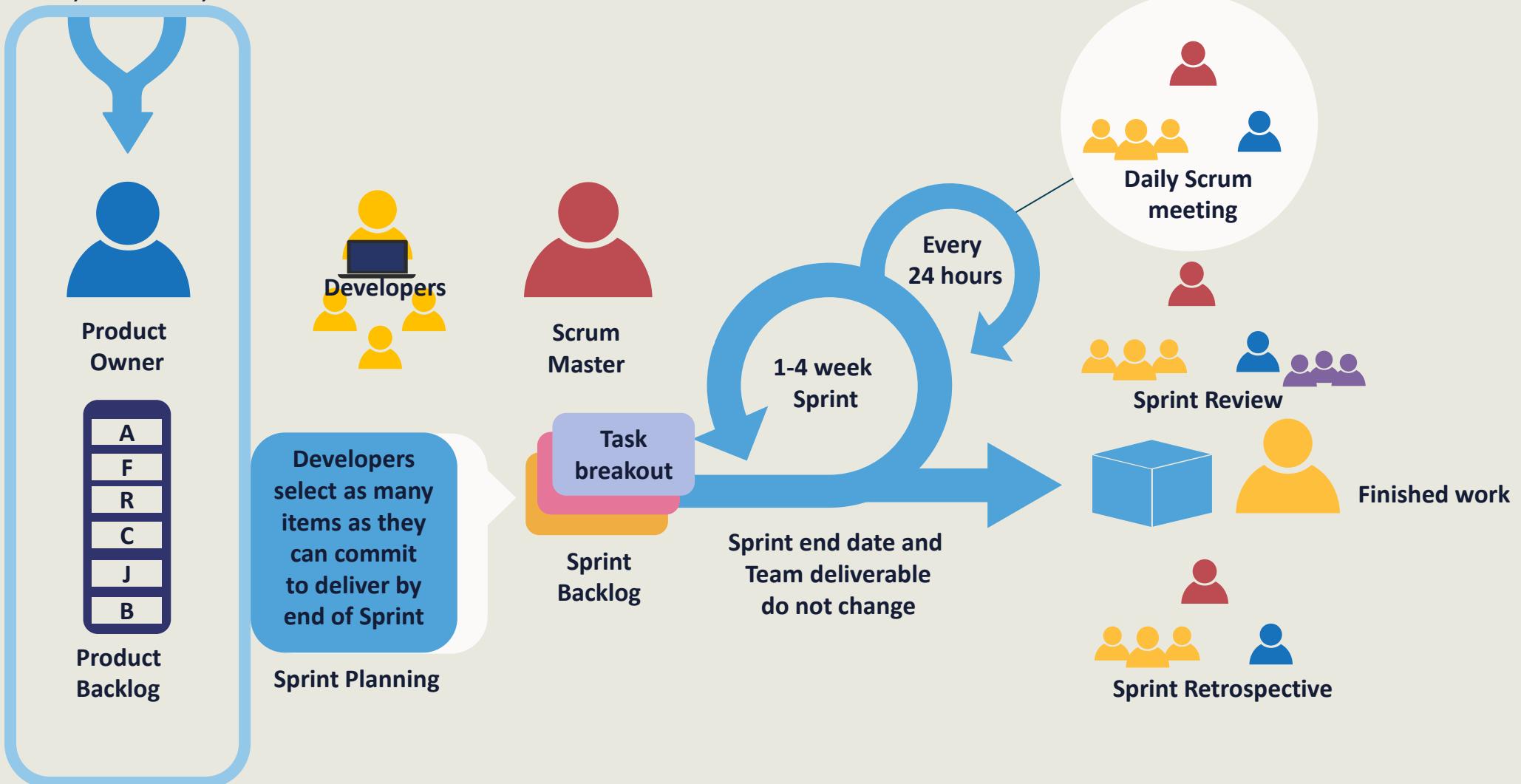


LEVELS OF PLANNING

ITERATION PLANNING

SCRUM FRAMEWORK

Inputs from Executives, Team, Stakeholders, Customers, and Users



Product and Iteration Backlogs

Product backlog

- ✓ Change throughout the project.
- ✓ Groom and refine the product backlog continually; weekly or monthly intervals are typical.
- ✓ Remove product backlog items (PBIs) as work is completed.
 - Edit and clarify PBIs as more becomes known or as product requirements change.
 - Add PBIs when more work must be done.

A product backlog is a list of the expected work to deliver the product.

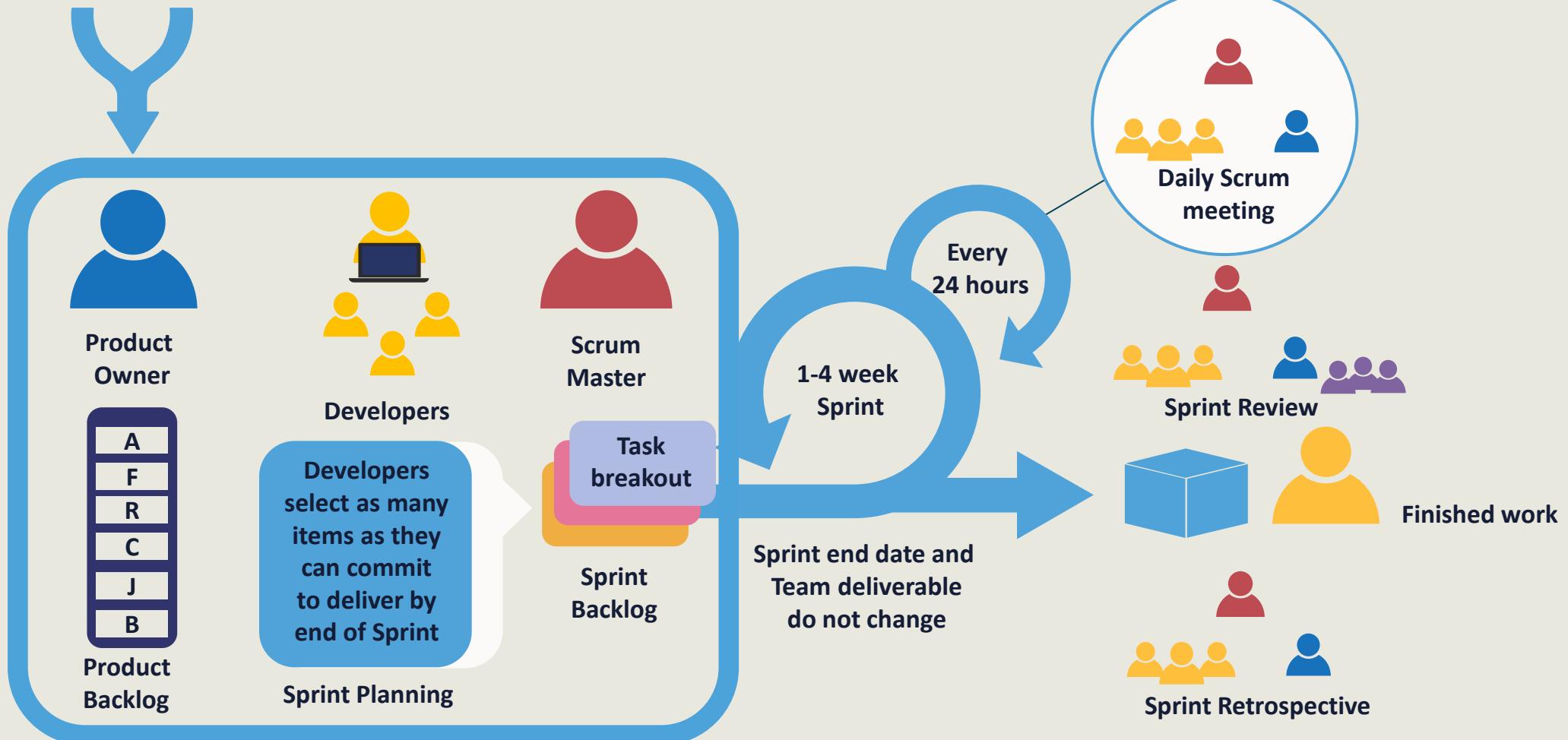
Iteration backlog

- ✓ Teams must estimate effort and understand business priorities.

Iteration backlogs include items from the product backlog that can conceivably be completed within the time period based on the team's capacity.

SPRINT PLANNING

Inputs from Executives, Team, Stakeholders, Customers, and Users





Cycles and Timeboxes

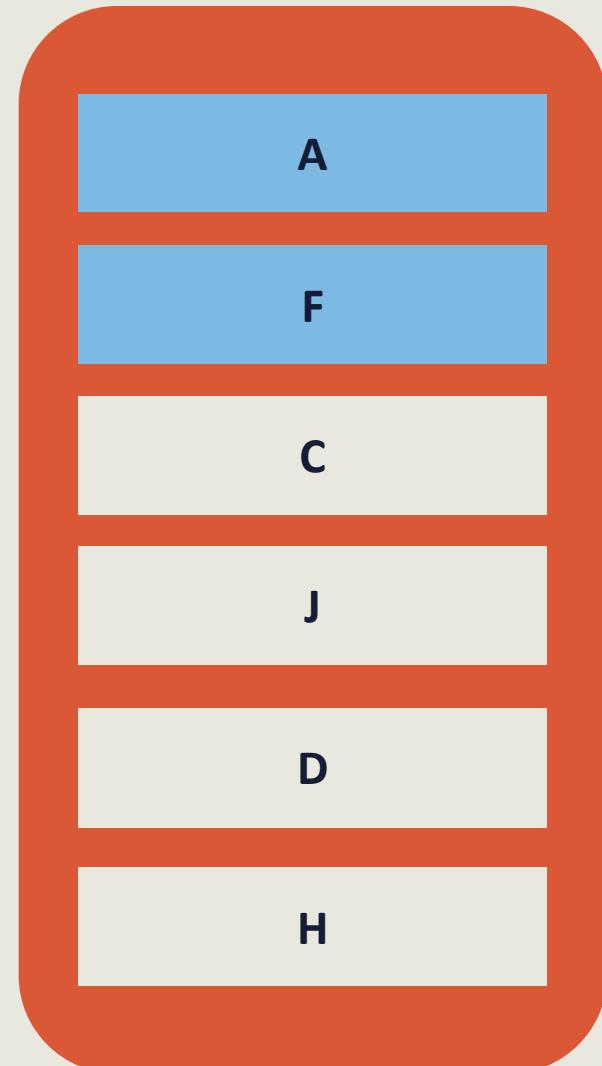
Benefits:

- ✓ Timeboxes allow for **better telemetry** over time.
- ✓ Timeboxes create a **sense of urgency**.
- ✓ Cycling the project through similar timeboxes provides **progress measurements** from one timebox to the next.
- ✓ Teams gain more **predictable measurements** that can communicate expectations of cycle times, throughput, and velocity.
- ✓ Organize work into **release cycles** and working **time blocks**.

SPRINT PLANNING

- Includes all Scrum Team members
- Product Owner presents the updated backlog
- Developers estimate the work
- Work is selected from the product backlog to create the Sprint backlog.
- Developers commit to a set of deliverables for the Sprint
- Establish a “Definition of Done”
- Typically 2 hours per week of Sprint

Product
Backlog



A photograph showing three people in a modern office environment. A woman with blonde hair is on the left, holding a white paper. In the center, a man with dark hair and a beard is sitting at a desk with a laptop, looking towards the right. On the right, a man with dark hair is standing and gesturing with his hands while speaking. They appear to be engaged in a collaborative discussion. The background features a large brick wall.

SELF-ORGANIZED AND SELF-MANAGING TEAM

- Developers decide how they will be organized
- The Developers play a strong role in the selection of new team members
- This is also true for multiple teams working together
- Self-organization benefits:
 - Personal accountability
 - Commitment
 - Innovation and creativity



CROSS-FUNCTIONAL DEVELOPMENT TEAM

- There is a balance of skills among the developers
- Every necessary skill and competency is represented
- “Developer” is a generic term. It includes every person who contributes to the “Done” product increment
- Borrowing team members can be disruptive
- Teams are organized around the project
- Team members may change
 - Consider the impact on productivity
 - More of an exception



T-Shaped Skills

Agile teams invest in becoming more cross-functional.

Leveraging all team members to help accomplish the team goals improves:

- ✓ The team's efficiency
- ✓ The likelihood of achieving objectives

Breadth of knowledge

Depth of knowledge



Course: Engaging Team Members and Stakeholders (2021 Update)
Video: Team Member Skill Sets (3:54 run time)

More
about...

Team Member Skill Sets



ROLES DURING SPRINT PLANNING

Product Owner

- Presents the updated product backlog
- Answer questions about the backlog items
- Provide clarification on user stories
- Reprioritize backlog as appropriate
- Assist with defining Done



Developers

- Ask clarifying questions about backlog items
- Select items from the backlog
- Estimate the work
- Negotiate with the Product Owner
- Commit to a set of deliverables
- Assist with defining Done



Scrum Master

- Maintain Scrum best practices
- Adhere to the meeting time block
- Understand capacity of the Developers
- Assist with defining Done

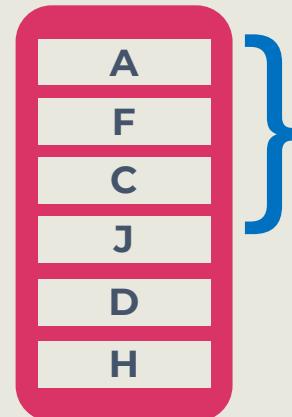


DECOMPOSING THE WORK

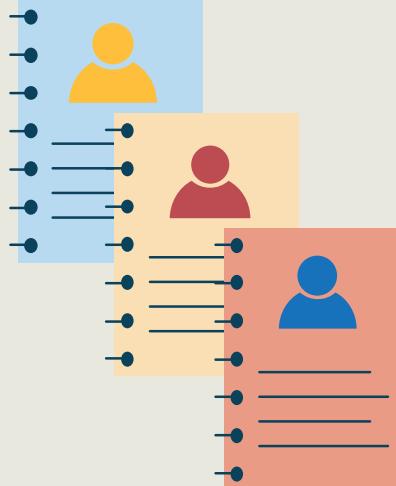
- Decompose the work for no more than 2 Sprints
- The Developers will decide how to approach the work
- User stories with uncertainty may not be decomposed into tasks right away

Prioritized Features
“User Story Backlog”

Product backlog



User stories



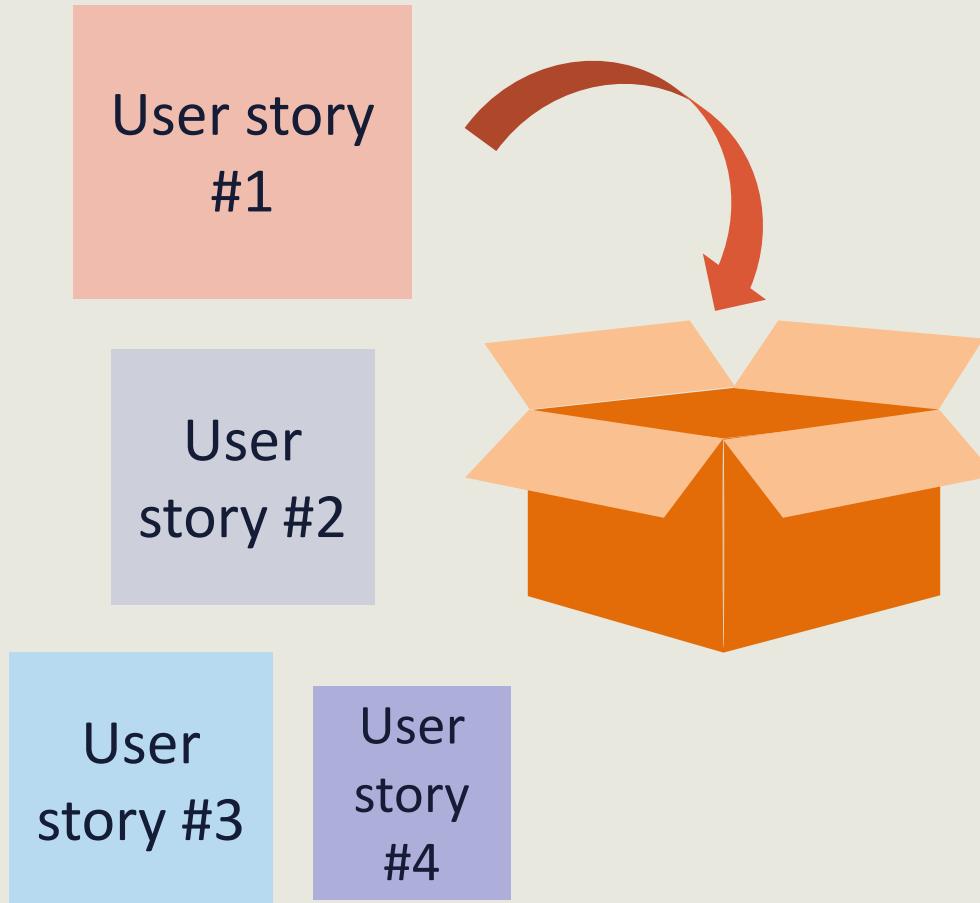
Tasks



One feature may equal one or more user stories.

TIME BOXING

- Each Scrum event has maximum time allotted
 - Ex: 2-week Sprint
- User stories are estimated
 - Planned into the iteration
 - If it doesn't fit it has to wait
- Tool for completing work



FACTORS IN ESTIMATING



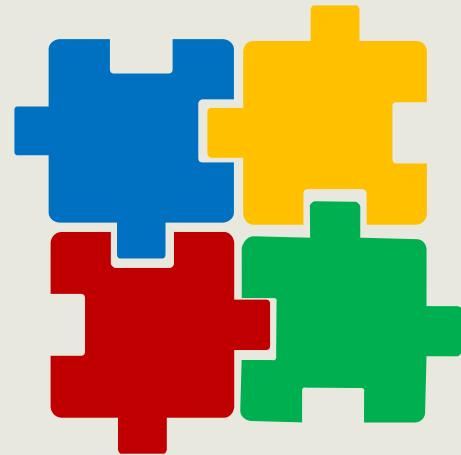
Volume of work

How much effort?



Uncertainty

How risky is the work?



Complexity

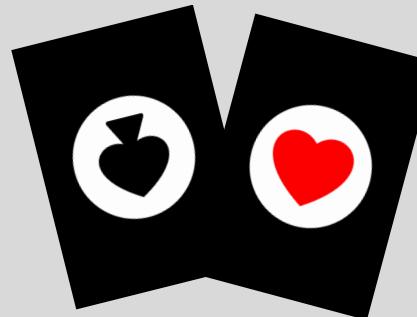
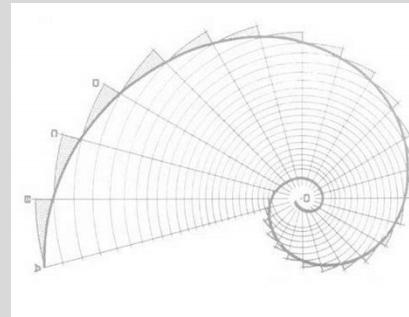
How complex is the work?

Estimation Techniques

Planning poker estimates effort or relative size of development effort. Use a deck of cards with modified Fibonacci numbers to vote on user stories. Also called **Scrum poker**.

Story Pointing

Use a relative measure e.g. numbers in the Fibonacci sequence—for the level of difficulty or complexity of a feature. Individuals assign story points.



RELATIVE SIZING

Quick and easy technique

Absolute value not considered

T-shirt sizing

- Sizes instead of numbers





AGILE ESTIMATING TECHNIQUES

Story points

- Relative estimation
- Arbitrary measure
- Usually used by scrum teams
- Express effort required to implement a story
- 3 items taken into consideration: level of complexity, level of unknowns, effort to implement.

STORY POINTS

Relative sizing

- We aren't good at absolute estimate
- We are better at relative estimates

Not tied to days, hours, or dates

- Removes pressure or emotion

Based on quantity of work, not speed - Unique to a team

- Not comparable to the work of other teams
- Removes competition between teams

Reference for future estimates

Reserves and buffers are not necessary



While story points is the most commonly used metric, teams may choose any unit to represent work.

PLANNING POKER



- Uses Fibonacci sequence
- Each player receives a deck of cards
- Facilitator reads a user story
- On the count of 3, everyone shows their estimate
- Purpose is to build consensus
- Close to consensus, move on and round to higher number
- Scattered estimates, discuss and estimate again
- Estimates are approximates

Spotlight Video: Planning Poker



TEAM VELOCITY

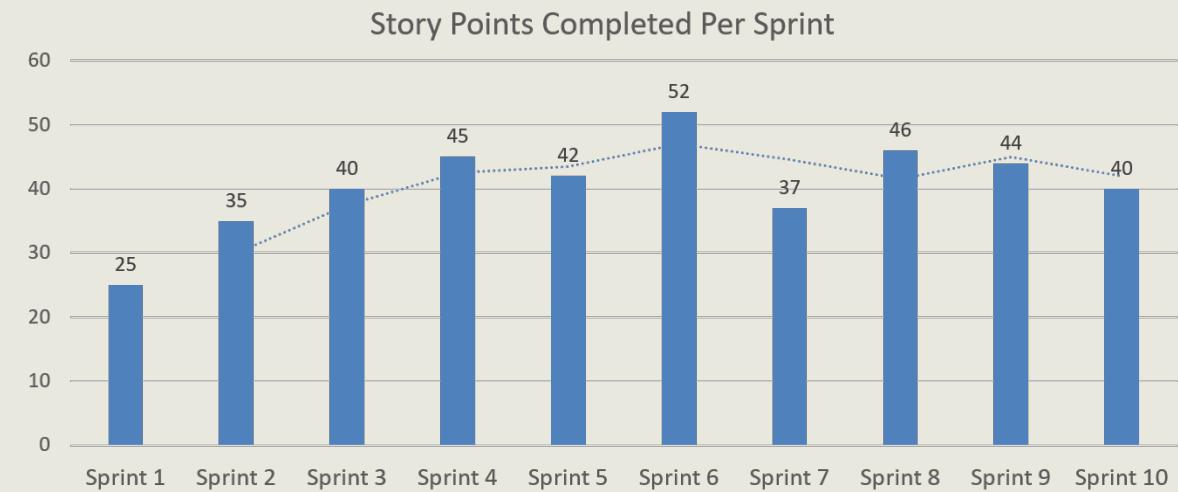
Velocity:

- Actual amount of development work completed per a certain amount of time or time-box
- Usually measured using a sprint as the time-box
- Used to estimate how quickly a certain amount of work can be completed
- Expressed as points (typically)
- Useful for forecasting

Use historical velocity data and take an average

If first time:

- Historical value from other projects
- Run a few iterations for a baseline



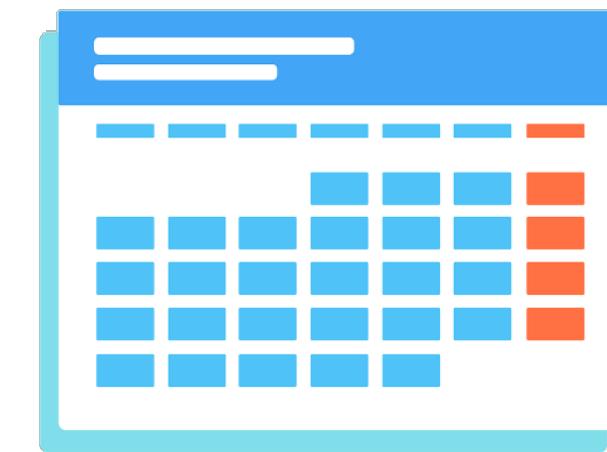
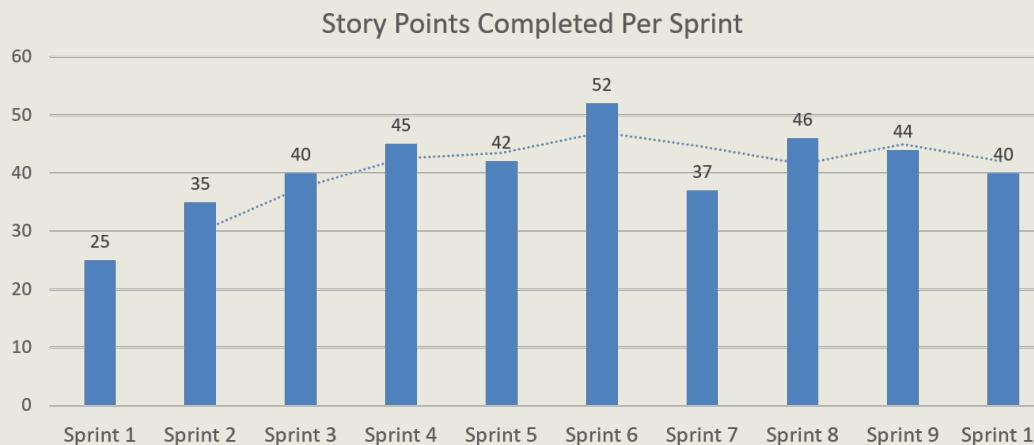
VELOCITY

VS

CAPACITY

Velocity is based on story points achieved historically

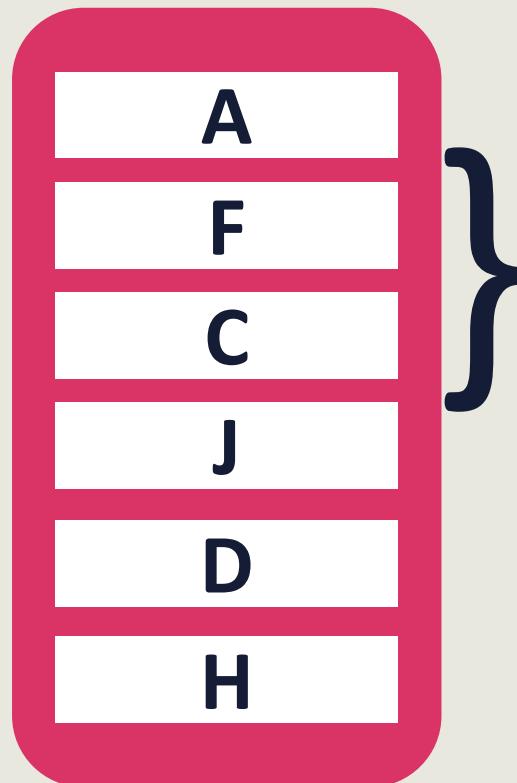
Capacity is based on team's availability to do the work



SPRINT BACKLOG

- Belongs to the Developers
- Subset of the product backlog
- Used to achieve the goal for the current Sprint
- Highly detailed and visible
- The Developers decide how to approach and select the work
- Developers hold themselves and each other accountable
- Although tasks are divided, each Sprint backlog item is owned by the entire group
- May need to be renegotiated with Product Owner in order to meet the Sprint Goal

Sprint Backlog



Development Team

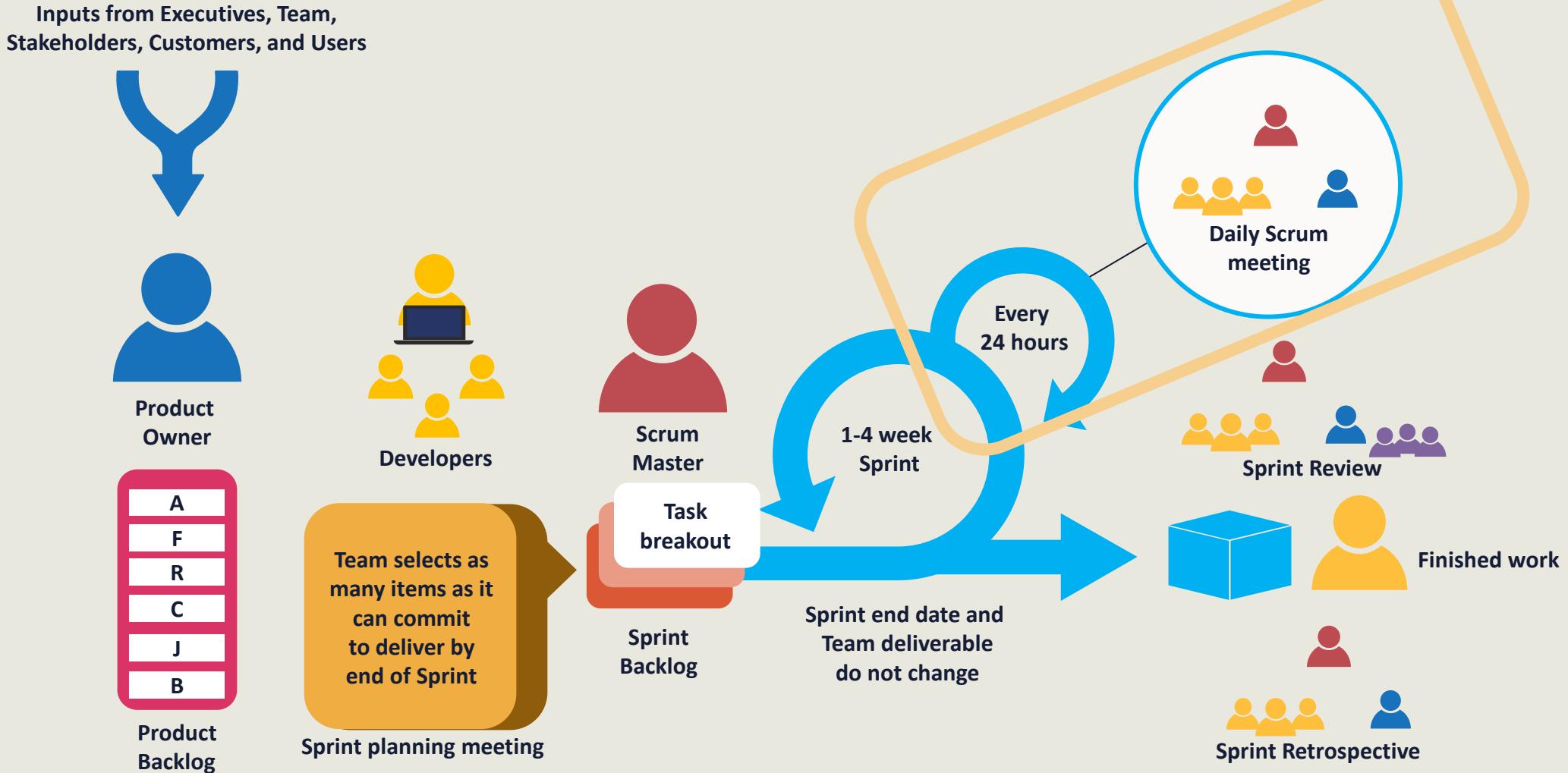




LEVELS OF PLANNING

DAILY PLANNING

DAILY SCRUM OR STAND-UP





Daily Standup

- ✓ Conducted at a designated time (in the team “ground rules”).
- ✓ Mandatory attendance of everyone in the Sprint.
- ✓ During the meeting, answer:
 - What's been done since the last meeting?
 - What needs to be done before the next meeting?
 - What does anyone need help with?

DAILY SCRUM

“What did I do yesterday?”
“What will I do today?”
“What are my roadblocks?”

- The Daily Scrum is held at the same time and same place each day
- The routine keeps things simple
- Although it is also known as the “Daily Standup”, team members are not required to stand
- Inspect and adapt Sprint backlog
- Identify progress and remaining work against the Sprint goal
- Typically 15 minutes or less
- Reserve off-topic subjects for a separate discussion
- Developers own this event
- Scrum Master and Product Owner presence is helpful but not required



ROLES DURING THE DAILY SCRUM

What about upper management outside of the Scrum Team?

Scrum Master

- Promotes Scrum best practices
 - Stick to the time box
 - Team values
- Removes impediments
- Coaches the team
 - Problem solving
 - Roles and responsibilities
- Serve as a buffer for the team
- Attendance not required



Product Owner

- Explains the value of each backlog item
- Must be easily accessible
- Answer questions
- Provide clarification
- Seek additional clarification from stakeholders
- Last minute reprioritization
- May cancel a Sprint
- Attendance not required



Developers

- Lead the conversation
- Answer three questions
 - What did I do yesterday?
 - What do I plan to do today?
 - Do I have any blockers?
- Inspect daily progress against the Sprint goal
- Ask clarifying questions about the user stories



Task Boards

- ✓ Visualize work and enable the team and stakeholders to track progress as work is performed.
- ✓ Promote visibility and maximize efficiency and accountability.
- ✓ Examples: Kanban boards, to-do lists, procedure checklists, and Scrum boards.

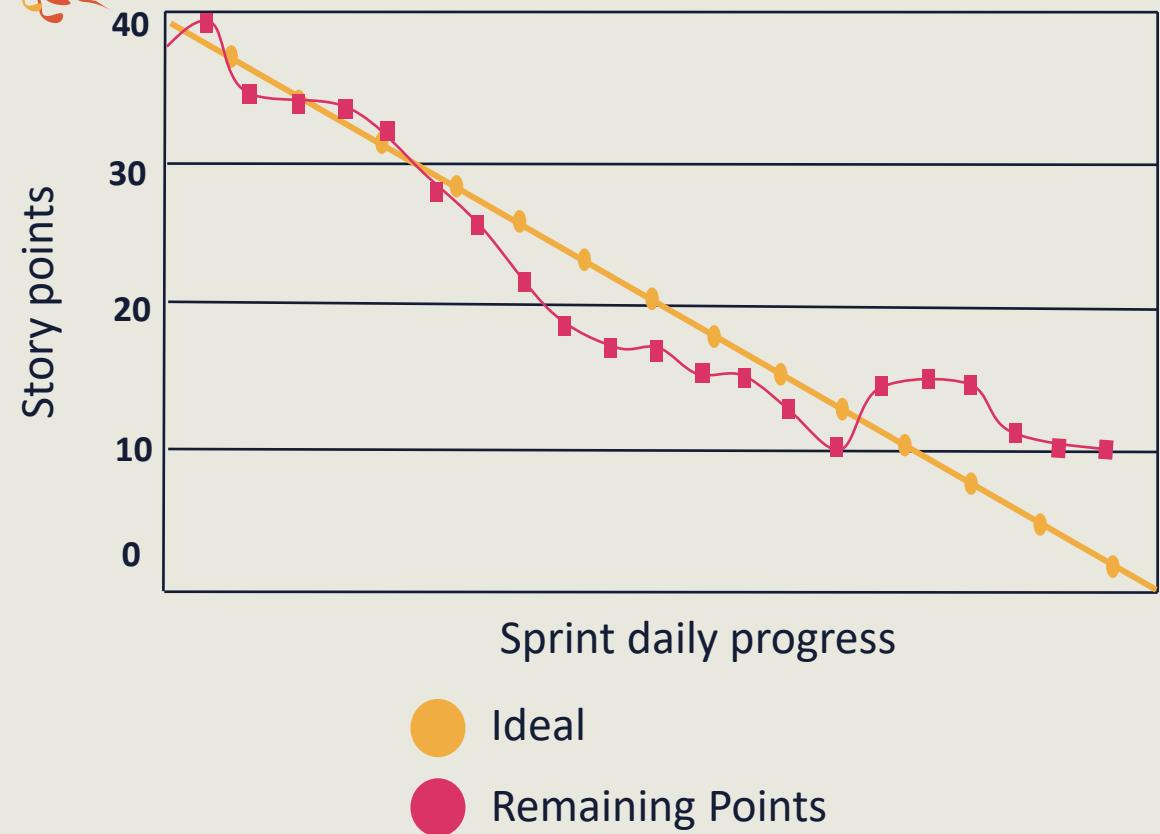
To Do	Work in Progress (WIP)	Done
<p>Item A Estimate: 4</p> <p>Item D Estimate: 2</p> <p>Item E Estimate: 8</p> <p>Item G Estimate: 20</p>	<p>Item C Estimate: 6</p> <p>Item F Estimate: 18</p> <p>Item J Estimate: 1 Unplanned</p>	<p>Item B Estimate: 8 Actual: 8</p>

PERFORMANCE TRACKING: BURN CHARTS

Burndown and burnup charts

“Information Radiators”

- Generic term for a highly visible information display
- Graphs, charts, data dashboard
- Communication tool
- Shows remaining work for the Sprint
- Trend line shows the running average, and what will likely happen if progress continues at this rate



Performance Report Types

Type	Description
Information Radiators	Big visual boards to display in high traffic public locations about the project and the advancement of the project. The aim is to radiate information to all about the project work.
Burndown Chart	A graph to show the progress by plotting the burning down of work during an iteration or other time period.
Burnup Chart	A graph to show the progress and gains made by the project team over time.
Earned Value Management Reports	Graphs and values based on the earned value management (EVM) equations.
Variance Analysis Reports	Graphs and their analysis comparing actual results to expected results.
Work Performance Reports	The physical or electronic representation of work performance information compiled in project documents, intended to generate decisions, actions, or awareness.
Quality Reports	Charts and reports based on the quality metrics collected.
Dashboards	Physical or electronic summaries of the progress, usually with visuals or graphics to represent the larger data set
Task Boards	Physical or electronic depictions of the work that must be done and their current state.



“POTENTIALLY” RELEASEABLE PRODUCT INCREMENT

Complete and Meets:

- Acceptance Criteria
- Definition of Done
- No partial credit seeking

Integration Tested

- Avoids escaped defects

Deliverable Now

- No remaining work, including user instructions, etc.

Reasons the Product Owner might delay release

Costs associated with release:

- Marketing expenses
- Additional customer support
- Customer’s willingness to adapt
- Inadequate Definition of Done

CANCELING A SPRINT

Only the Product Owner can make the decision

- Sprint goal becomes obsolete
- New constraint in the project environment
- Decision is based on value
- Something else is more urgent

Done Work

- Determine if there is enough for a Sprint Review

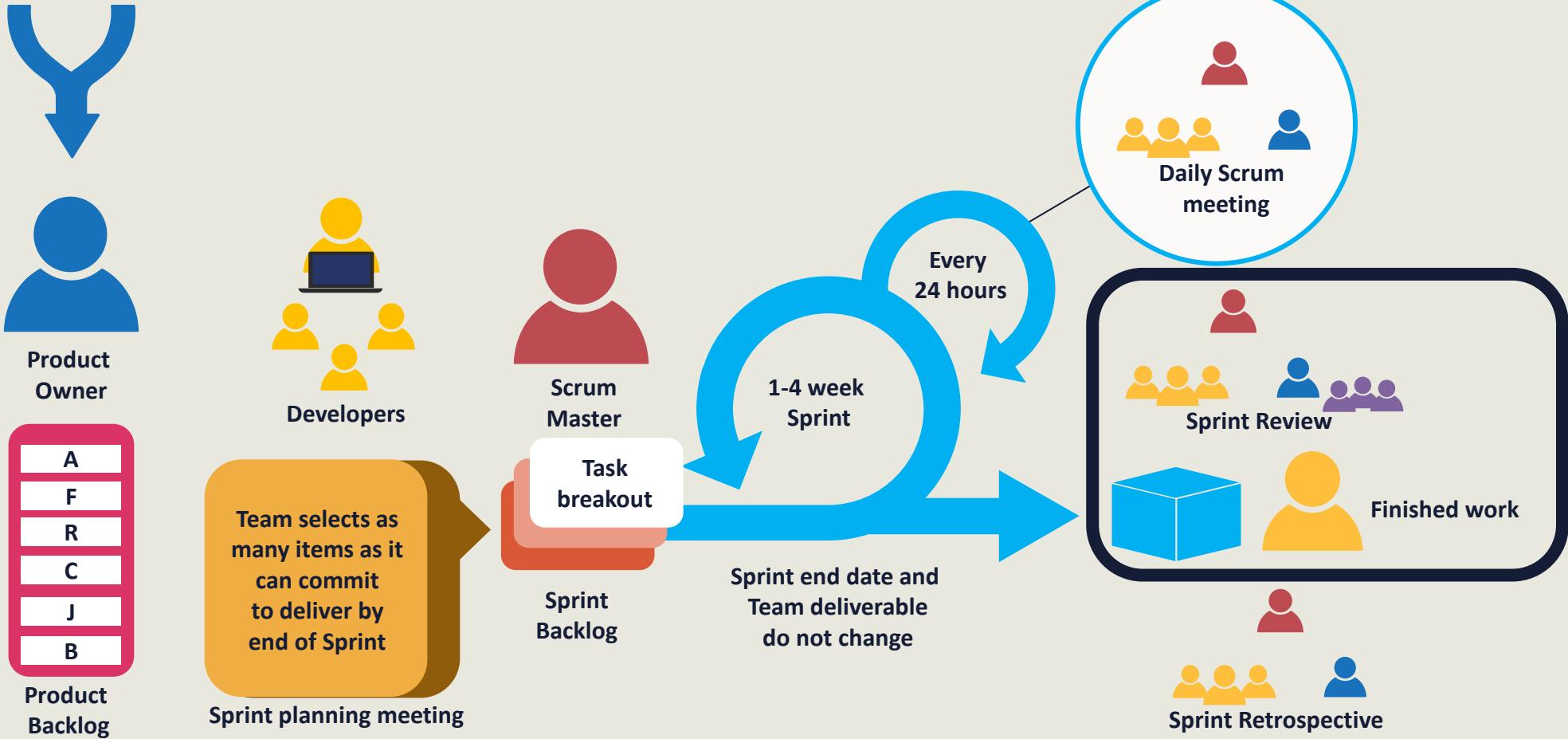
Work in Progress (WIP)

- Re-estimate incomplete work and return it to the product backlog



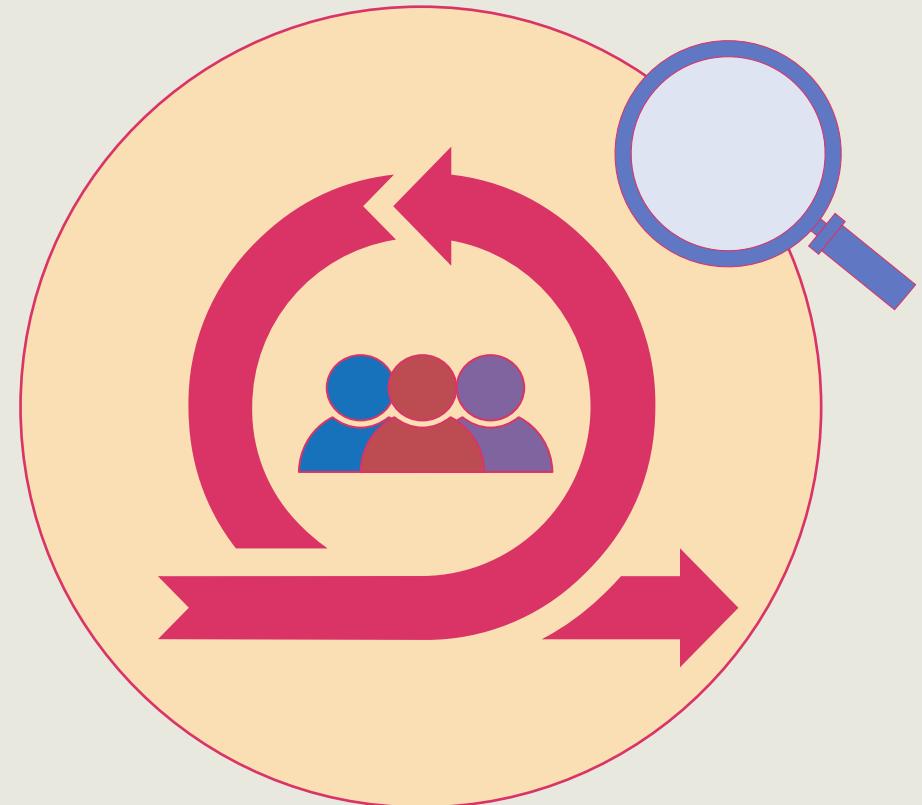
SPRINT REVIEW

Inputs from Executives, Team, Stakeholders, Customers, and Users



SPRINT REVIEW

- Occurs at the end of a Sprint
- Participants
 - Developers
 - Scrum Master
 - Product Owner
 - Stakeholders (invited by Product Owner)
- Developers demos the product to product owner and possibly stakeholders
- Scrum Team and stakeholders inspect deliverables
- Elicit feedback and foster collaboration
- Team and product owner adapt product backlog if necessary
- Typically 1 hour per week of Sprint



ROLES DURING SPRINT REVIEW

Product Owner

- Presents the product backlog
- Explains progress
 - What was completed
 - Planned items that were not done
- Lead discussion of what to work on next



Developers

- Demonstrates new product increment
- Answers questions about the product
- Discuss challenges



Scrum Master

- Facilitates the event
- Promotes adherence to the time box
- Clarify roles and responsibilities



Stakeholders

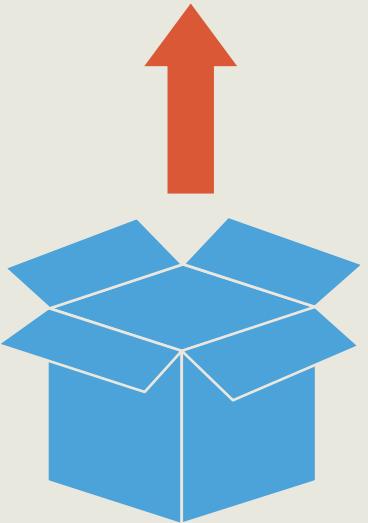
- Invited by Product Owner
- Try the new product increment
- Provide feedback



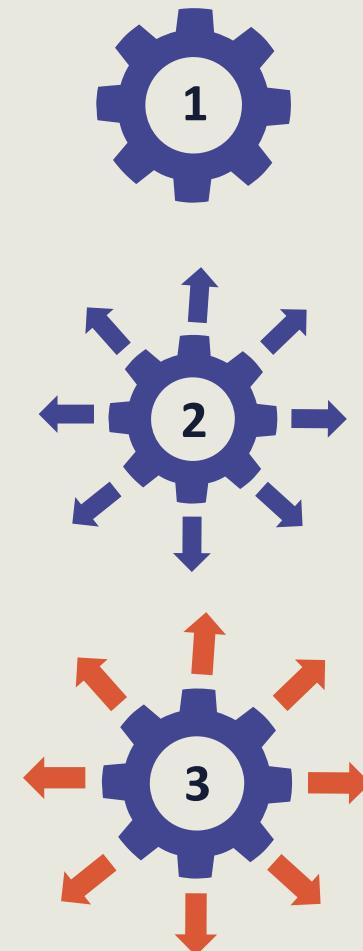
Tools and Techniques for Verifying Scope

Tool and Technique	Description
Definition of Done	Checklist of required criteria for a deliverable to be considered ready for customer use.
Definition of Ready	Checklist for a user-centric requirement with all required information to begin work.
Acceptance Criteria	A set of conditions to meet before acceptance of deliverables.
Iteration Reviews	Interval at or near the conclusion of a timeboxed iteration when the project team shares and demonstrates the work produced during the iteration with stakeholders.
Variance Analysis	A technique for determining the cause and degree of difference between the baseline and actual performance.
Trend Analysis	An analytical technique that uses mathematical models to forecast future outcomes based on historical results.

PRODUCT SCOPE EVOLVES



With each release, the product becomes more robust



Re-Assess Product Backlog

- ✓ Work to be done is also called a product backlog.
- ✓ Use backlog assessments and refinements to explore alternatives to overcome or avoid risks, such as removing work items or blockages.



Continually assess the backlog for potential impediments, obstacles, and blockers.



Evaluate impediments against pending work.



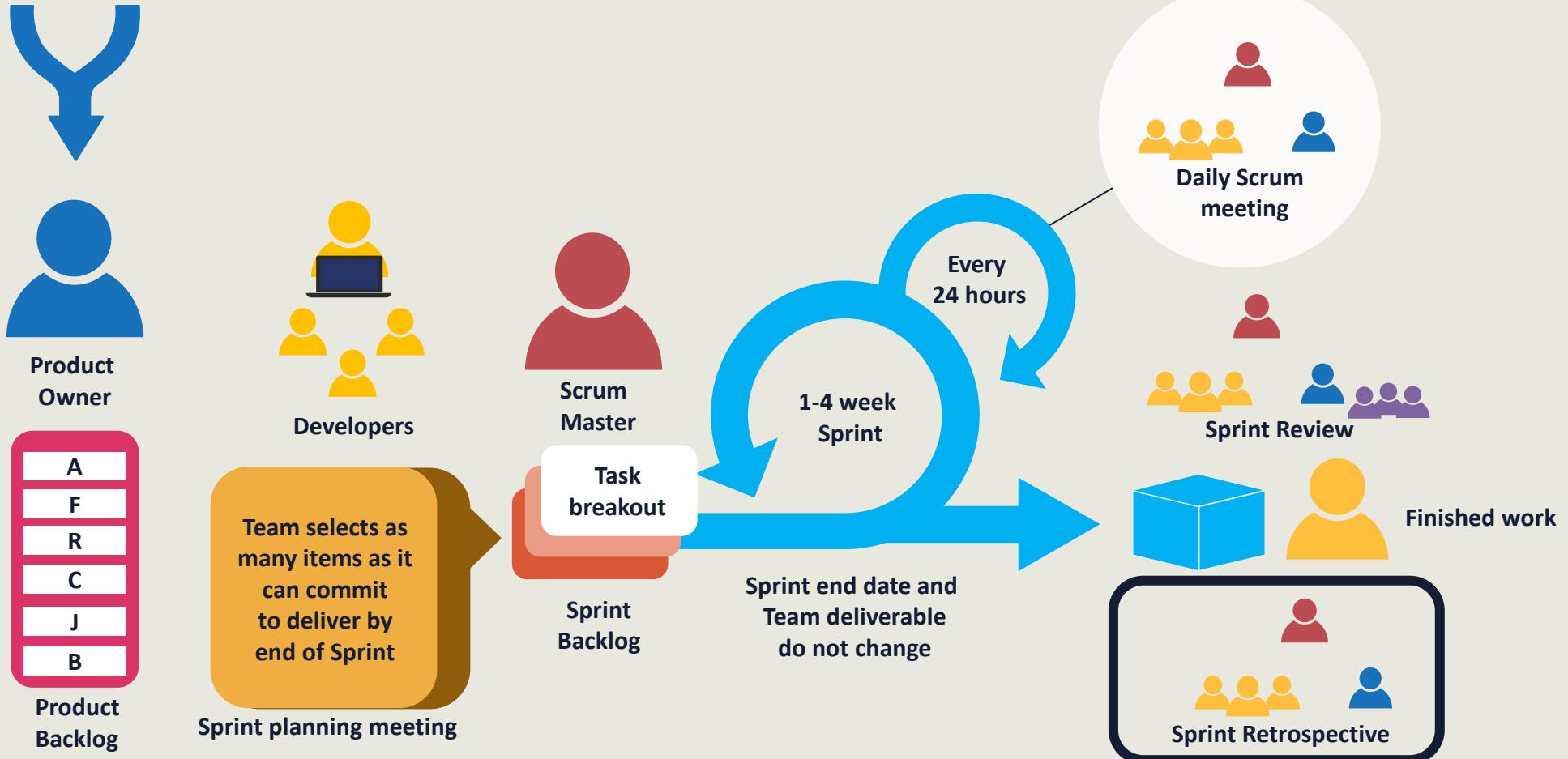
Also assess scheduled activities and other lists of work items.



The team and business stakeholders must assess the work backlog work in terms of value and priority.

SPRINT RETROSPECTIVE

Inputs from Executives, Team, Stakeholders, Customers, and Users



Retrospective

- ✓ A regular check on the effectiveness of quality processes
- ✓ Look for the root cause of issues then suggest trials of new approaches to improve quality.
- ✓ Evaluate any trial processes to determine if they are working and should be continued, need adjusting or discontinued.



SPRINT RETROSPECTIVE

Participants

- The Scrum Team
 - Developers
 - Scrum Master
 - Product Owner

Evaluate the last Sprint

- People
- Processes
- Tools

Plan improvements for next iteration

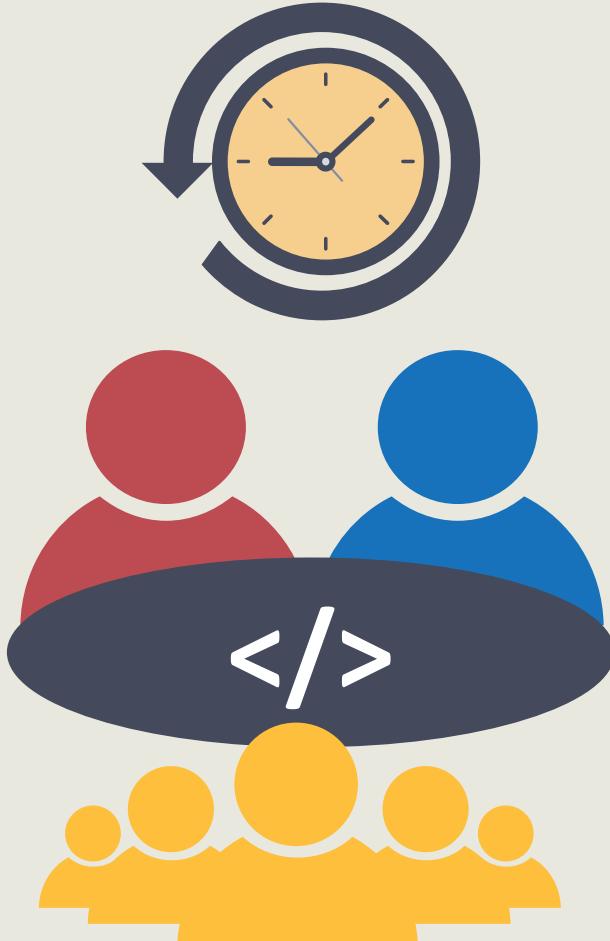
Examples:

Do we need to change our Definition of Done?

Are we communicating well?

Do we need to build any of our skills?

Typically .75 hours per week of Sprint



ROLES DURING THE RETROSPECTIVE

What about upper management and stakeholders outside of the Scrum Team?

Scrum Master

- Promotes Scrum best practices
 - Stick to the time box
 - Reminder of team values
- Facilitates the meeting
- Introduces team-building exercises
- Guides problem solving and goal setting
- Participates in the discussion
- Commits to continuous improvements



Product Owner

- Attends as a member of the Scrum Team
- Participates in the discussion
- Commits to continuous improvements

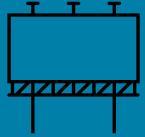


Developers

- Attend as members of the Scrum Team
- Participates in the discussion
- Commits to continuous improvements



How To Conduct a Retrospective



Set the Stage

Check-in activities to engage the team



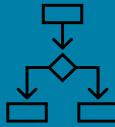
Gather and Share Data

- ✓ Team Performance metrics
- ✓ Earned Value Analysis



Generate Insights

- ✓ What's working?
- ✓ Where are challenges?
- ✓ Problem analysis



Make Decisions

Agree on a few improvements or changes to try in the subsequent iteration

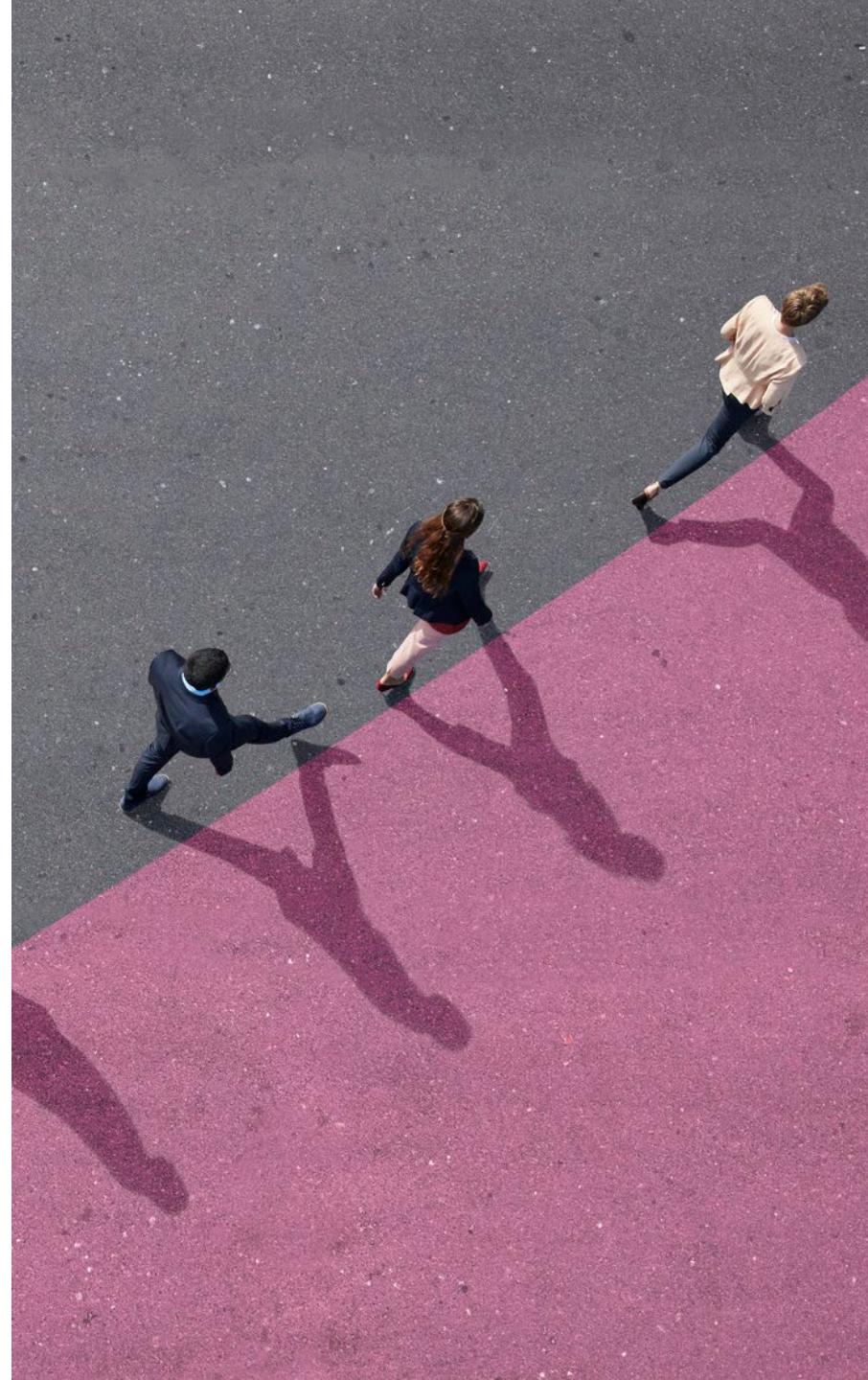


Close

- ✓ New information
- ✓ Appreciation
- ✓ Thanks

Implement Results of Retrospectives/Lessons Learned

- ✓ **Rank** the opportunities by importance and urgency.
- ✓ **Incorporate tasks necessary** to realize the improvements.
- ✓ **Apply ideas** to the team environment.



BOOTCAMP DAILY SURVEY



LOOK FOR THE SURVEY LINK IN THE CHAT

Our goal is to provide the best possible Bootcamp experience for a live streaming webinar, with hundreds of participants.

For each Bootcamp session,

- Let us know **what you liked** about the experience – your comments really matter.
 - Please include a thank you **to the mentor(s)** working off camera.
- If you have **recommendations**, share those too!

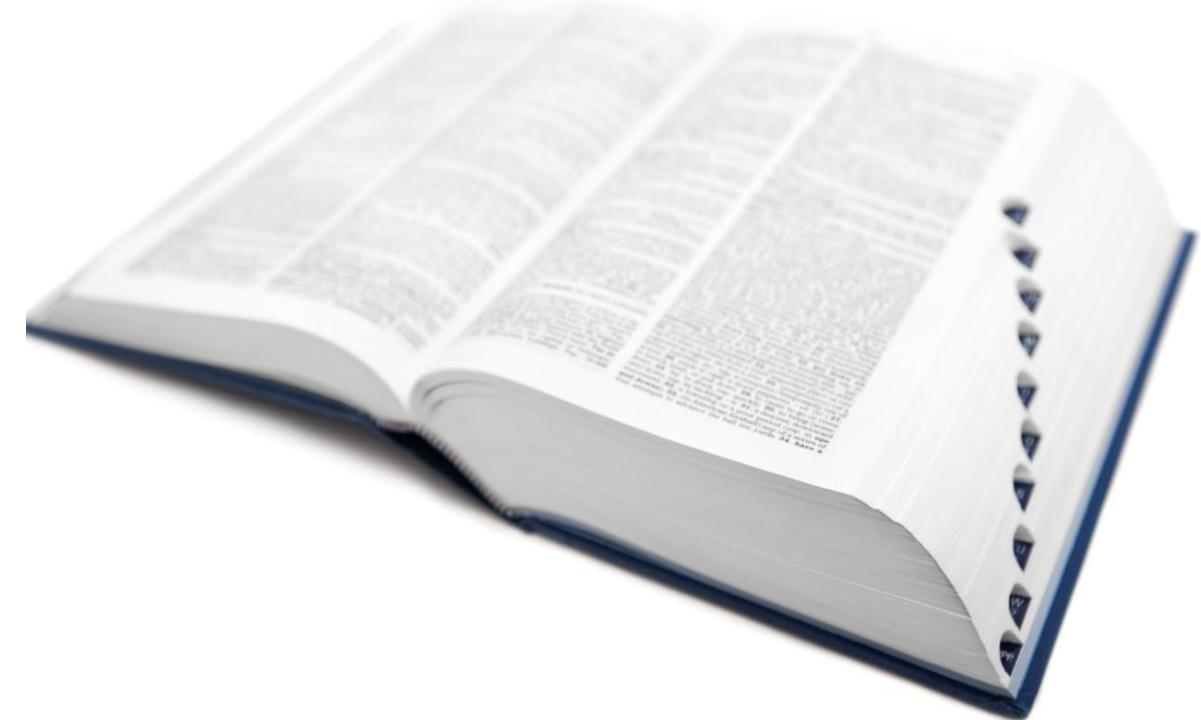
We sincerely value your opinion!

A desk lamp with a warm, glowing light is positioned on the left side of the frame, casting a bright beam of light onto a dark, textured surface. The lamp has a black base and a flexible, adjustable arm holding a conical shade. The background is a solid, dark gray.

Additional Resources

VOCABULARY

FROM TODAY'S SESSION



Product Roadmap



DEFINITION

A strategic document and plan which guides why the product will be delivered and how the product will meet objectives and the product vision.

Minimum Viable Product (MVP)



DEFINITION

The smallest collection of features that can be included in a product for customers to consider it functional ("bare bones" or "no frills" functionality in Lean).

Minimum Business Increment (MBI)



DEFINITION

In Disciplined Agile - the smallest amount of value that can be added to a product or service that benefits the business.

Value Stream Map



DEFINITION

A lean enterprise technique used to document, analyze, and improve the flow of information or materials required to produce a product or service for a customer.

Daily Standup (Daily Scrum)



DEFINITION

A brief, daily collaboration meeting in which the team reviews progress from the previous day, declares intentions for the current day, and highlights any obstacles encountered or anticipated.

Overview - Agile Ceremonies

