

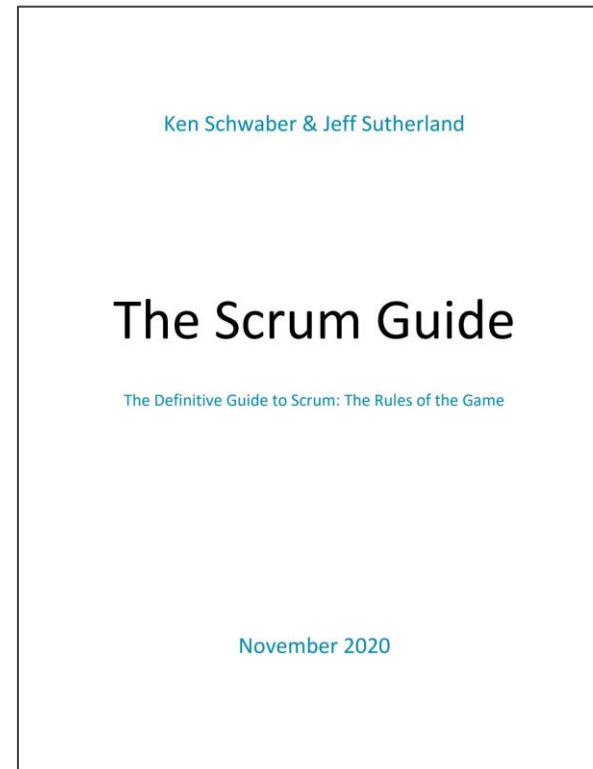


Scrum

Šta je Scrum?

- Scrum je implementacioni okvir koji pomaže ljudima, timovima i organizacijama da generišu vrednost kroz prilagodljiva rešenja za složene probleme.
- Scrum je
 - Jednostavan
 - Nekompletan (sa namerom)
 - Zasnovan na empirizmu

First published in 2010
Revised in 2020
The definition of Scrum
The rules of the game
**Not the strategy for
winning**

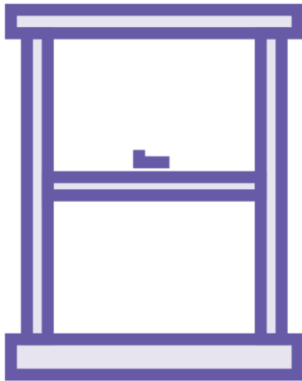


<https://scrumguides.org>

Teorija Scruma (Scrum Theory)

- Koristi iterativni, inkrementalni pristup da optimizira predviđanje i da kontroliše rizik.
- Angažuje grupe ljudi koji zajedno imaju sve veštine i stručnost da urade posao i da podele ili po potrebi steknu takve veštine

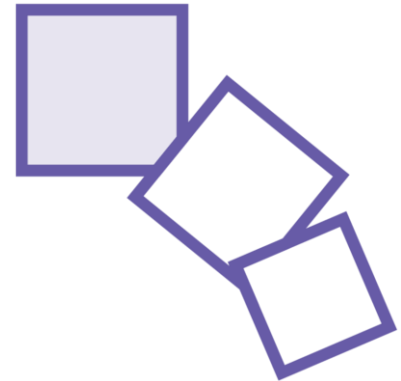
Stubovi iskustvenog empirijskog scrum-a



Transparentnost



Nadzor



Prilagođavanje

Transparentnost

- Proces i rad moraju biti vidljivi
- Manja transparentnost dovodi do povećanja rizika
- Transparentnost omogućava nadzor

Nadzor

- Scrum artifakti i napredak moraju se često nadzirati
- Cilj – otkrivanje neželjenih problema
- Nadzor omogućava prilagođavanje

Prilagođavanje

- Ukoliko u procesu dođe do odstupanja, postupak ili artifakti moraju da se menjaju
- Uslov za promene – samoorganizacija i samostalnost tima

Vrednosti scrum-a

Predanost

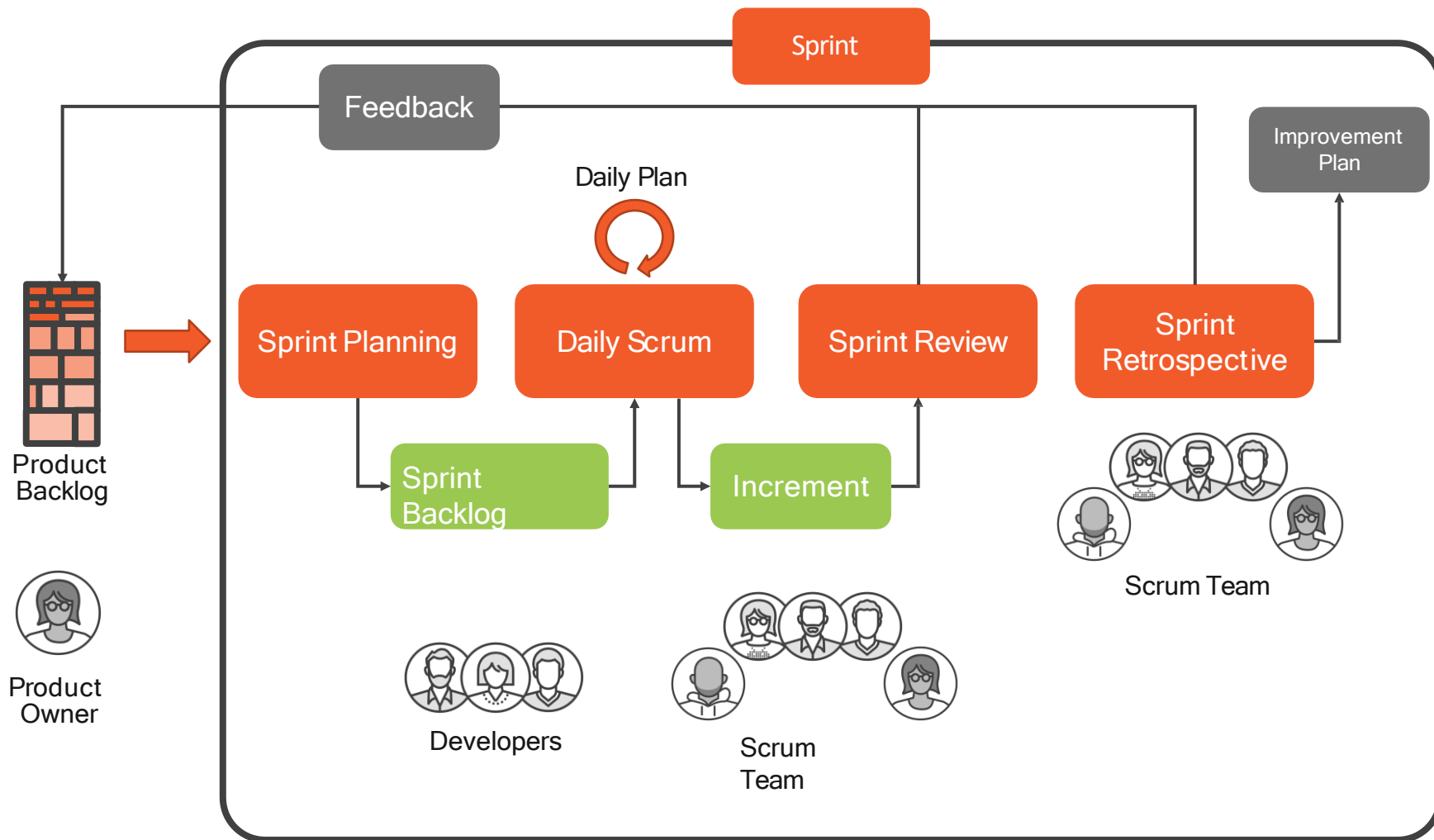
Fokus

Otvorenost

Poštovanje

Hrabrost





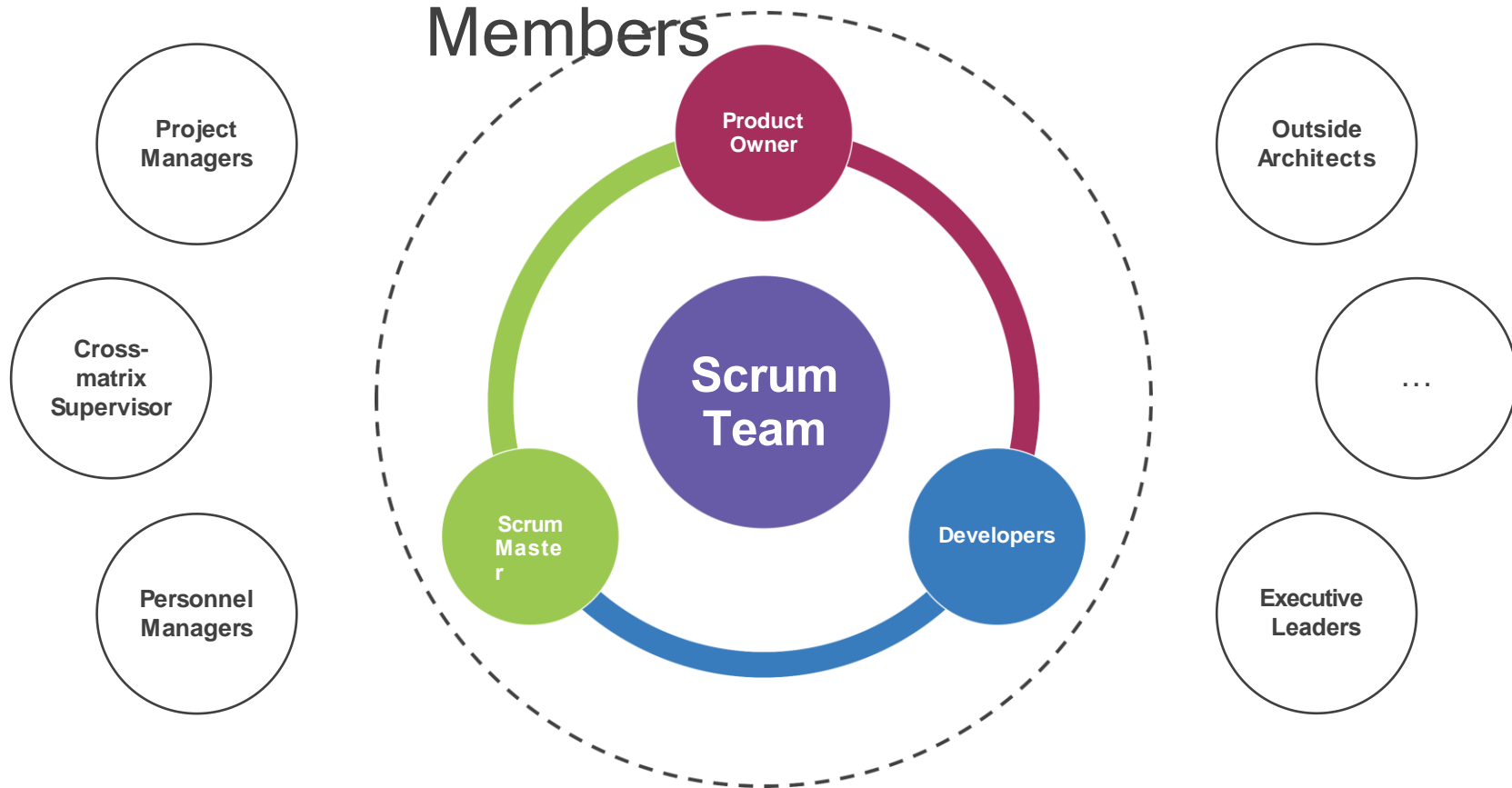
Uloge

- Scrum team
- Product owner
- Developeri
- Scrum master

Scrum Team

- Organizacija
 - Scrum Master
 - Product Owner
 - Developeri
- Ne postoje podtimovi
- Unakrsna funkcionalnost
- Samoorganizovanost
- Fleksibilnost

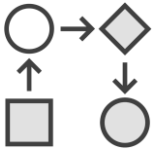
Scrum Team Members



Scrum Team Attributes



Smaller teams of 10 or fewer are more effective



Self-managing



Always focused on the Product Goal



Cross-functional

Developeri

- Ljudi posvećeni stvaranju korisnog inkrementa u sprintu
- Odgovorni su za:
 - Stvaranje Sprint Backlog-a
 - Održavanje i unapređenje kvaliteta kroz pridržavanje „Definition of Done“
 - Prilagođavanje plana prema cilju Sprinta
 - Vode računa o profesionalnosti svakog člana tima

Product Owner

- Odgovoran je za maksimizovanje vrednosti proizvoda
- Način rada product owner-a može da se razlikuje od organizacije do organizacije
- Odgovoran je za:
 - Razvoj cilja proizvoda uz jasnu komunikaciju
 - Stvaranje product backlog-a uz jasnu komunikaciju
 - Redosled stavki product backlog-a
 - Transparentnost, vidljivost i razumljivost product backlog-a
- PO može da delegira poslove, dok odgovornost ostaje na PO
- Cela organizacija mora da poštuje odluke PO

Scrum Master

**Scrum
Teams**



Developers



Product Owners



**The whole
organization**



Scrum Master

- Odgovoran je za:
 - Uspostavljanje tima u skladu sa principima scrum-a
 - Razumevanje scrum procesa od strane celog tima
 - Efektivnost tima
- Služi timu:
 - Trening članova tima
 - Pomaganje timu da se fokusira na inkrement koji ima veliku vrednost
 - Uklanjanje prepreka
 - Vođenje računa da su svim scrum događajima

Scrum Master

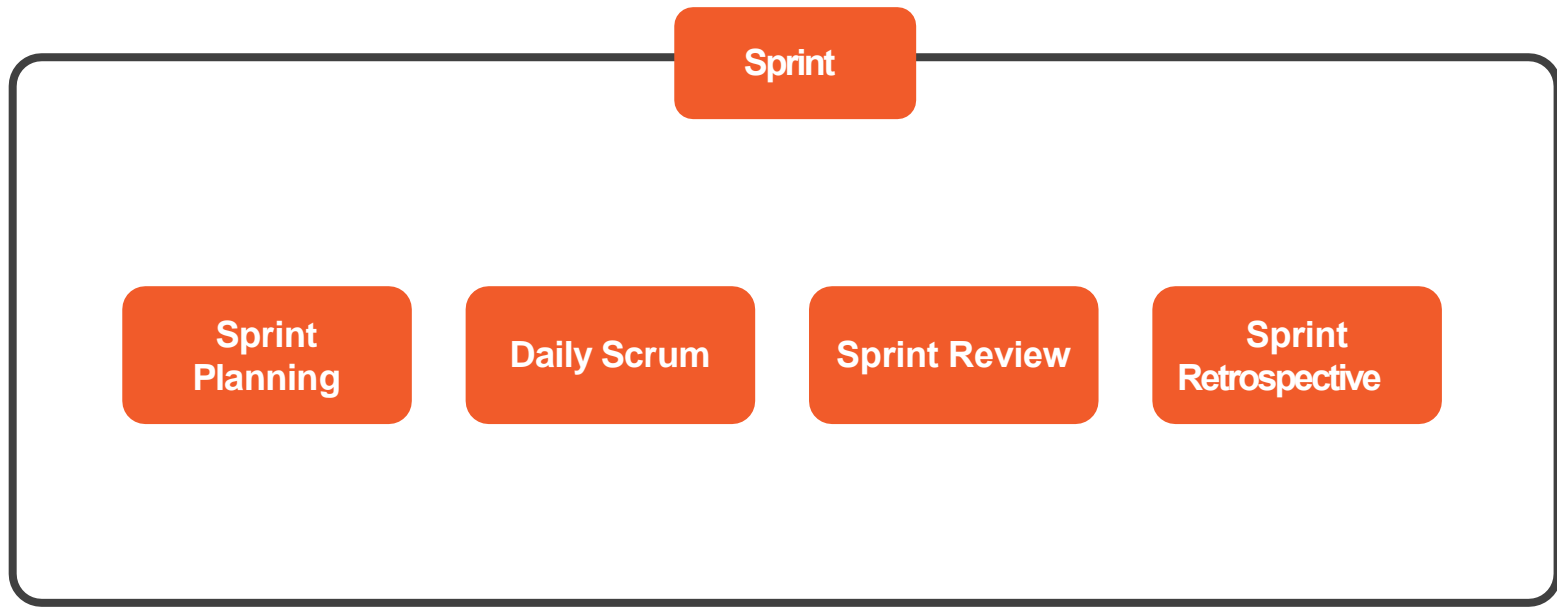
- Služi PO-u:
 - Pomaže timu u razumevanju product backlog stavki
 - Planiranje razvoja proizvoda
 - Omogućavanje saradnje stakeholder-a
- Služi organizaciji:
 - Vodi i trenira organizaciju u prihvatanju scrum principa
 - Učestvuje u planiranju i savetovanju pri implementaciji scrum-a u organizaciji
 - Uklanja prepreke između stakeholder-a i scrum timova



Scrum dogadaji

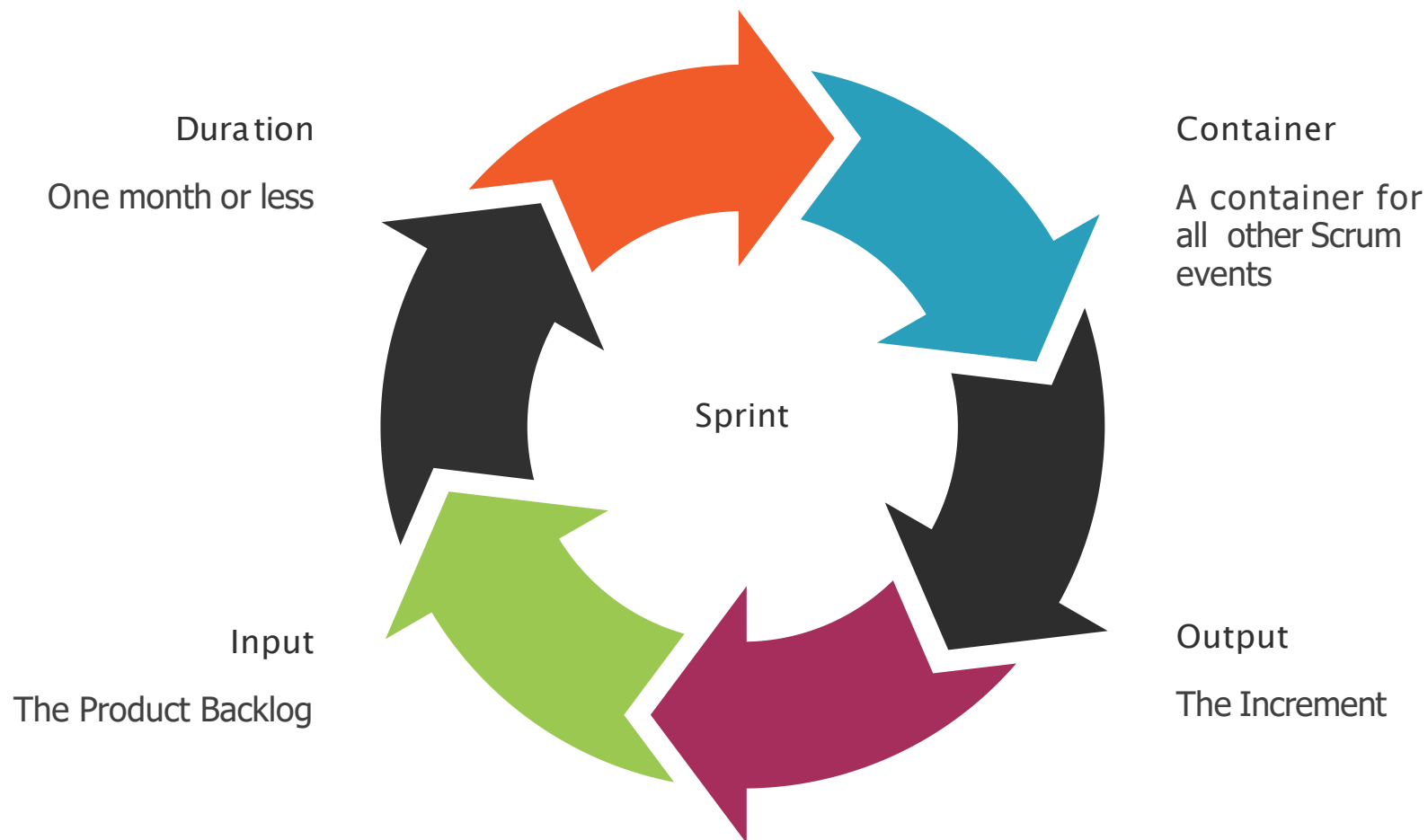
Scrum događaji

- Sprint
- Planiranje sprint-a
- Dnevni sastanci
- Sprint review
- Sprint retrospektiva



Sprint

- Period u kome dolazi do inkrementa proizvoda
- Fiksno trajanje (do jednog meseca)
- Počinje neposredno posle zatvaranja prethodnog sprinta
- Svi ostali događaji dešavaju se unutar sprinta
- Tokom sprinta:
 - Ne smeju se praviti promene koje ugrožavaju cilj
 - Kvalitet proizvoda ne sme da opada
 - Product backlog se menja po potrebi
 - Opseg (scope) može da se razjasni u dogovoru sa PO



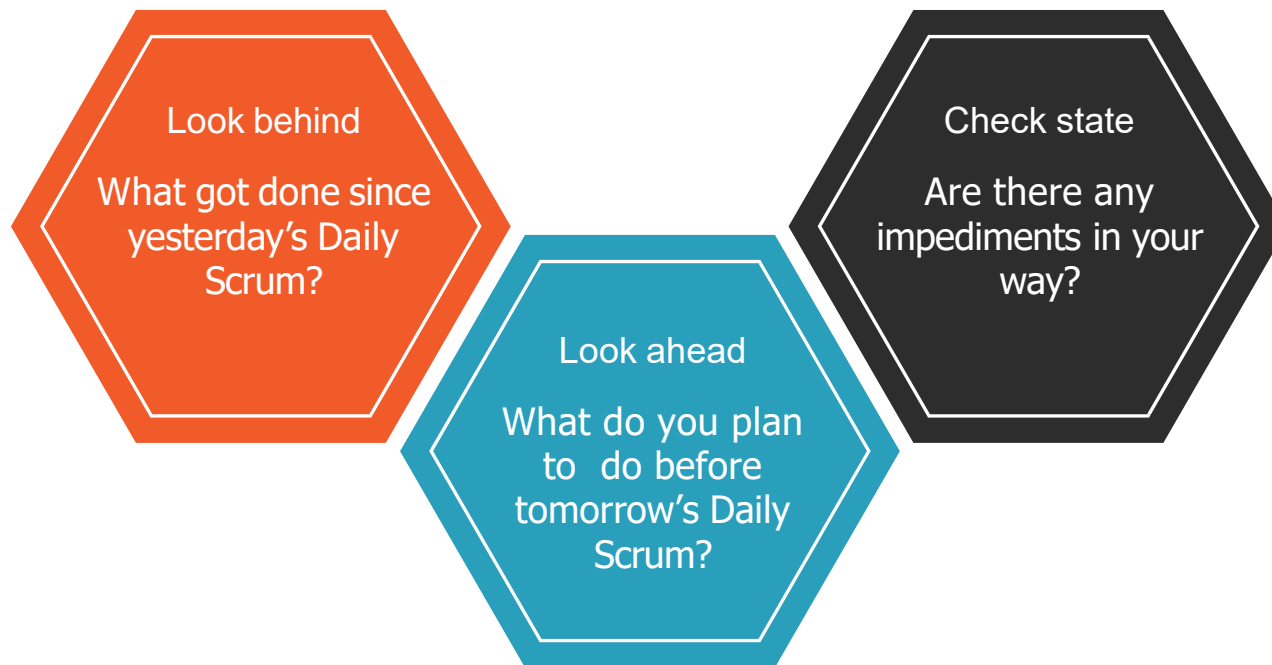
Planiranje sprinta

- Pokreće Sprint postavljanjem posla koji treba da bude urađen
- Iz product backlog-a se izdvajaju prioritetne stavke (odgovornost PO-a)
- Svi učesnici moraju biti spremni
- Teme:
 - Koja vrednost (increment) će biti izlaz iz sprint-a?
 - Šta može da bude urađeno tokom sprint-a?
 - Na koji način će posao biti urađen?

Dnevni sastanci

- Dnevni događaj u trajanju do 15 minuta
- Održava se svakog dana u isto vreme
- Praćenje progressa prema cilju sprint-a
- Izmena sprint backlog-a (ukoliko je neophodno)

The Three Questions



Sprint review

- Pretposlednji događaj u sprint-u
- Praćenje ishoda sprint-a
- Prezentacija rezultata
- Prilagođavanje i izmena backlog-a
- Trajanje: maksimalno 4 sata

Sprint retrospektiva

- Poslednji sastanak u sprint-u
- Cilj: podizanje kvaliteta i efektivnosti
- Analiza održanog sprinta u pogledu:
 - Pojedinaca
 - Komunikacije i interakcije
 - Procesa
 - Alata
 - Definition of done
- Retrospektiva odgovara na pitanja:
 - Šta smo kao tim dobro uradili?
 - Šta smo kao tim loše uradili?
 - Šta je potrebno unaprediti?
 - Šta je potrebno uvesti?
 - Kakve procese i prakse je potrebno izbaciti?



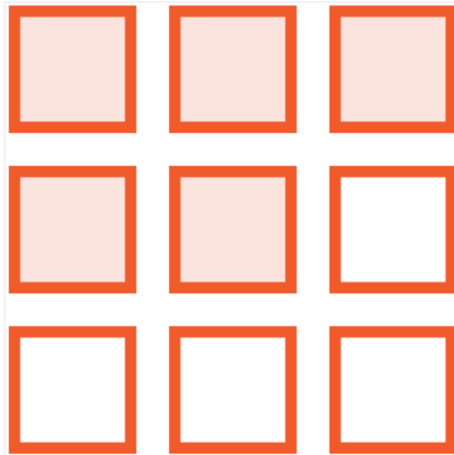
Scrum artifakti

Scrum artifakti

- Product backlog
- Sprint backlog
- Inkrement

Product backlog

- Sortirana lista koja ukazuje na potrebna unapređenja proizvoda
- Stavke koje mogu da budu uzete u rad smatraju se spremne za selekciju u sprint planiranju
- Kroz refinement obavlja se kreiranje, analiza i razrada stavki, kao i razbijanje u manje stavke
- Za veličinu stavki odgovorni su developeri
- Commitment: Product Goal



Product Backlog Items

Features

Functions

Defects

Requirement

s

Enhancements

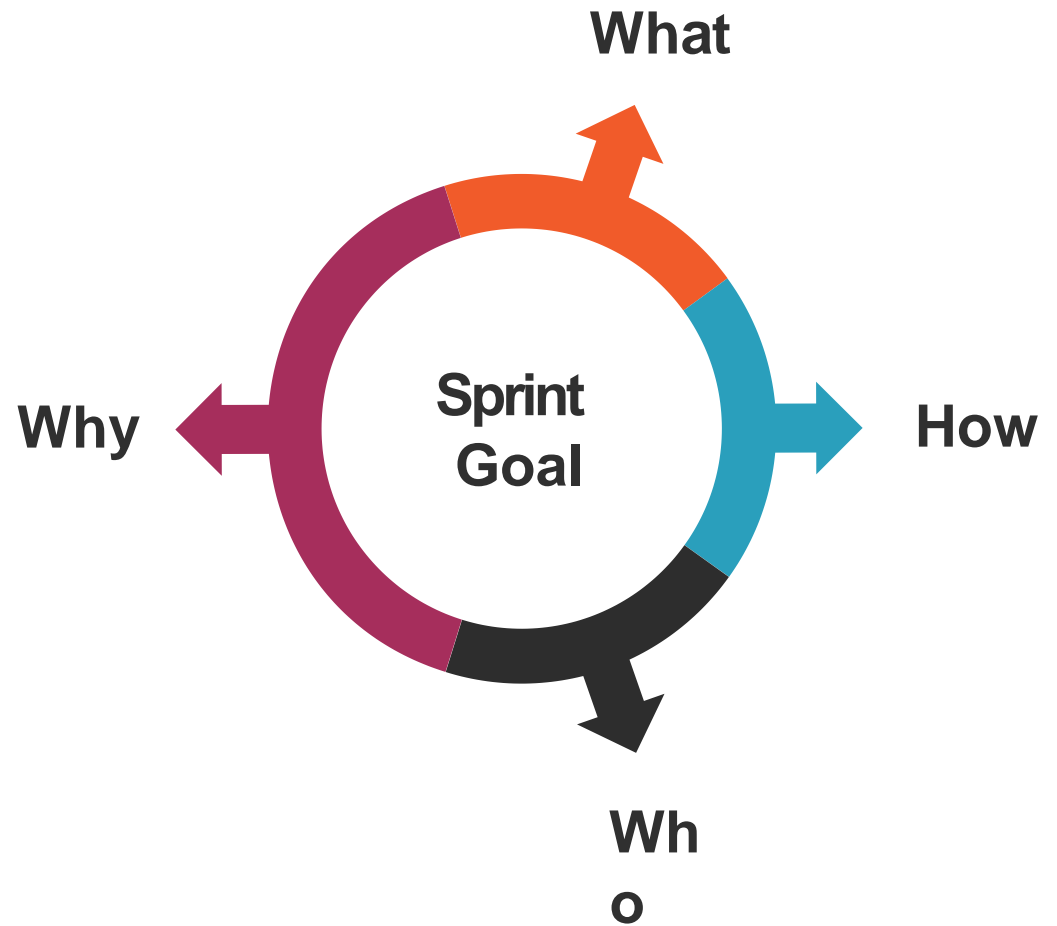
Bugs

Change Requests

Product improvements

All of these are valid PBIs (Product Backlog Items)

Sprint Goal



Sprint backlog

- Plan za developere
- Veoma vidljiv, u realnom vremenu
- Može da se ažurira u toku sprint-a
- Sastoji se od:
 - Ciljeva sprint-a (zašto?)
 - Selektovanih stavki product backlog-a (šta?)
 - Akcionog plana za isporuku inkrement-a (kako?)
 - Dodeljenih odgovornosti (ko?)
- Commitment: Sprint Goal



Tehnike estimacije

Technique for Estimating

- Estimate by Analogy
- Disaggregation
- Planning poker

Story points

- Probably the most commonly used estimating unit among Agile teams today
- How long user will take (effort)
- Influenced by complexity, uncertainty, risk, volume of work etc...

3 key advantages of estimating in Story points

- Forces the use of relative estimating
 - Studies have shown we're better at this
- Focuses us on estimating the size, not the duration
 - Time based estimates are not additive

Estimate by Analogy

- Comparing a user story to others
 - “This story is like that story, so its estimate is what that story’s estimate was.”
- Don’t use a single gold standard
- Triangulate instead
 - Confirm estimates by comparing the story to multiple other stories.
 - Group like-sized stories on table or whiteboard

Disaggregation

- Breaking a big story into smaller stories or tasks
 - You know how long the smaller tasks take
 - So, disaggregating to something you know lets you estimate something bigger you don't know
- Sometimes very useful
- But disaggregating too far causes problems
 - Forgotten tasks
 - Summing lots of small errors can be big number

Planning Poker

- An iterative approach to estimating
- Steps:
 - Each member of the team is given deck of cards, each card has a valid estimate written on it
 - Customer/Product owner reads a story and it's discussed briefly
 - Each estimator selects a card that's his or her estimate
 - Cards are turned over so all can see them
 - Discuss differences (especially outliers)
 - Re-estimate until estimates converge or reach consensus in which all participants agree with an estimate after they have discussed it and understood each other opinions.

Use the right units

- Can you distinguish a 1-point story from a 2?
 - How about a 17 from an 18?
- Use units that make sense, such as
 - 1, 2, 3, 5, 8, 13 (Fibonacci numbers)
 - 1, 2, 4, 8
- Stay mostly in a 1-10 range
- Use 0, $\frac{1}{2}$ if you want



User Stories

User stories

- User stories are probably the most popular agile technique to capture product functionality:
 - Working with user stories is easy. But telling effective stories can be hard.
- User stories are short, simple descriptions of a feature told from the perspective of the person who desires the new capability, usually a user or customer of the system.
- A story should be small enough to be coded and **tested** within an iteration—ideally just a few days.
- When a story is too large, it is called an epic. Backlog items tend to start as epics when they are lower priority. For release planning, epics should be broken down into smaller chunks.

How Do I Write User Stories?

- *As a <user type>, I want to <function> so that <benefit>*

Examples:

- As a consumer, I want shopping cart functionality to easily purchase items online.
- As an executive, I want to generate a report to understand which departments need to improve their productivity

Detailing a User Story

- Acceptance criteria
 - Condition of satisfaction
 - The conditions of satisfaction is simply a high-level acceptance test that will be true after the agile user story is complete
- As a vice president of marketing, I want to select a holiday season to be used when reviewing the performance of past advertising campaigns so that I can identify profitable ones.
 - Make sure it works with major retail holidays: Christmas, Easter, President's Day, Mother's Day, Father's Day, Labor Day, New Year's Day.
 - Support holidays that span two calendar years (none span three).
 - Holiday seasons can be set from one holiday to the next (such as Thanksgiving to Christmas).
 - Holiday seasons can be set to be a number of days prior to the holiday.



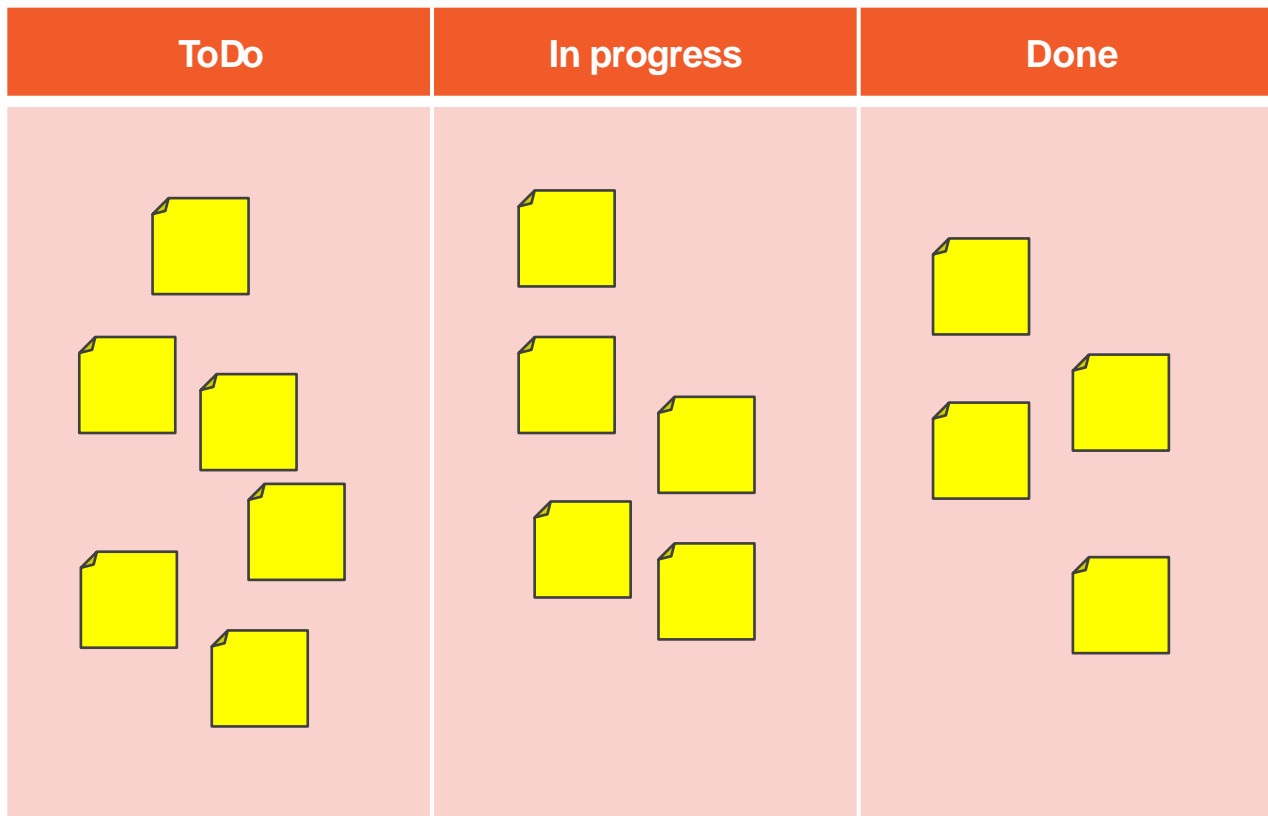
Scrum alati




















Scrum alati

- The Sprint Board
- Charting Sprint Progress
- The Estimation Wall
- Scrumbut

The Sprint Board

- Vizuelno praćenje pogresa sprint-a
- Jednostavan sprint board sastoji se od tri kolone:
 - To Do
 - In Progress
 - Done

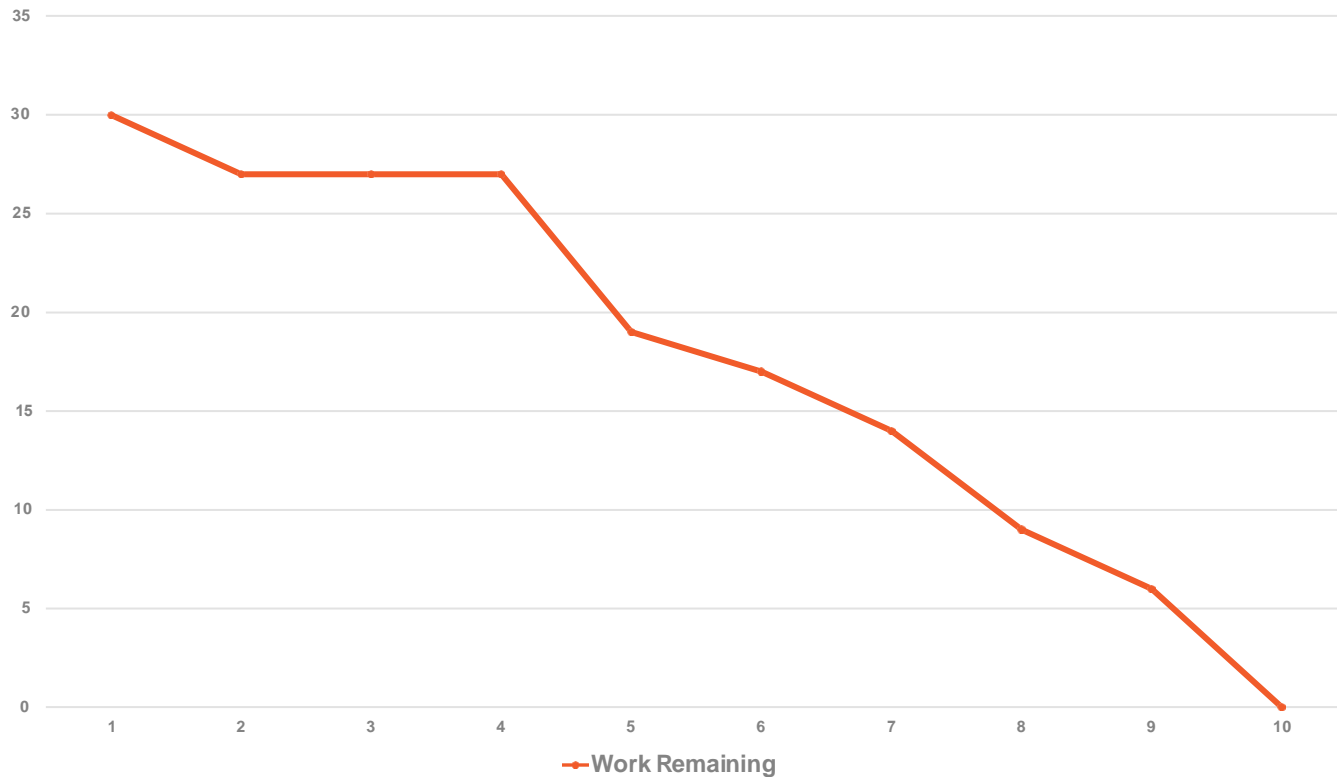


To Do	In Progress			Done
	Create	Document	Inspect	
     	   	 	  	   

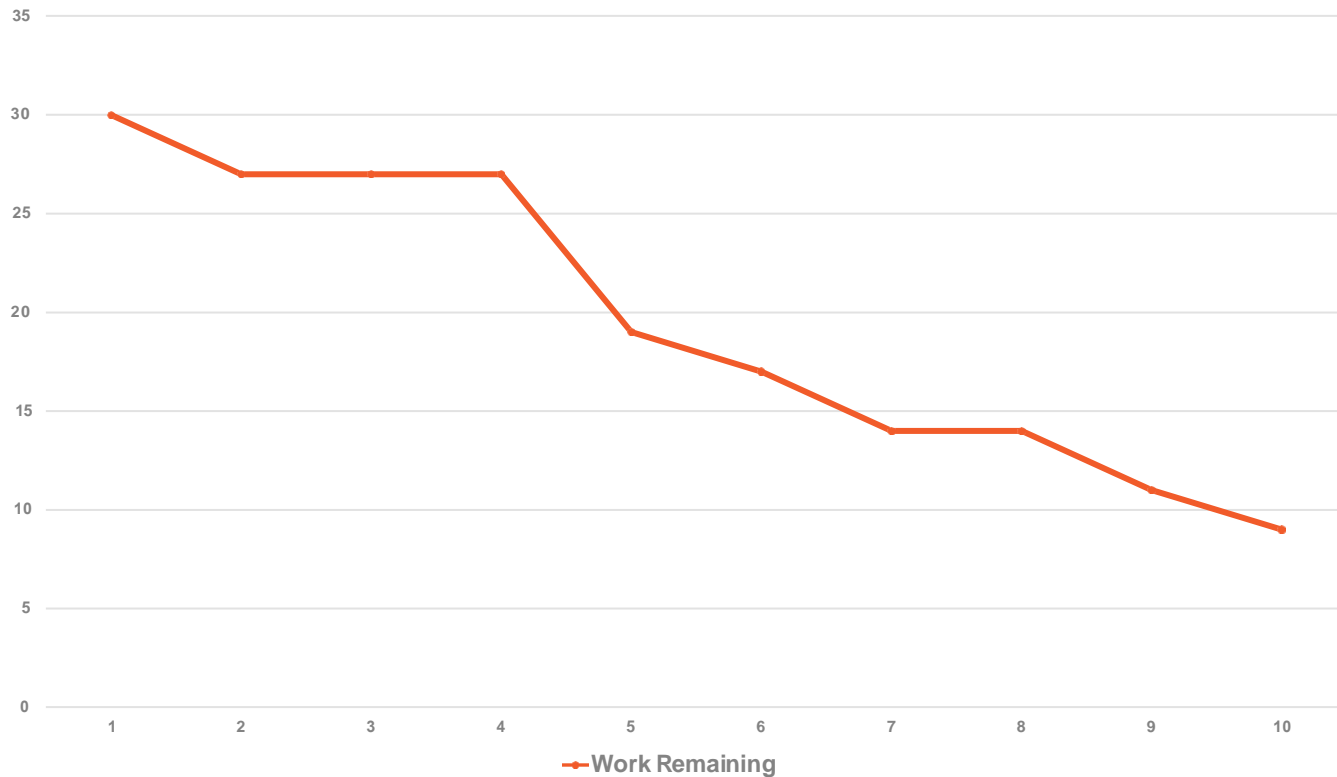
Charting Sprint Progress

- Pomaže timu da vizuelno prati da li je sprint na putu da isporuči inkrement na koji se obavezao
- Omogućava timu da blagovremeno reaguje na moguće probleme u toku sprinta

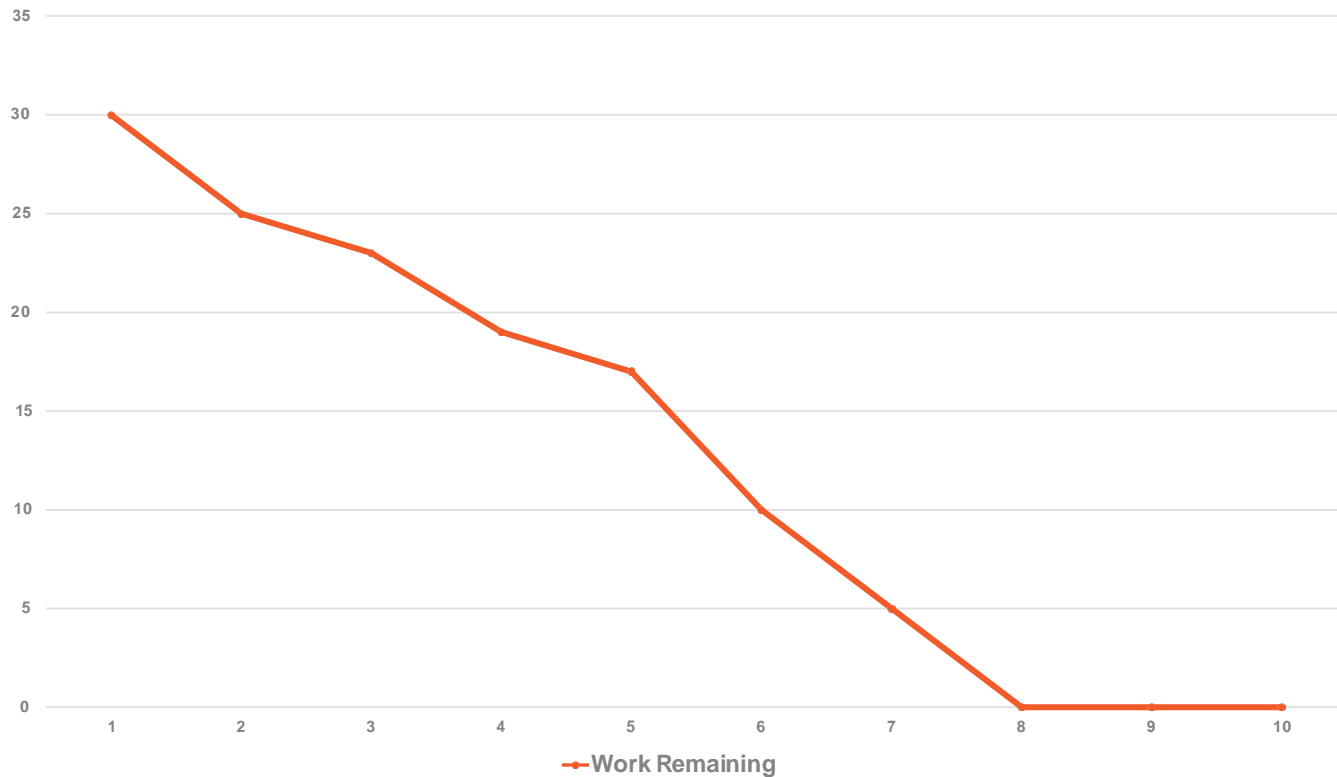
Burndown Chart



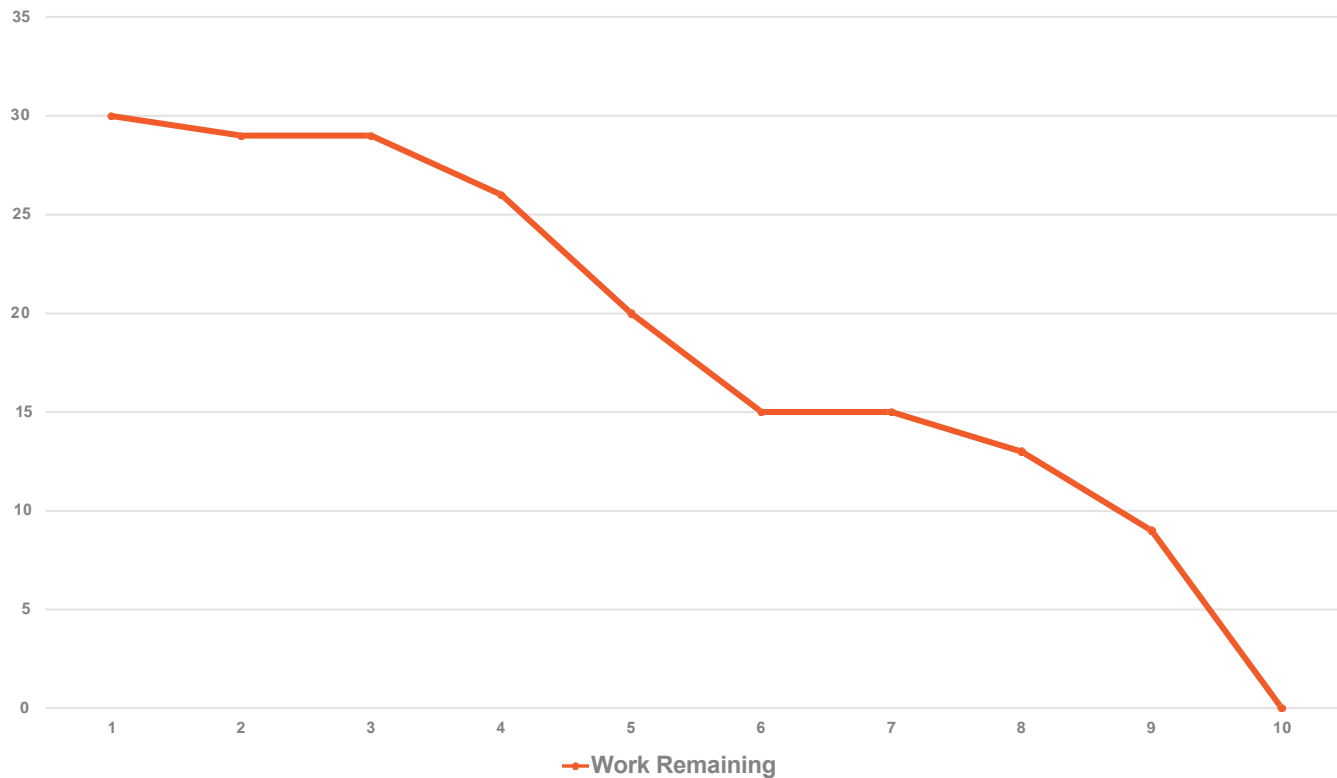
Burndown Chart - Overestimated



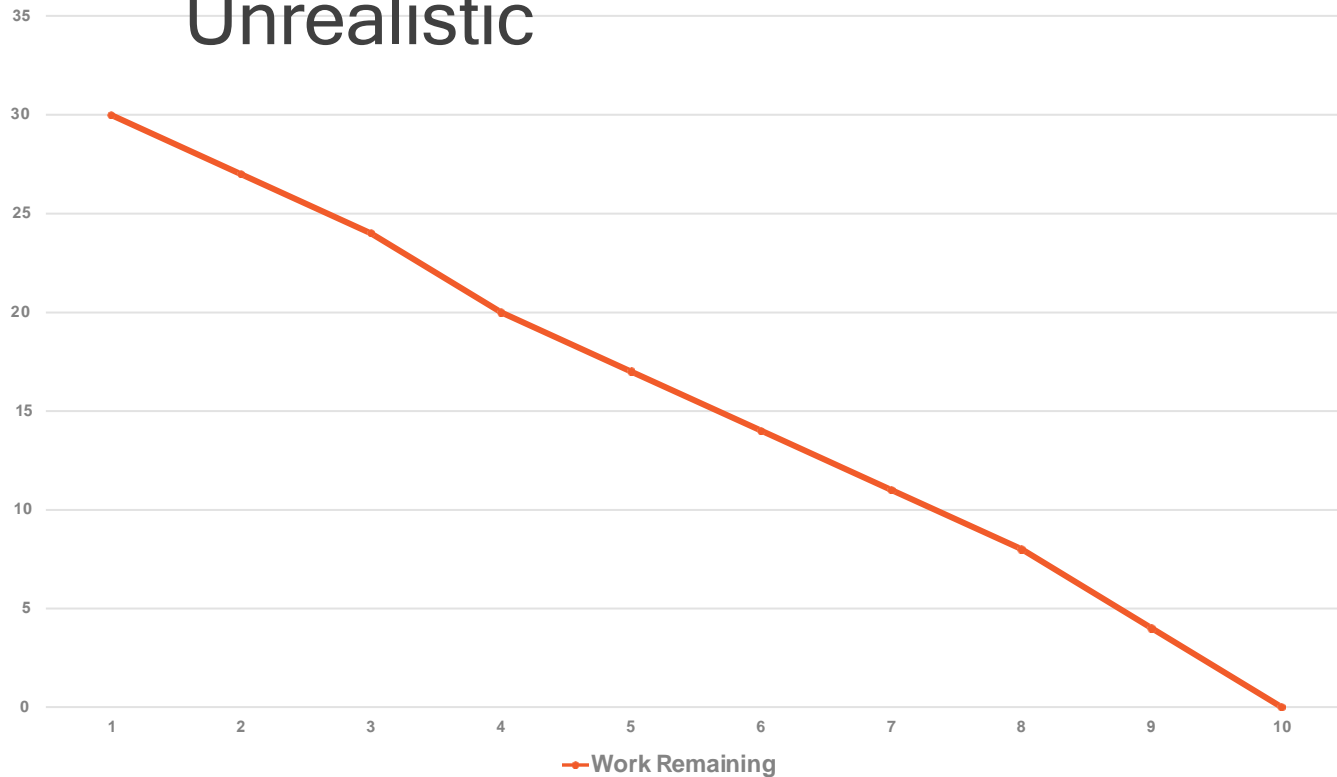
Burndown Chart - Underestimated



Burndown Chart - More Realistic



Burndown Chart - Unrealistic





¿ Questions ?