

COURSE CONTENT

- δ Overviews
- δ Software Lifecycle
- δ Requirement and Specifications
- δ Design: Architecture and Modularity
- δ Implementation
- δ Testing
- δ Deployment
- δ Conclusion

Agile model: SCRUM

- δ Overviews
- δ SCRUM values
- δ SCRUM roles
- δ SCURM activities

SCRUM

Plan , Build, Learn, ... Repeat

**Define
Design
Build
Test**

**Define
Design
Build
Test**

**Define
Design
Build
Test**

...

1 - 4 weeks

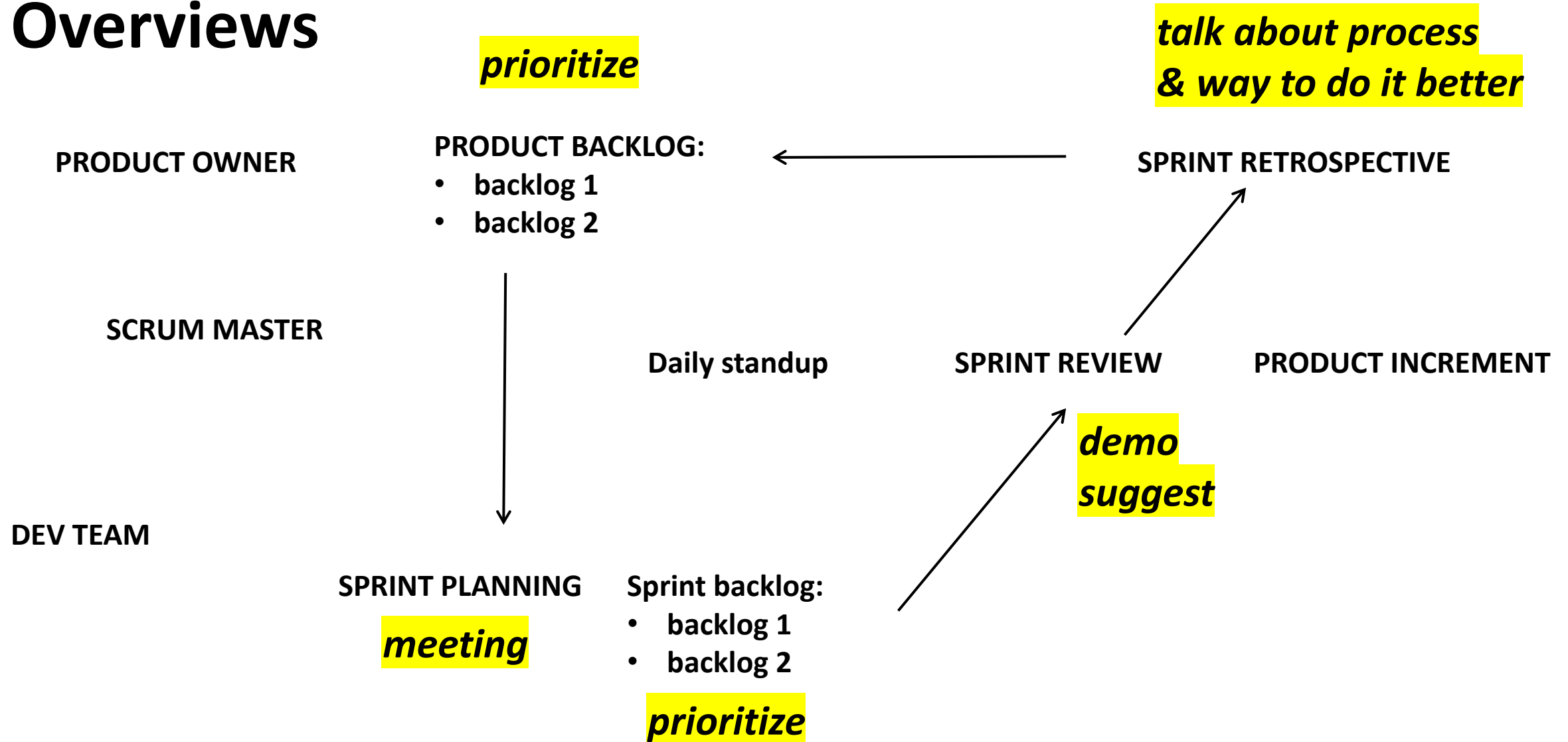
Overviews

Sprints: The idea of quick development, adding in the highest priority features, then going to clients/stakeholder (everyone involved), taking feedback, and redoing the cycle

3rd - 4th sprint: probably released product and start making money

Roles: Product Owner (what need to be done and how), Scrum Master (hold the team, facilitate meeting, deal with conflict), Dev Team (engineers, designers, testers,...)

Overviews



Overviews

connect to stakeholders
vision | analyse

PRODUCT OWNER



create

PRODUCT BACKLOG:

- backlog 1
- backlog 2

SPRINT RETROSPECTIVE

SCRUM MASTER

maintain SCRUM
tech and facilitate

Daily standup

SPRINT REVIEW

PRODUCT INCREMENT

DEV TEAM

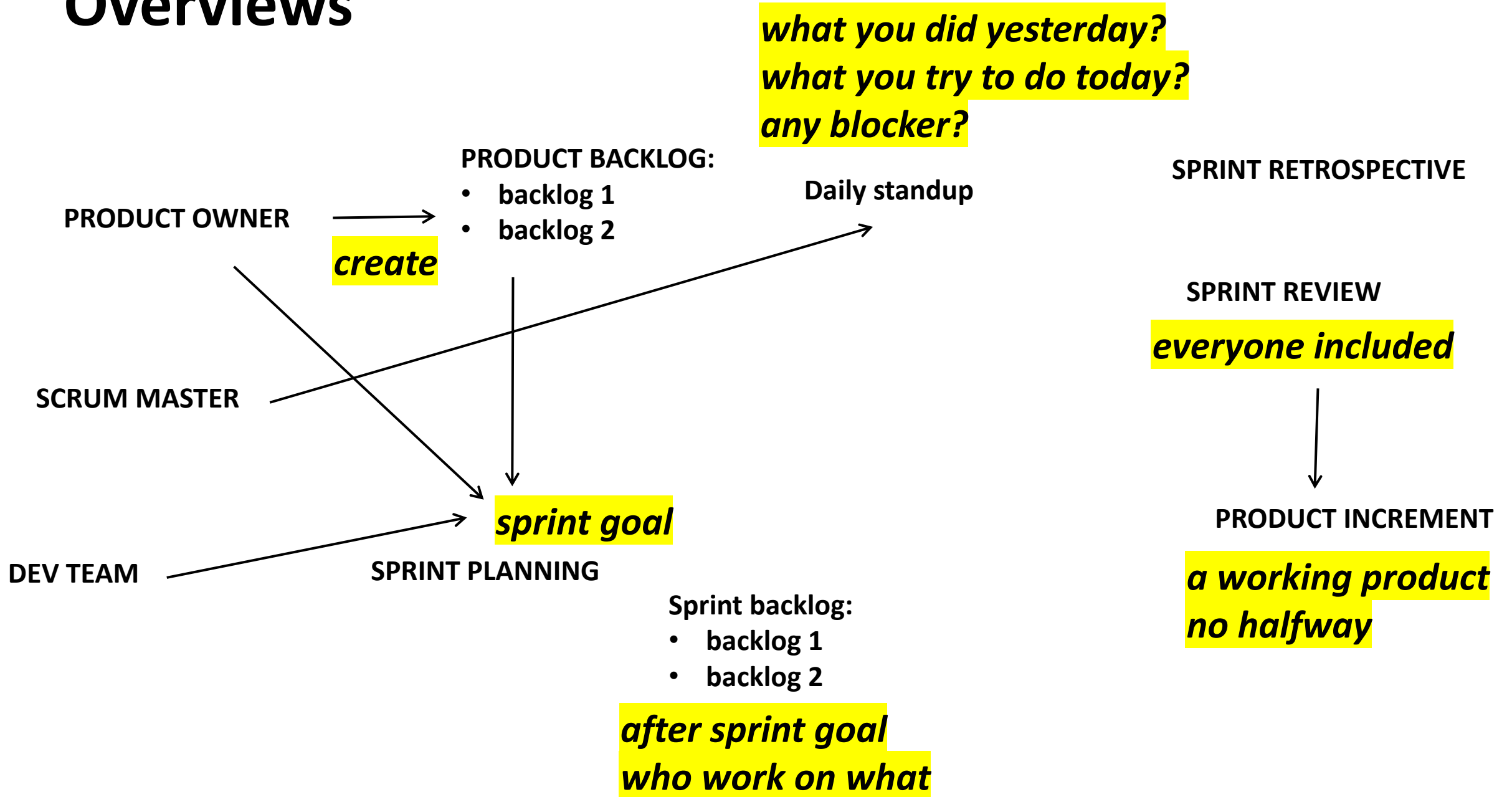
SPRINT PLANNING

Sprint backlog:

- backlog 1
- backlog 2

flexible tools
3-9 ppl

Overviews



SCRUM VALUES

ARTIFACTS

SPRINT BACKLOG | PRODUCT BACKLOG | PRODUCT INCREMENT

ROLES

PRODUCT OWNER | SCRUM MASTER | DEV TEAM

EVENTS

SPRINT PLANNING | DAILY SCRUM | SPRINT REVIEW | RETROSPECTIVE

VALUES

FOCUS | RESPECT | COMMITMENT | COURAGE | OPENNESS

PILLARS

TRANSPARENCY | INSPECTION | ADAPTATION

SCRUM VALUES

- δ FOCUS: focus on the work of the sprint and the goals of the team
- δ RESPECT: respect each other to be capable at their jobs and responsibilities
- δ COMMITMENT: personally commit to achieve the goals of the scrum team
- δ COURAGE: courage to do the right thing and work on tough problem
- δ OPENNESS: open and transparent about all work and challenges

Maximize the value of the product

Product owner

STAKEHOLDERS

SCRUM TEAM

Responsibilities:

- Maintains open healthy product backlog
- Answers product related questions
- Communicate with everyone
- Manage budget and release dates
- Ensure the value of the team
- Provide feedback at various levels
- Respect commitments

Facilitate SCRUM

Scrum master

Responsibilities:

- Set up all SCRUM meetings
- Set up daily standup
- Removes blocks for the team
- Keep the team happy
- Ensure SCRUM values
- Encourage collaboration
- Is the coach, mentor, guide

note: *in some cases, scrum master can be lead developer, who work part-time scrum master*

Dev team

Responsibilities:

- Collab with product owner to create and refine user stories
- Writing code, and tests to fit expectations
- Conducting research, design and prototyping
- Is the coach, mentor, guide
- Help making decisions based on architectures, designs, etc.
- Help develop and maintain current iteration

note: *the dev team is self-organizing, do everything in their responsibilities by themselves*

Product Backlog

A prioritized set of work for the dev team that is created from the vision and its requirements

	Items	Description	Est	By
Very high	1	Organize source code for team	8	Andrew
	2	Finish database setup	8	Matt, Cindy
	3	Wrap up back-end APIs	120	Dev Team
High	4	Design UI/UX	36	...
	5
	6
Medium	7	Alter icons for a better views	16	...
	8	...		

SUMMARY

Scrum is an agile method that provides a project management framework.

- It is centred round a set of sprints, which are fixed time periods when a system increment is developed.

Many practical development methods are a mixture of plan-based and agile development.

- Scaling agile methods for large systems is difficult.

Large systems need up-front design and some documentation and organizational practice may conflict with the informality of agile approaches

TASK

Suppose your team is working on the project in a sprint based on SCRUM model untill the end of the semester. Draft the product backlog for the sprint. The backlogs should prioritize tasks and indicate roles of team member.

note: *save all of your project documentations for end-term report and submission*