VSR | EDU

Current Trends
in
Web Engineering

Current Trends in Web Engineering

Prof. Dr.-Ing. Martin Gaedke
Technische Universität Chemnitz
Fakultät für Informatik
Verteilte und selbstorganisierende Rechnersysteme

The Meetings

5 Meetings

- Estimation / Pre Planning
  - Forming the Product Backlog
- Sprint Planning
  - Define tasks and negotiate a commitment on Sprint Goals
- Daily Scrum
  - Team reports to itself – daily commitment
- Sprint Review
  - Demonstration of working software
- Sprint Retrospective
  - Improve the process

Other meetings

- Design Meetings, UI workshops
- Release Planning Meeting
  - Requirements workshops (Story writing)
  - Estimation workshops (Story estimating)

The Meetings - Timing

A sprint is 100% of the time box.

- 5% of 4 weeks sprint → 1 day
- 5% of 2 weeks sprint → ½ day

Meetings

- Sprint Planning (5%)
- Daily Scrum (15 min/day)
- Sprint Review & Sprint Retrospective (5%)

Capacity

- Gross Capacity:
  - #team member * net work hour / day * days
- Net Capacity:
  - Gross Capacity – 20% Noise – 10% Meetings – 10% Look Ahead – 15% mission critical problems
  - Look ahead: e.g. Grooming, helping PO

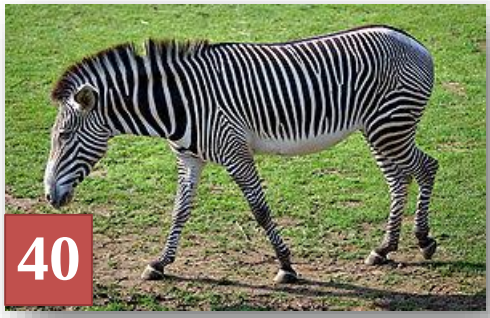
The Meetings

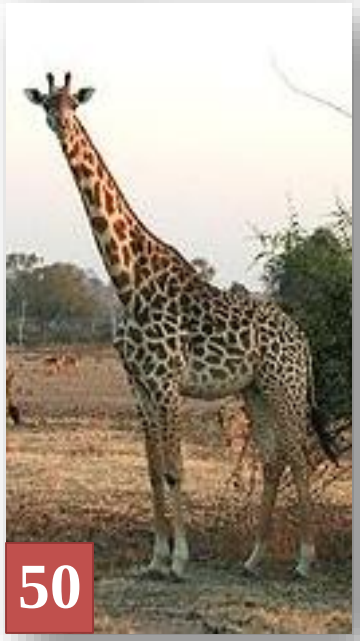
- **Estimation / Pre Planning**
- Sprint Planning
- Daily Scrum
- Sprint Review
- Sprint Retrospective

Estimation / Pre-Planning

- Let's say we have a product backlog
  - How we got there will be discussed in a later section.
- Estimation Meeting is about estimating size of Stories
  - How does the size of a story look like?
  - Example: 1 – 2, 1 – 3, 17 – 18, 230 – 247
- Why is this important?

Estimating Relative Size





Scale: 1-50

Echidna

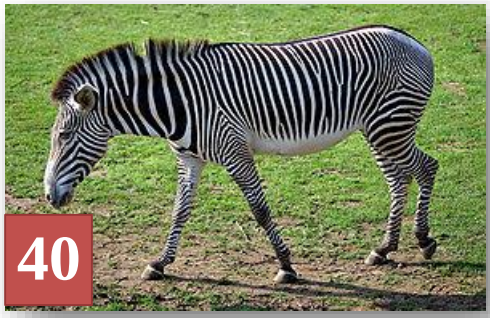
?

All Pictures from Wikipedia.de

Estimating Relative Size


25


8


40


30


5


50


1


4

Scale: 1-50

All Pictures from Wikipedia.de

Estimation

- Estimation also an art of scaling
  - 1 – 2, 1 – 3, 17 – 18, 230 – 247
  - Size of a backlog item compared to others
    - Several approaches like S, M, L, XL, XXL
  - Recommended Approaches:
    - Fibonacci sequence: 1, 2, 3, 5, 8, 13, 21, …
    - Planning Poker with Fibonacci-oriented sequence: 0, ½, 1, 2, 3, 5, 8, 13, 20, 40, 100,…
      - Don't forget the power of poker cards
    - Affinity Estimation

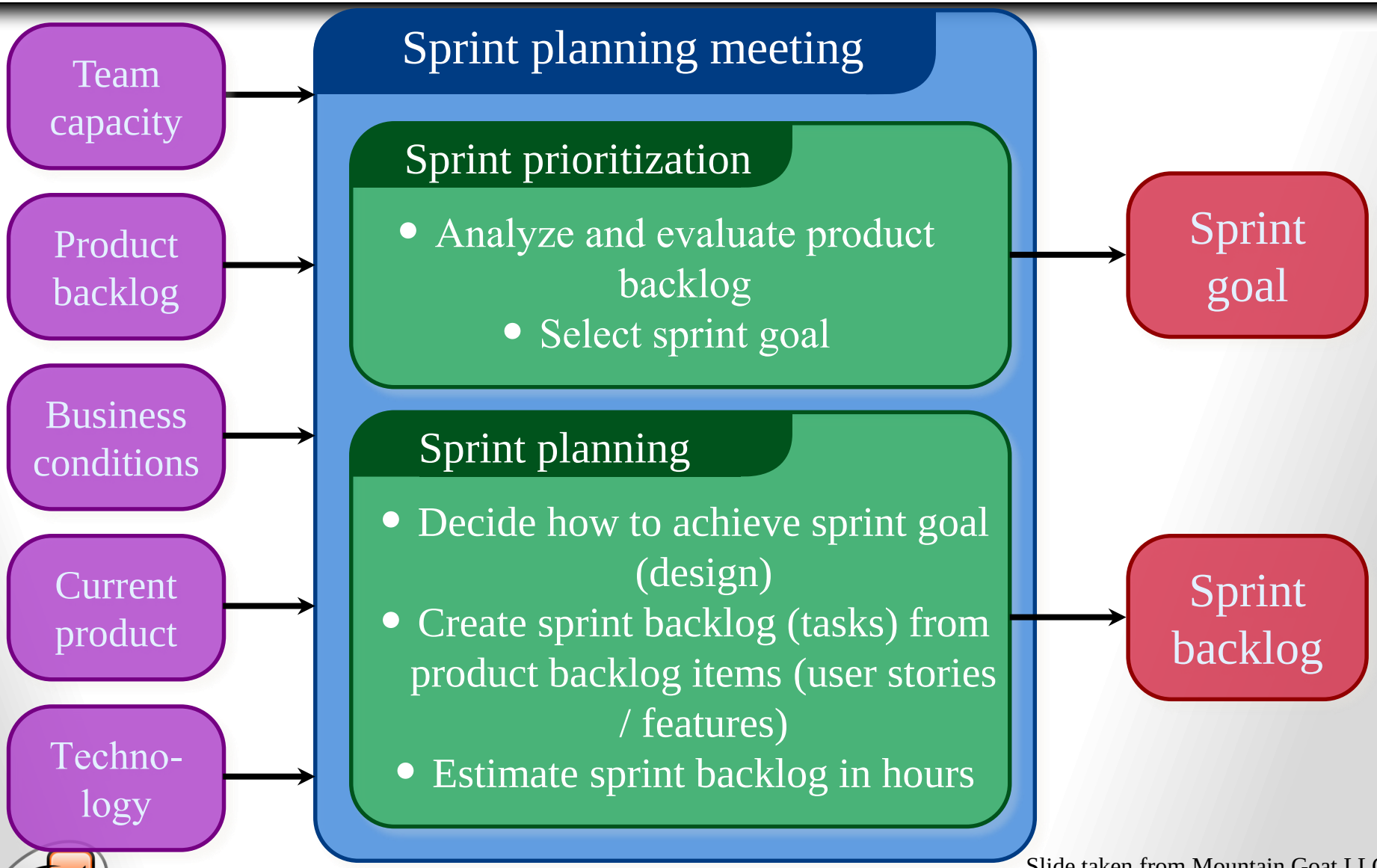
The Meetings

- Estimation / Pre Planning
- **Sprint Planning**
- Daily Scrum
- Sprint Review
- Sprint Retrospective

Sprint Planning

- Sprint Planning is about transforming Product Backlog items (Stories) into Sprint Backlog items (Tasks)
- Before the meeting
  - The team, with the support of the product owner, estimates the product backlog items
  - The product owner prioritizes the product backlog

Sprint Planning Meeting



Slide taken from Mountain Goat LLC

Sprint Planning

Slide taken from Mountain Goat LLC

- Team selects items from the product backlog they can commit to completing
  - ▶ Following the priorization of the stories
- Sprint backlog is created
  - ▶ Tasks are identified and each estimated in work units (eg ¼ days)
  - ▶ Collaboratively, not done alone by the ScrumMaster
- High-level design is considered

As a vacation planner, I want to see photos of the hotels.

→

Code the middle tier (8 hours)
Code the user interface (4)
Write test fixtures (4)
Code the foo class (6)
Update performance tests (4)

The Meetings

- Estimation / Pre Planning
- Sprint Planning
- **Daily Scrum**
- Sprint Review
- Sprint Retrospective

The daily scrum

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Parameters

- Daily
- 15-minutes
- Stand-up

Not for problem solving

- Whole world is invited
- Only team members, ScrumMaster, product owner, allowed to talk (i.e. only pigs allowed to talk – not chicken)

Helps avoid other unnecessary meetings

Everyone answers 3 questions

Slide taken from Mountain Goat LLC

- These are not status for the ScrumMaster
  - ► They are commitments in front of peers

1. What did you do yesterday?
2. What will you do today?
3. Is anything in your way?

The Meetings

- Estimation / Pre Planning
- Sprint Planning
- Daily Scrum
- **Sprint Review**
- Sprint Retrospective

The sprint review

- Team presents what it accomplished during the sprint
- Typically takes the form of a demo of new features or underlying architecture
- PO decides on Done
  (has to be defined by Scrum Team)
  Good practice: "Definition of Done"
- Whole team participates
- Invite the world

The Meetings

- Estimation / Pre Planning
- Sprint Planning
- Daily Scrum
- Sprint Review
- **Sprint Retrospective**

Sprint retrospective

- Periodically take a look at what is and is not working
- Typically 15–30 minutes
- Done after every sprint
- Whole team participates
  - ScrumMaster
  - Product owner
  - Team
  - Possibly customers and others

Start / Stop / Continue

Slide taken from Mountain Goat LLC

- Whole team gathers and discusses what they'd like to:

Start doing

Stop doing

Continue doing

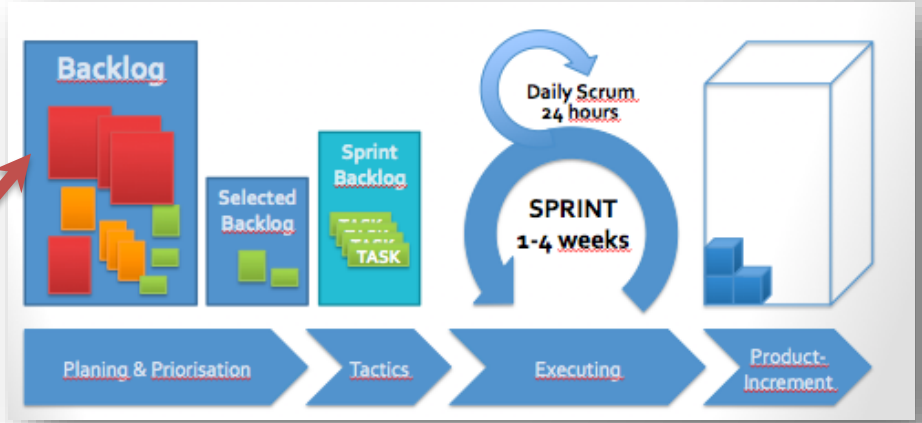
This is just one of many ways to do a sprint retrospective.

SECTION://4

Scrum Artifacts

Product backlog

- The requirements
- A list of all desired work on the project
- Ideally expressed such that each item has value to the users or customers of the product
- Prioritized by the product owner
- Reprioritized at the start of each sprint



This is the product backlog

A sample product backlog

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Backlog item	Estimate
Allow a guest to make a reservation	3
As a guest, I want to cancel a reservation.	5
As a guest, I want to change the dates of a reservation.	3
As a hotel employee, I can run RevPAR reports (revenue-per-available-room)	8
Improve exception handling	8
…	30
…	50

The sprint goal

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- A short statement of what the work will be focused on during the sprint

Life Sciences

Support features necessary for population genetics studies.

Database Application

Make the application run on SQL Server in addition to Oracle.

Financial services

Support more technical indicators than company ABC with real-time, streaming data.

Managing the sprint backlog

- Individuals sign up for work of their own choosing
  - Work is never assigned
- Estimated work remaining is updated daily
- Any team member can add, delete or change the sprint backlog
- Work for the sprint emerges
- If work is unclear, define a sprint backlog item with a larger amount of time and break it down later
- Update work remaining as more becomes known

Story/Task – Dashboard Example

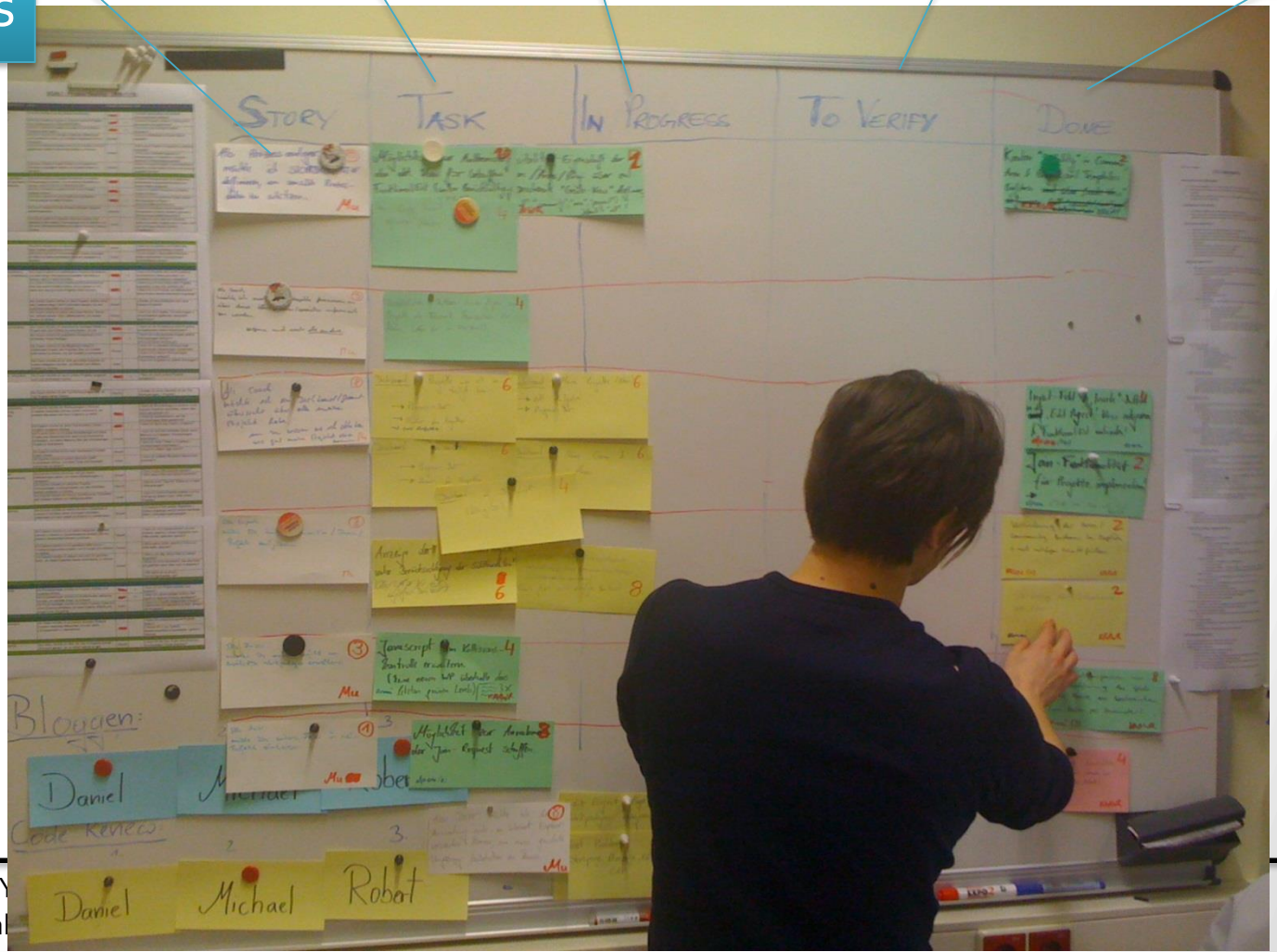
Tasks

In Progress

To Verify

Stories

Done



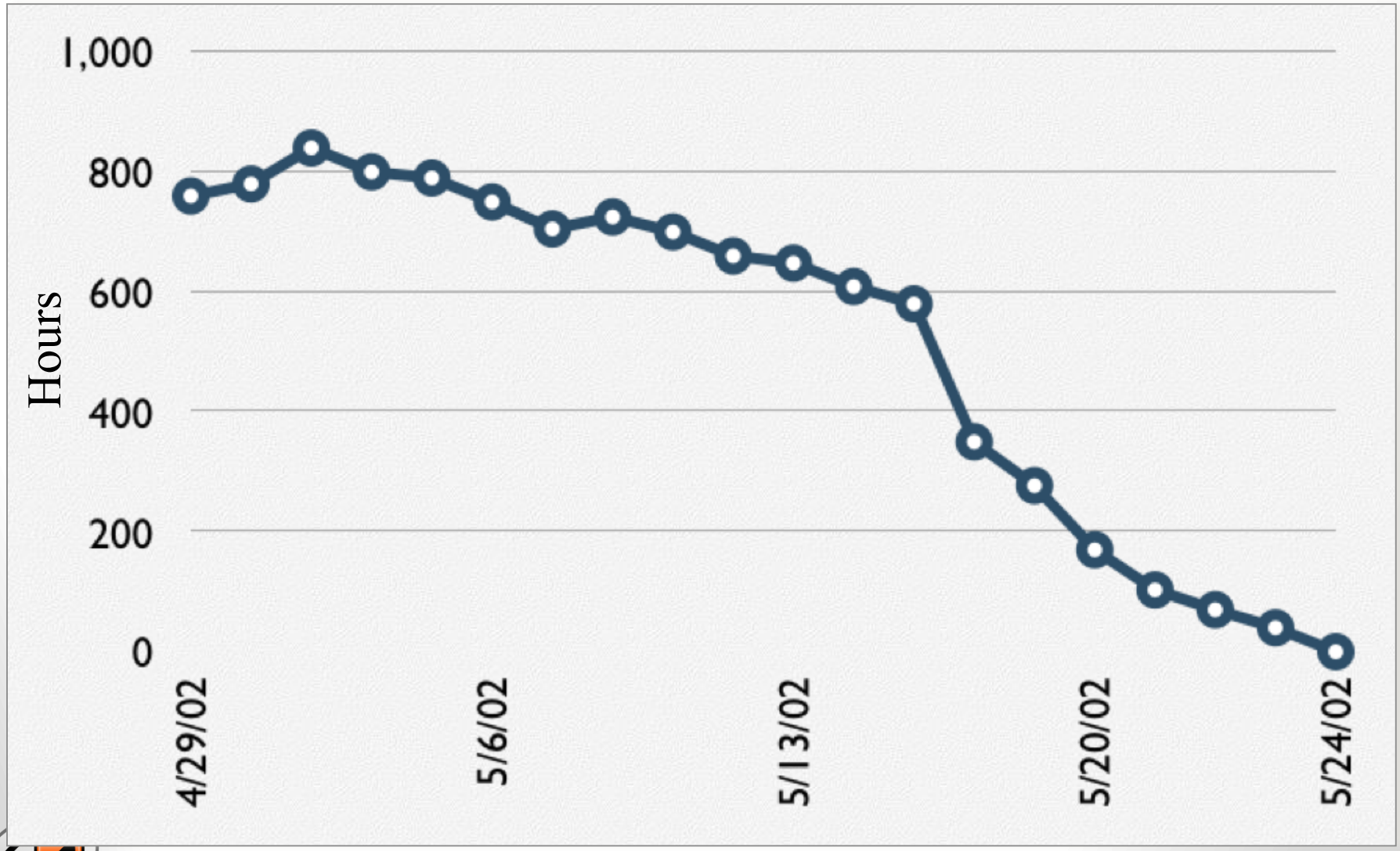
A sprint backlog

Slide taken from Mountain Goat LLC

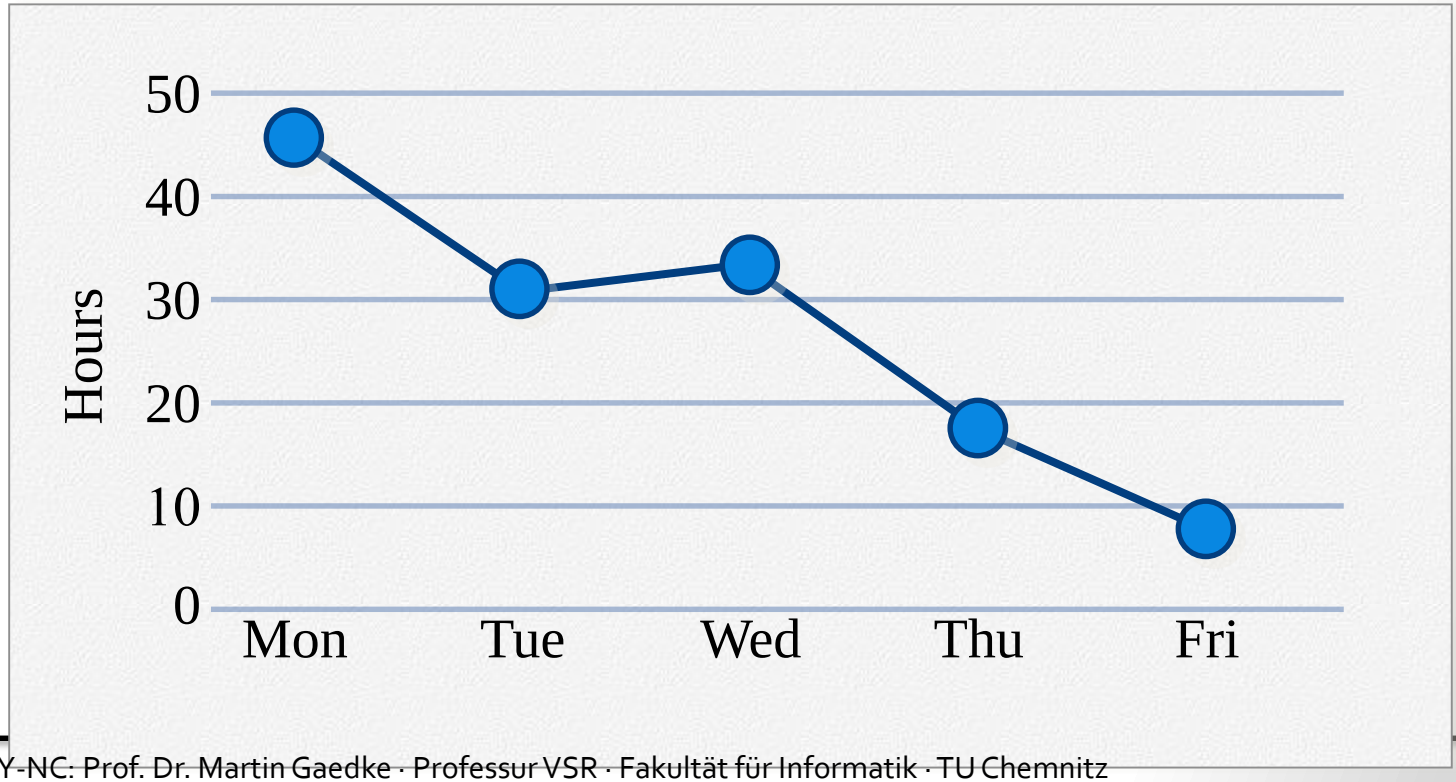
Tasks	Mon	Tues	Wed	Thur	Fri
Code the user interface	8	4	8		
Code the middle tier	16	12	10	4	
Test the middle tier	8	16	16	11	8
Write online help	12				
Write the foo class	8	8	8	8	8
Add error logging			8	4	

A sprint burndown chart

Slide taken from Mountain Goat LLC



Tasks	Mon	Tues	Wed	Thur	Fri
Code the user interface	8	4	8		
Code the middle tier	16	12	10	7	
Test the middle tier	8	16	16	11	8
Write online help	12				



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Don‘t forget your homework ;)

- https://vsr.informatik.tu-chemnitz.de/edu/2018/smws/
- **By 27.11.2018:** Try to find out and understand what User Story Mapping, Experience Maps & Customer Journey Maps is all about - and how to apply and use these tools.
- The following book might also provide very good insights: *User Story Mapping, By Jeff Patton Edited By Peter Economy Foreword By Alan Cooper, Martin Fowler, Marty Cagan Publisher: O'Reilly Media*
- Please prepare examples from university life to demonstrate during the lecture, e.g. the registration process to become a Master Student or the process from searching for to finishing the BSc project.