

COURSE PROJECT USING SCRUM MANAGEMENT METHODOLOGY

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ROLES

- ◉ Product Owner (TA/Instructor/Scrum Master)
- ◉ Scrum Master or called Scrum Lead sometime
- ◉ Team

THE PRODUCT BACKLOG

- ◉ The first step in Scrum is for the Product Owner (TA and Instructor) to give basic idea. It is scrum lead job to articulate the vision in our case. You can bring your own idea to get approval from Product owner.
- ◉ Eventually, this evolves into a refined and prioritized list of features called the **Product Backlog**
- ◉ This backlog exists and evolves over the lifetime of the product; it is the product road map

A SINGLE PRODUCT BACKLOG

- ◉ At any point, the Product Backlog is the single, definitive view of “everything that could be done by the team ever, in order of priority”
- ◉ Only a single Product Backlog exists; this means the Product Owner is required to make prioritization decisions across the entire spectrum

PRODUCT BACKLOG REFINEMENT

- The Product Backlog includes a variety of items, primarily new features, but also engineering improvement goals, exploratory or research work, performance and security requirements, and, possibly, known bugs

page report to TA & Instructor is must atleast once a month

PRODUCT BACKLOG REFINEMENT

- The Product Backlog is continuously updated by the Product Owner to reflect changes for new ideas or insights, technical hurdles that appear, and so forth
- The team/scrum lead provides the Product Owner with estimates of the effort required for each item on the Product Backlog

THE PRODUCT BACKLOG

- ⦿ The Product Owner and scrum lead prioritizes the backlog to or secondarily, to reduce some major risk
- ⦿ This is a continuous re-prioritization activity and the Product Backlog is ever-evolving.

THE PRODUCT BACKLOG

- ◉ Scrum does not mandate the form of estimates in the Product Backlog, but it is common to use relative estimates expressed as “points” rather than absolute units of effort such as person-weeks
- ◉ Over time, a team tracks how many relative points they implement each Sprint; for example, averaging 26 points per Sprint

TEAM VELOCITY

- ◉ With this information they can project a release date to complete all features, or how many features will likely be completed by a date
- ◉ The points completed per Sprint is called the velocity of the team
- ◉ A realistic release plan is always based on the velocity of the team

SPRINT PLANNING

- At the beginning of each Sprint, the Sprint Planning Meeting takes place
- It is divided into two distinct sub-meetings, the first of which is called Sprint Planning Part One

SPRINT PLANNING PART ONE

- In Sprint Planning Part One, the Product Owner and Team (with facilitation from the Scrum Master) review the high-priority items in the Product Backlog that the Product Owner is interested in implementing this Sprint. We are giving this role to scrum lead/master.

SPRINT PLANNING PART TWO

- Sprint Planning Part Two focuses on detailed task planning for how to implement the items that the team decides to take on
- The Team selects the items from the Product Backlog they commit to complete by the end of the Sprint, starting at the top of the Product Backlog (in others words, starting with the items that are the highest priority for the Product Owner) and working down the list in order

PRODUCT OWNER/TA/INSTRUCTOR ROLE IN SPRINT PLANNING

- ◉ Product Owner does not have control over how much the team commits to but the items the team is committing to are drawn from the top of the Product Backlog
- ◉ The team has the authority to also select items from further down the list in consultation with the Product Owner

SPRINT BACKLOG

- Once the Team capacity available is determined, the Team starts with the first item on the Product Backlog - in other words, the Product Owner's highest priority item - and working together, breaks it down into individual tasks, which are recorded in a document called the Sprint Backlog
- The team will move sequentially down the Product Backlog in this way, until it's used up all its capacity

“GO TO WHERE THE WORK IS”

- ◉ Scrum encourages multi-skilled workers, rather than only “working to job title” such as a “tester” only doing testing
- ◉ In other words, team members “go to where the work is” and help out as possible
- ◉ If there are many testing tasks, then all Team members may help
- ◉ Students can easily follow this principle.

WEEKLY SCRUM

- ⦿ This is a short (15 minutes or less) meeting that should happen once/twice a week at an appointed time and place
- ⦿ It is the Team's opportunity to report to each other and inspect each other's progress and obstacles. online meetings are OK

WEEKLY SCRUM

- ◉ In the weekly Scrum, one by one, each member of the team reports three (and only three) things to the other members of the team
 - What they were able to get done since the last meeting
 - What they are planning to finish by the next meeting
 - Any blocks or impediments that are in their way

WEEKLY SCRUM

- Someone makes note of the blocks, and the Scrum Master is responsible for helping team members resolve them

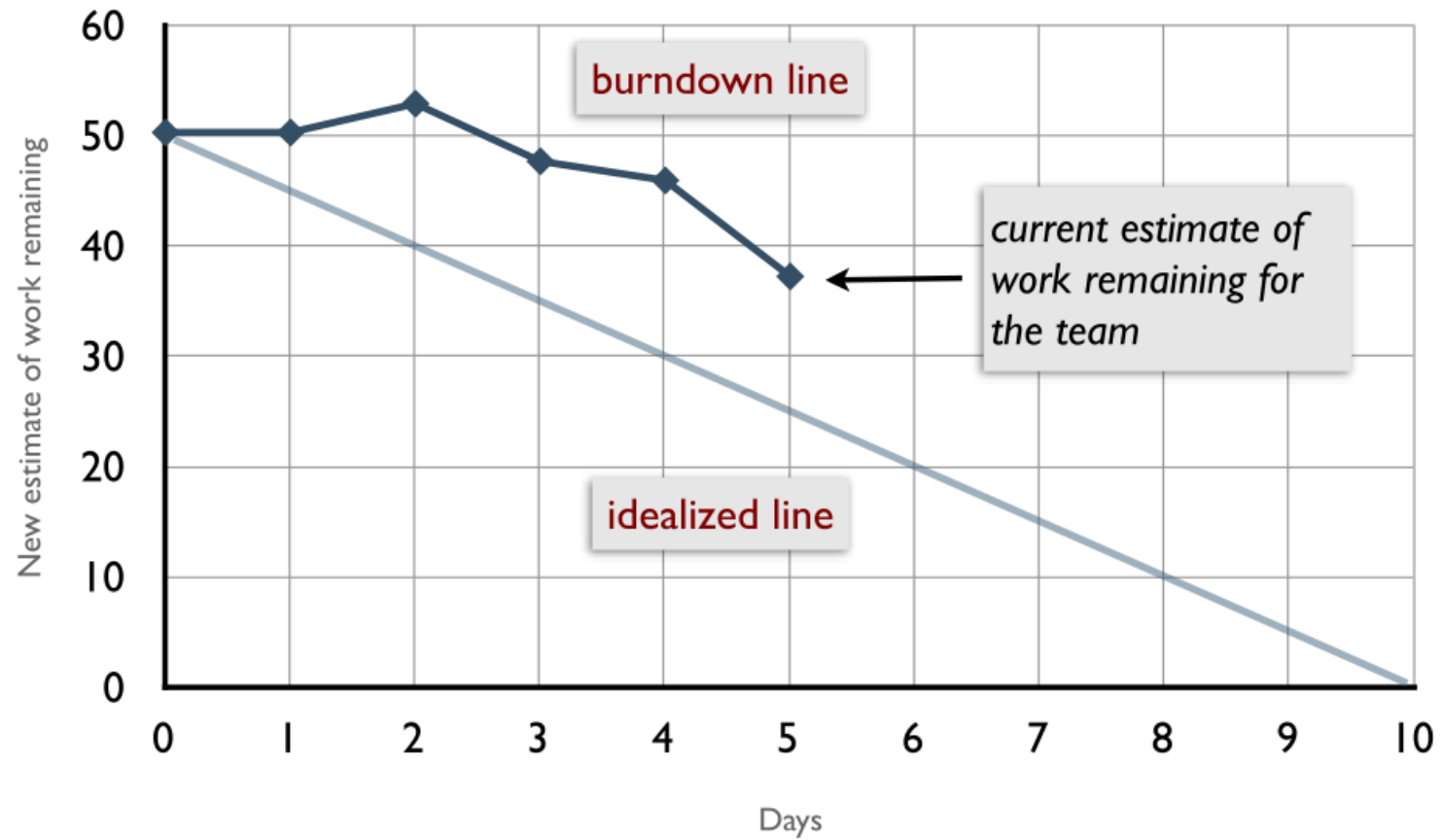
UPDATING SPRINT BACKLOG & SPRINT BURN-DOWN CHART

- Every day (in your case twice a week), the Team members update their estimate of the amount of time remaining to complete their current task in the Sprint Backlog
- Following this update, someone adds up the hours remaining for the Team as a whole, and plots it on the Sprint Burn-down Chart

SPRINT BURN DOWN CHART

- This graph shows, each day, a new estimate of how much work (measured in person hours or relative points) remains until the Team's tasks are finished
- Ideally, this is a downward sloping graph that is on a trajectory to reach “zero effort remaining” by the last day of the Sprint

SPRINT BURN DOWN CHART



SCRUM EMERGENCY PROCEDURE

- If the burn-down line is not tracking downwards towards completion by mid-Sprint, the team needs to execute the Scrum Emergency Procedure:
 - Change the approach to the work or remove impediments to increase velocity
 - Get help by having someone outside the team take some of the backlog
 - Reduce the scope of work
 - Abort the Sprint
 - It must be reported to TA/Instructor

SPRINT REVIEW

- ◉ After the Sprint ends, there is the Sprint Review, where the team reviews the Sprint with the Product Owner
- ◉ The Sprint Review is an inspect and adapt activity for the product
- ◉ It is a time for the Product Owner and key stake-holders to learn what is going on with the product and with the Team and for the Team to learn what is going on with the Product Owner and the market

SPRINT REVIEW

- The review includes a demo of what the Team built during the Sprint
- Present at this meeting are the Product Owner , Team members, and Scrum Master, plus customers, stakeholders, experts, executives, and anyone else interested

STARTING THE NEXT SPRINT

- Following the Sprint Review, the Product Owner may update the Product Backlog with any new insights
- At this point, the Product Owner and Team are ready to begin another Sprint cycle