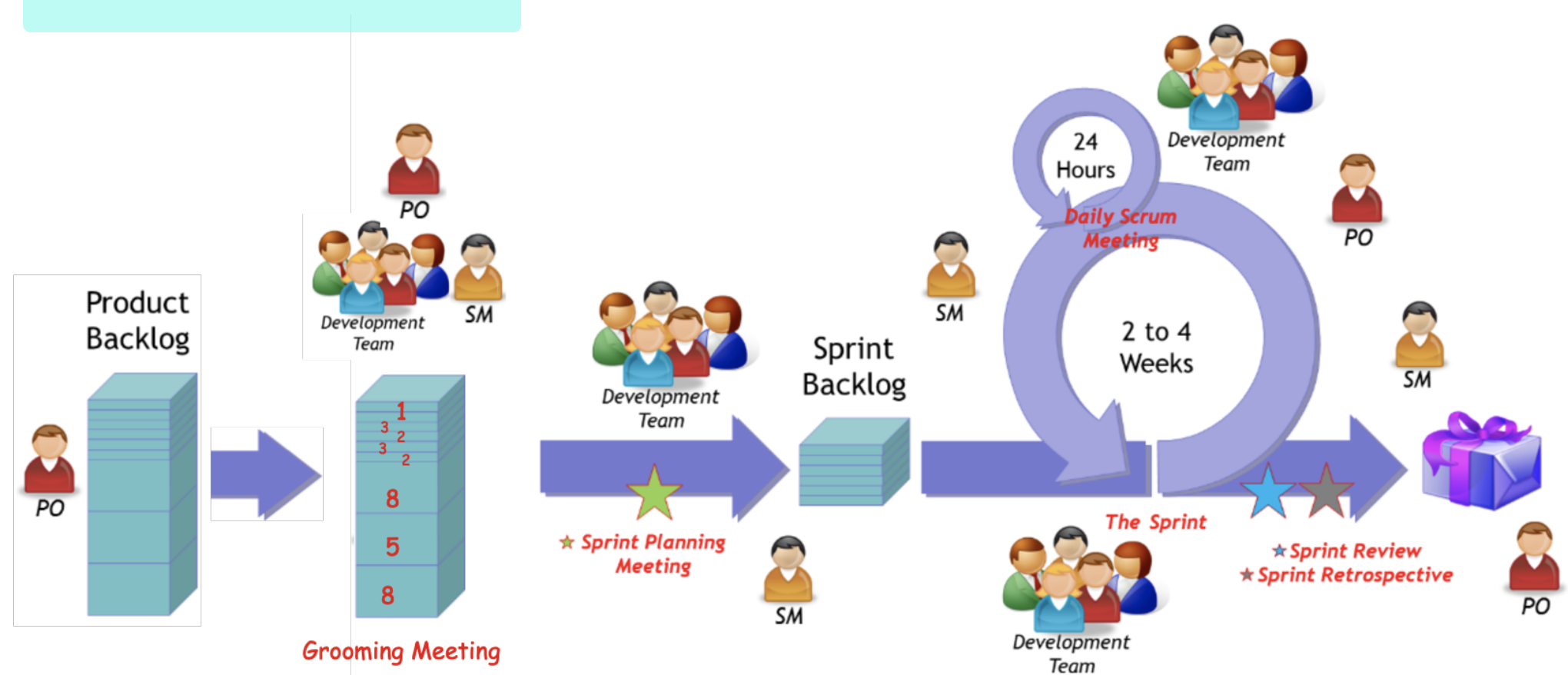


## Scrum Cheat Sheet

### Scrum Process



### 3 - Roles

#### Product Owner (PO)

- Represents client
- Defines all product features
- Responsible for prioritizing product features
- Maintains the Product Backlog
- **Cross responsibility** - Communication

#### Scrum Master (SM)

- Is a facilitator not a manager / Process coach
- Removes obstacles / impediments
- Shields the team from external interference
- Maintains the Sprint Burn down Chart
- Holds daily 15 minute team meeting (Daily Scrum)
- Conducts Sprint Retrospective at the end of a Sprint
- **Cross responsibility** - Scrum process

#### Development Team

- Team is cross-functional and consists of 5-9 people
- Team completes tasks and assignments
- Team is self-organizing and self-managing
- Maintains the Sprint Backlog
- **Cross responsibility** - Delivering value

### 3 - Artifacts

#### Product Backlog - (PB)

- List of all desired product features
- List of User Stories
- List can contain bugs, and non-functional items
- Product Owner responsible for prioritizing and maintaining
- Items can be added by anyone at anytime
- Each item should have a business value assigned

#### Sprint Backlog – (SB)

- List of To-do list for the current Sprint
- Project tasks are pulled from Product Backlog
- Created by the development Team
- Once a Sprint has started no new tasks can be added to the Sprint backlog

#### Burn-down Chart – (BC)

- Chart showing how much work remaining in a Sprint
- Calculated in hours remaining
- Provides visual uncompleted tasks
- Maintained by the Scrum Master daily

### 5 - Meetings / Events

#### Grooming / Backlog refinement

- PO Conducts this meeting
- Attendees – Scrum team
- Happens before starting a sprint
- PO explains the user stories to the dev team
- PO available for questions
- Estimate story points

#### Sprint Planning - 1st day of sprint

- 2 - 8 hours meeting
- Attendees – Scrum team
- Team identify WHICH prioritized task will be worked
- Takes realistic amount of stories based on team capacity
- Team is ready to start the sprint as per Definition of Ready (**DOR**)
- SM starts the sprint

#### Daily Scrum / stand up

- Held every day during a Sprint
- Lasts 15 minutes
- Team members report to each other not Scrum Master
- Asks 3 questions during meeting
  - "What have you done since last daily scrum?"
  - "What will you do before the next daily scrum?"
  - "What obstacles are impeding your work?"
- Opportunity for team members to synchronize their work
- SM shows Burn-down chart to the dev team for reminding the remaining tasks

#### Demo / Sprint Review - last day of the sprint

- 2 - 4 hours meeting
- Attendees –Scrum team, stakeholders and other team members join
- Team has clear Definition of Done (**DOD**) criteria
- Team presents "done" code to PO and stakeholders
- Functionality not "done" is not shown
- Feedback generated - PB maybe re-prioritized with uncompleted tasks

#### Retro / Sprint Retrospective

- 1 - 3 hours meeting
- Attendees – SM and Team. PO is optional
- Questions – *What went well and what can be improved?*
- SM helps team in discovery – not provide answers

### Scrum Terms

#### User Stories

- A very high level definition of what the customer wants.
- The PO should create user stories.
- Each story should match with INVEST criteria.
- User story should be the smallest requirement.
- Each story should have at least one Acceptance Criteria.
- Story Template:
  - As a <User> I want <function> So that <desired result>
- Story Example:
  - As a teacher, I want to upload files so that I can share class materials with students.

#### Story Points

- A simple way to initially estimate level of effort expected to finish a story
- Story points are a relative measure of feature difficulty
- Usually scored with Fibonacci sequence formula:
  - 1,2,3,5,8,13,21
- 1 point can represent 2- 4 - 8 - 12 hours / 1 day
- Example:
  - login to app = 3 points (representing 3 days)

#### Epic

- Epic is a large / big size user stories
- Epic cannot be delivered as defined in one sprint
- PO breaks one Epic to several smaller user stories
- **Example:**
- The blow user story is an Epic cause it takes more then 2-week sprint days:
  - As a user, I want send text message so that I can communicate. - 13 points (13 days)
- PO will divide the Epic to smaller user stories:
  - As a user, I want to send text message to a user so I can chat with one person. 3 points
  - As a user, I want to send text message in a channel so I can chat with a group people. 5 points
  - As a user, I want to send emoji so that it'll be fun. 2 points
  - As a user, I want to edit text style & colors so that I can emphasize main points. 3 points

#### Estimate Team Capacity

- Total availability the dev **team** has for the sprint.
- It can be calculated as hours / days.
- Example for 2 weeks sprint:
- Capacity = numbers of dev team members \* Sprint Productive Days
  - dev team size is 7 (5 dev & 2 QA), sprint total 10 days, 2 days full meetings, 8 days productive days
  - Capacity = 7 \* 8 = 56 days

#### Velocity

- **Total** number of **story points** that can be done in a sprint.
  - calculated for each sprint in Sprint planning meeting.
- Example: in Sprint planning meeting, the team is estimating how many points can be done:
- |                                       |          |
|---------------------------------------|----------|
| dev - Ozzy - I will take 1 day off -> | 7 points |
| dev - Mike - no day off ->            | 8 points |
| dev - Julia - no day off ->           | 8 points |
| dev - Ayse - no day off ->            | 8 points |
| dev - Raul - no day off ->            | 8 points |
| QA - Anton - 2 days off ->            | 6 points |
| QA - John - no day off ->             | 8 points |
- total points: 53 points can be done in this sprint

#### Iterations / Sprint

- Scrum iterations are called sprints.
- A period of time to finish tasks.
- 1 sprint is 1-4 weeks length.
- The starting and ending date is set and can not be changed

#### Task assignment

- Team members self-assign tasks by choosing them from the Sprint backlog.
- Task can be assigned by team leads before Sprint begins. (in or after Sprint Planning)
- Task assignments can be changed during the iteration.

### DOR vs DOD

#### Definition of Ready - DOR

- **DOR = Definition of Ready**
  - **Checklist** if the team is ready to start the sprint.
- A typical **DOR** might look like this **example**:
- PO and Dev Team need to have **talked about the story at least once**
  - PO explained each user stories to the dev team
  - Story is INVEST ?
  - Story has at least one acceptance criteria ?
  - Story is estimated ?
  - Story is small enough to fit a single sprint ?
  - Everyone understood the current sprint goal?

#### Definition of Done - DOD

- DOD = Definition of Done**
- Checklist to identify if a user story is finished and the product is ready to be delivered.
- A typical **DOD** might look like this example:
- Automated tests are written and all tests are green/pass
  - Code is reviewed
  - All the test cases are executed
  - All positive and negative scenarios are covered for each story
  - Test cases are documented
  - Bugs' status are identified clearly (e.g. bug is new found? a dev is fixing? )

### Scrum calendar sample

March 2021 SuMoTuWeThFrSa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31						
APRIL 2021						
May 2021 SuMoTuWeThFrSa 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 <b>Sprint 20</b> <b>Sprint Plan</b>	2 Stand Up	3
4	5 Stand Up	6 Stand Up <b>Grooming for S21</b>	7 Stand Up	8 Stand Up	9 Stand Up	10
11	12 Stand Up	13 Stand Up	14 Stand Up <b>Demo</b> <b>Retro</b>	15 <b>Sprint 21</b> <b>Sprint Plan</b>	16 Stand Up	17
18	19 Stand Up	20 Stand Up <b>Grooming for S22</b>	21 Stand Up	22 Stand Up	23 Stand Up	24
25	26 Stand Up	27 Stand Up	28 Stand Up <b>Demo</b> <b>Retro</b>	29 <b>Sprint 22</b> <b>Sprint Plan</b>	30 Stand Up	