



**AGILE 2022** JULY 18-22  
**NASHVILLE**



Inger Dickson

How do I get more from User Stories?



User stories are at the heart of Agile product and service delivery. They are the basic building blocks that connect the “why” and the “what”, so the delivery team can create the “how”.

But what if this vehicle isn't carrying the meaning required to communicate effectively? What do we do if the dots aren't connecting and we aren't "getting it"?

This session is a safe space to bring user story doubts and curiosities, to explore what isn't working, and what just might.

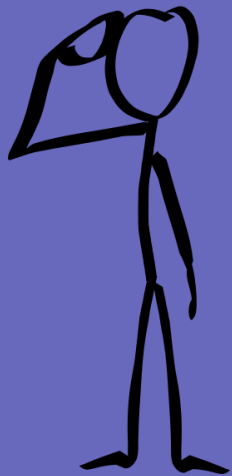
*Note: Some slides have been updated to include session discussion*

# Introduction

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A few introductory words before starting...

Hello



**Session Purpose**

Refresher on story principles,  
and diagnosing problems

A safe space to discuss  
doubts and curiosities

**“A safe space”**

No judgement, no criticism

“What happens here stays  
here”\*

*\*Please do take away and  
reuse any learning tho...*

# Introduction

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A few ir



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# What we'll cover

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What is a user story? What “isn’t” it?

User stories a unit: User story principles

Troubleshooting and Diagnostics

User stories as a collection: Telling the full story

Discussion

# What is a User Story? (& what isn't it?)

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Level set: what a user story is, and what it isn't

## “The 3 C’s”

- Card
- Conversation
- Confirmation

## It's a placeholder

- For the metrics: so **keep them**
- For the conversation: so **capture it**
- For what done looks like: so **clarify it**

## It's not:

- Perfect

# What is (& what

Level s

## “The 3 C’s”

- Card
- Conver
- Confirm



## It's not:

- Perfect

And needs change over time.

to keep

on: so

ks like:



# User stories as a unit: User story principles: INVEST

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- I** Independent
- N** Negotiable
- V** Valuable
- E** Estimatable
- S** Small
- T** Testable

User stories as a unit:

User story principles: INVEST

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# User stories as a unit:

## User story principles: INVEST

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# User stories as a unit:

## User story principles: INVEST

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❑ Do not overlap your stories in concept

❑ When sequencing the stories, find a natural order

Pay By Credit Card

Pay by MasterCard

Pay by Visa

Pay by Amex



Story order should not restrict your ability to re-prioritize

# User stories as a unit:

## User story principles: INVEST

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- ❑ Stories are negotiable ... and negotiated
- ❑ Your story is the essence of the requirement and not an explicit “contract” between business and development

**As a purchaser**  
**I want** the receipt to display the date and time in local and UTC  
**so that** I can maintain my records.



**As a purchaser**  
**I want** the receipt to indicate when I completed the purchase  
**so that** I can maintain my records.



“Conversation” is a good thing - both “too much” & “not enough” are smells...

# User stories as a unit:

## User story principles: INVEST

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- I Independent
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- E Estimatable
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- ❑ Valuable to the customer & understandable for all team members
- ❑ Framed from your users' perspective

As a developer  
I want a new table in the  
Orders DB to capture shipping  
information  
So that ???



As George\*  
I want to be able to specify my  
preferred shipping details  
so that I can ship to an address  
other than my billing address



\*"George", our team's customer persona



Does the story matter to the person or "entity" who would use it? If it doesn't, why do it?  
Systems can be "entities" too! Why not give them a persona as well?

# User stories as a unit:

## User story principles: INVEST

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- You should know when you are “done” and what is required to be “done” so you can make a guess about its relative size
- Keep story granularity consistent
- “Spike” stories that the team does not yet fully understand or that can be approached in multiple ways to minimize uncertainty and take more educated decisions

As a good world citizen  
**I want** world peace  
**so that** we can all live in  
harmony.



As a movie goer  
**I want** to pay by Paypal  
**so that** I don't have to use my  
credit card.



**Estimate in relative size - not time (a whole different talk topic....)**

# User stories as a unit:

## User story principles: INVEST

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- ❑ Stories should be small enough to be measured and tracked in a meaningful way
- ❑ Keep story descriptions short and concise

**As a movie goer**  
**I want** to be able to find and purchase movie tickets online **so that** I have something to do tonight.



**As a movie goer**  
**I want** to find a movie by title **so that** I can quickly locate the details of a movie I am interested in.



Stories should take days not weeks. “Relative size” & “time” are related, but not linear; see additional reading for more thoughts



# User stories as a unit: User story principles: INVEST

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*Finding right story size can be hard: trade-offs*

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*Advantages of larger*

Avoid splitting challenges

Perceived 'efficiencies'\*

Clearer business value

Easier to prioritize

Story sizes

*Advantages of smaller*

Accurate estimates

Planning flexibility

Measure of progress

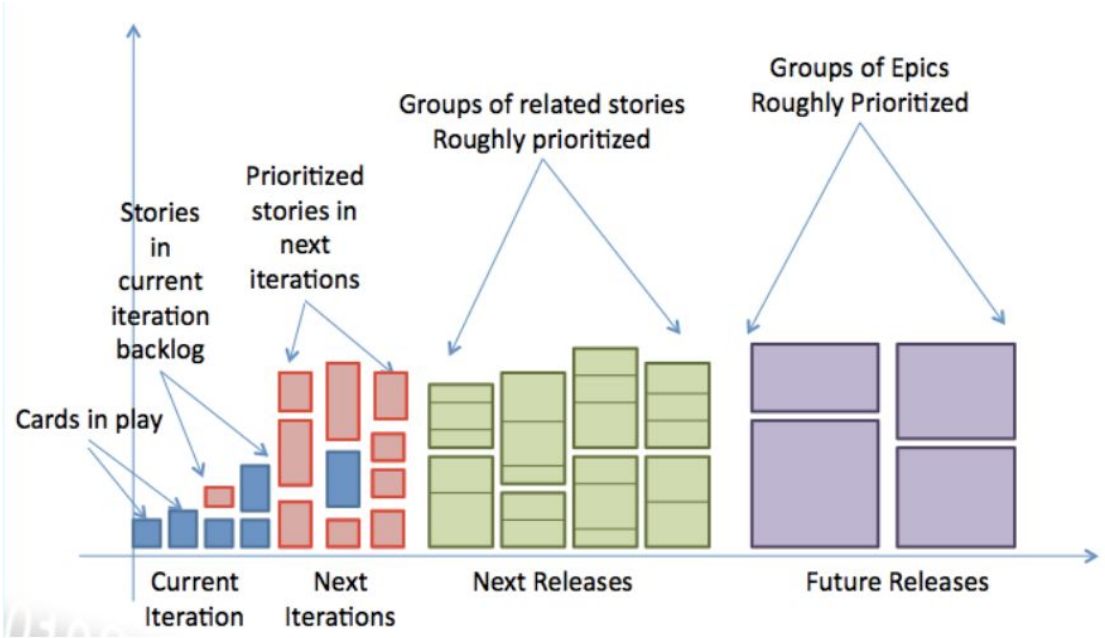
Understanding of scope

\* "Perceived Efficiencies" like: "Why kick off 5 stories when we can kick off just one?"

# User stories as a unit: User story principles: INVEST

Don't break down too soon - progressively elaborating is better

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# User stories as a unit: User story principles: INVEST

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## Some strategies in breaking ‘em down

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Workflow steps	Data entry methods
Business rules	Error handling
Major effort vs incremental effort	Spike vs implement
Simple vs complex	User roles
What you know vs what you don't	Expose risk
Operations (CRUD)	Defer performance or CFRs (the “-ilities”)

# User stories as a unit:

## User story principles: INVEST

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- ❑ In order for a story to be “confirmed” as complete, it needs to be testable
- ❑ Define acceptance criteria that are clear and precise so you know when you are done and have delivered value

A user must never have to wait too long for a screen to appear



New screens appear within 2 seconds 95% of time



# User stories as a unit: Template ideas

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- Value statement
- Context
- tldr: In / Out of scope
- Acceptance Criteria, such as:
  - BDD
  - Specification by Example

& maybe...

- Wireframes
- Assumptions
- Tech notes
- Quote of the day....

**Title:** <Do> this thing (action verb!)

**As** <persona>

**I want** <to accomplish this task>

**So that** <I get this value; achieve this higher goal; I can achieve this motivation>

**Given** <precondition; system state>

**When** <magic>

**Then** <post condition; new system state>

# User stories as a unit: Template ideas

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**Title:** <Do> this thing (action verb!)

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**Given** <precondition; system state>

**When** <magic>

**Then** <post condition; new system state>

*In practice, this might look like:*

**Brush my teeth**

**As** Inger

**I want** to brush my teeth

**So that** I maintain my dental health and avoid offending conversation partners with bad breath

**Given** unbrushed teeth

**When** I evenly distribute toothpaste to all teeth w a toothbrush for 120 seconds

**Then** teeth have 0 plaque

**AND** teeth have 0 bad breath germs

**In scope:** brushing with a soft-bristled, angled toothbrush

**Out of scope:** Flossing

# User stories as a unit: Troubleshooting and diagnostics

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## What are we hearing?

- 1) Who is isn't happy?
- 2) What are they saying?
- 3) What is the impact?
  - a) '5 whys': Why is it being said? Why is it a problem?
- 4) What INVEST principle is missing?
- 5) What can we do about it?

## ...& where from?

From people

From data

# User stories as a unit: Troubleshooting and diagnostics: examples

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Who	What	Impact	INVEST	What now? Consider:
IM	How do I sequence?	stalled or blocked cards	I	(Re)slicing so cards can move independently across the wall
BA/PO	This is not the product I need	lack of customer adoption	V	Are you using the right personas? Watching customer behavior or collecting feedback?
BA/PO	Takes too long to get what I need	missed deadlines or opportunities	N, S	Do the stories describe what is really needed at core? Are stories sliced as small as vertically possible?



# User stories as a unit: Troubleshooting and diagnostics: examples

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Who	What	Impact	INVEST	What now?
QA	I can't tell if this is done	Kickbacks, confusion	T	Invest in more thorough acceptance criteria - consider examples
QA	Cannot accomplish the value described in the card	Kickbacks, confusion	V, T	Reinforce the "value" the card brings; consider splitting the card, or more specific test criteria
Dev	I don't know when I'm done	Stalled cards, confusion	T	Consider BDD and example test cases
Dev	No clue how to approach this	stalled cards, kickbacks	S, E	Slice smaller cards so they can be estimated

# User stories as a unit: Troubleshooting and diagnostics: examples

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Who	What	Impact	INVEST	What now?
Data	Long WIP	Cards stay in flight a long time, stalling value delivery	S	Smaller slices
Data	High kickback count		N, S, T	Consider negotiating smaller increments and example test cases
Data	High lead time	Card is never really "ready"	N, V, S, T	Reconsider the "why" of the card, negotiating to a smaller of size of what is known, if possible. Consider the definition of "Ready". Lean on examples for acceptance criteria

# User stories as a unit: Troubleshooting and diagnostics: Exercise

Who	What	Impact	INVEST	What now?

## Exercise! Has your team come to you with a problematic story?

- Who has the problem?
- What is it?
- What is the impact it has on the team or the process?
- What INVEST principle might be missing?
- What can you do about it?



# User stories as a unit: Some thoughts

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- Start with INVEST, balance on what would help the team
- Start with a template
- Build trust - in each other, in the process, build a shorthand
- Retrospect, adjust, and move on

# User stories as a collection: Telling the story

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Unleashing the power of user stories to ...tell a story.

- User journey mapping
- Epic Maps
- Release planning

*User stories are like bones. Individually they're important. And as a collection, like a skeleton, they're even more powerful.*

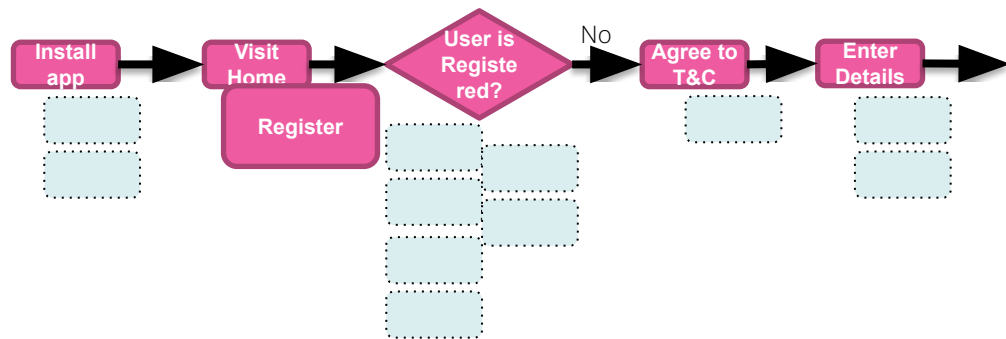


# User stories as a collection: Telling the story: User Journey

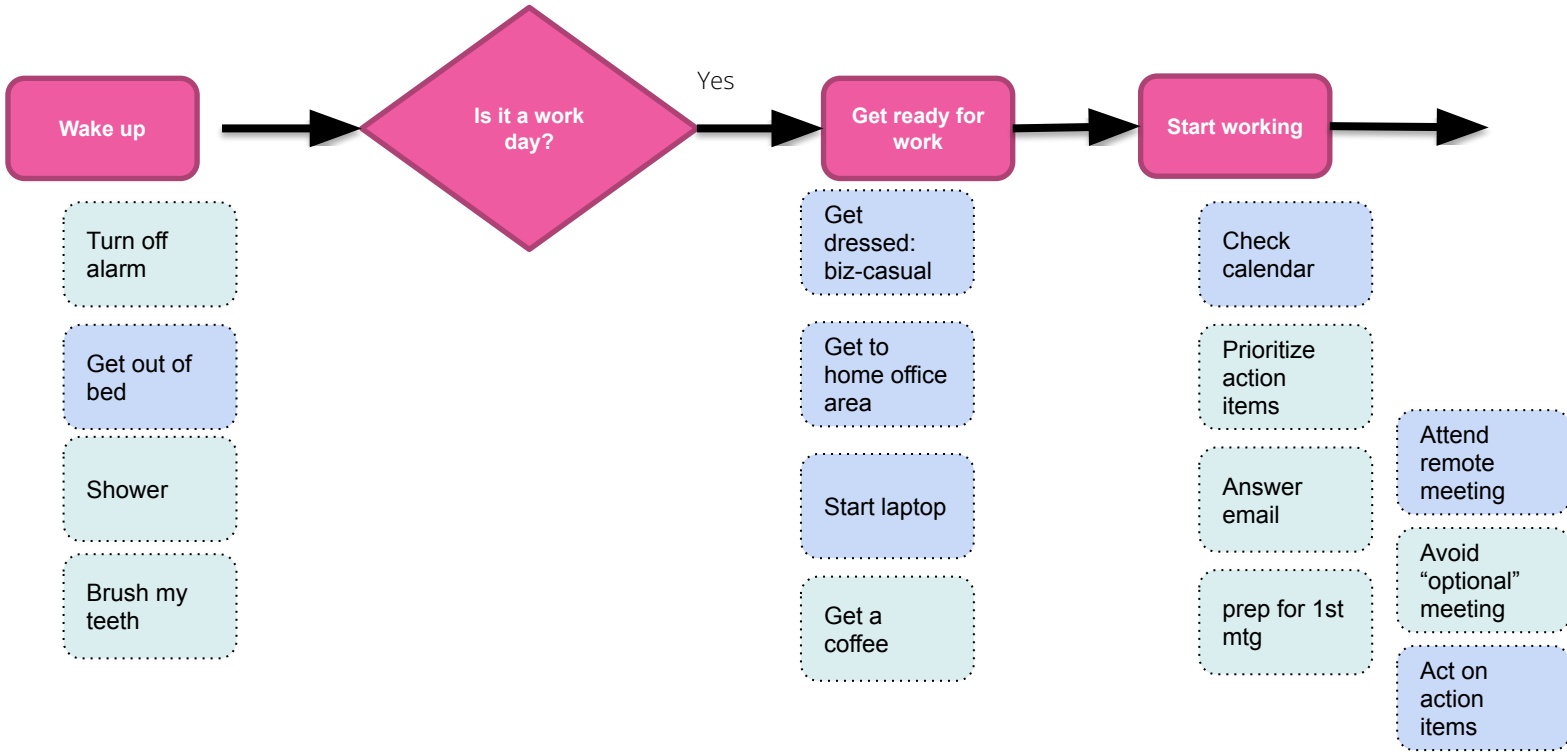
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## User journey mapping

- How does someone using the system to accomplish a task move through it?
- What stories support this journey?



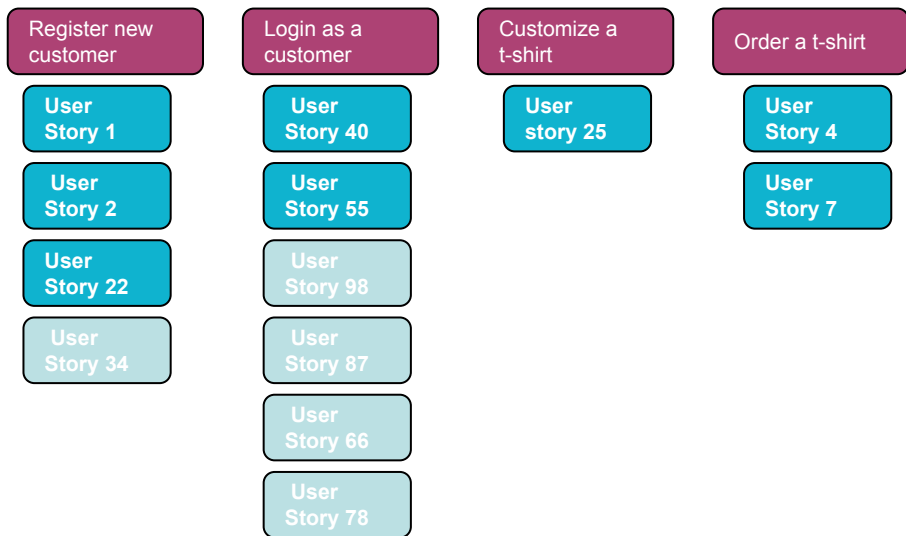
# User stories as a collection: User Journey: Everyday Example



# User stories as a collection: Telling the story: Epic Maps

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- What large groups of stories, or epics, are involved?
- What stories break that epic into achievable units of work?





# User stories as a collection: Epic Map: Everyday example

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## Wake up

Get out of bed

Shower

Brush my teeth

Turn off alarm

## Get ready for work

Get dressed:  
biz-casual

Get to home office area

Start laptop

Get a coffee

## Start working

Check calendar

Attend remote meeting

Act on action items

Prioritize action items

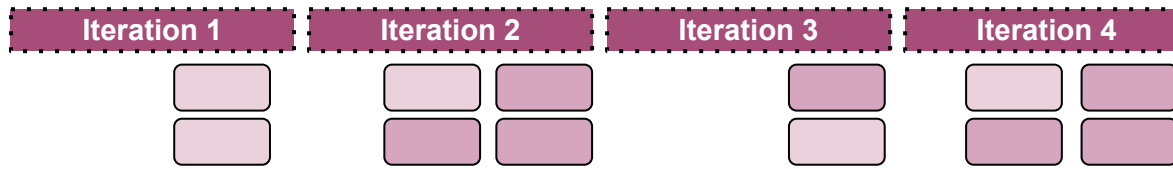
prep for a mtg

Answer email

Avoid "optional" meeting

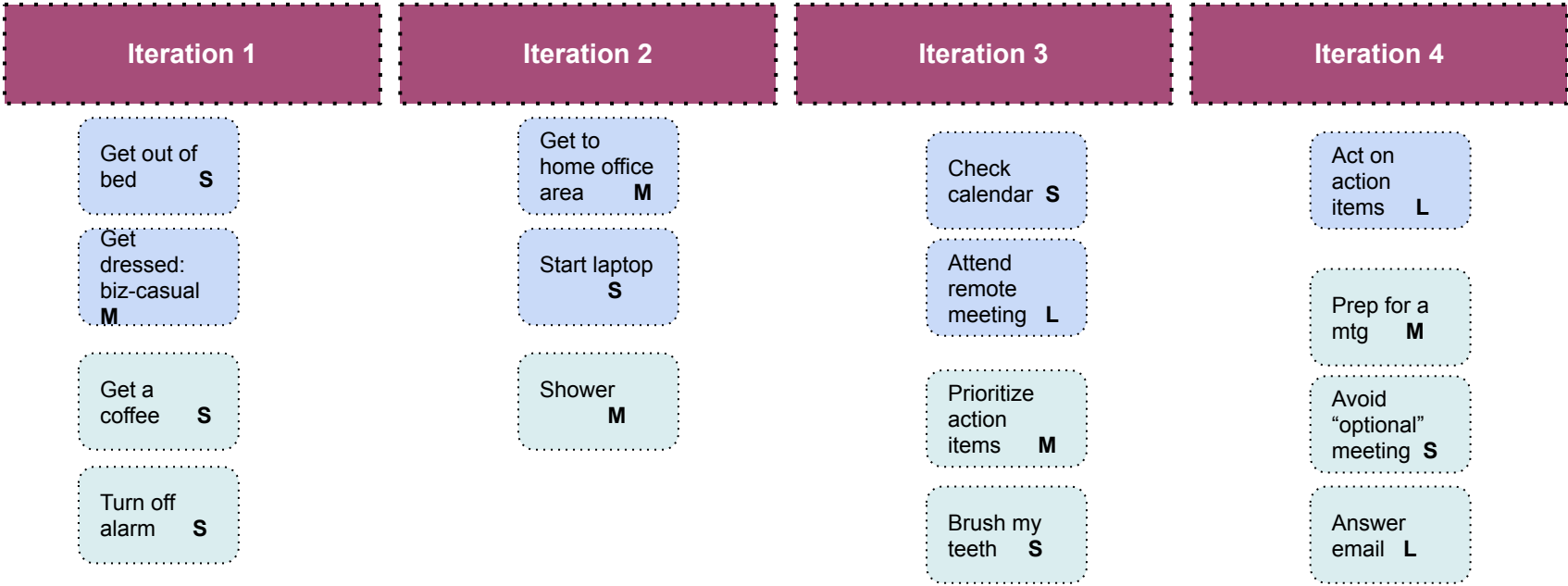
# User stories as a collection: Telling the story: Release Planning

- What stories from which iterations go into a release?  
Which don't? Toggles?



- When do they go to production, and what process do they follow to get there?

# User stories as a collection: Release Planning: Everyday example



# Discussion: Let's talk

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- What aren't your user stories doing for you?
- What problems has your team, or others, shared?
- Have you observed any patterns?

## In Summary:

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**User stories are at the heart of Agile product and service delivery.** When they are failing to pull the pieces together, there's a reason.

### **Take a step back to the basics:**

- Diagnose by identifying the source of the issue, what the problem appears to be, and what the impact of that problem is.
- Determine what **INVEST** principles are missing

**Tell the story** as a collection in context.

& Remember: **there's no "perfect"**; there's what is working best "right now".

A team's needs will change over time. Inspect, adapt, and move on.

***"INVEST" in your  
User Stories!***

# In Summary: The principles in service:

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- *The highest priority is to satisfy the customer through early and continuous delivery of valuable software.*
- *Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.*
- *Business people and developers must work together daily throughout the project.*
- *The most efficient and effective method of conveying information to and within a development team is face-to-face conversation. If not, use a placeholder*

- Brad Ward, Tw  
- Mike Cohn



Thank you

Inger Dickson

Feedback for me? Please share here: <https://bit.ly/3OgKPi0>



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# Recommended reading

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Inger Dickson (2020) ["No Estimates" is not the \(only\) answer, or: moving toward predictability](#)

John Ferguson Smart (2014) [BDD in Action](#) (Behavior Driven Development)

Gojko Adjic (2011) [Specification by Example](#)

Kruger, C (2009) [Writing Effective User Stories](#)

Lawrence, R (2009) [Patterns for Splitting User Stories](#)

Sutherland, J (2007) [User Stories Done Right](#)

Esther Derby, Diane Larsen (2006) [Agile Retrospectives](#)

Cohn, M (2005) [Agile Estimation and Planning](#); (2004) [User Stories Applied](#);

Wake, B (2003) [INVEST in Good Stories, and SMART Tasks](#)



Slide	Image source
Introduction	<a href="https://toyswonderland.com">toyswonderland.com</a>
What user stories are and aren't	<a href="https://mariascrivan.com">mariascrivan.com</a> ; <a href="https://gocomics.com/half-full">gocomics.com/half-full</a>
Prioritizing INVEST	<a href="https://www.pinterest.com/pin/312437292909260360/">https://www.pinterest.com/pin/312437292909260360/</a> <a href="https://www.dreamstime.com/illustration/man-cries-tears.html">https://www.dreamstime.com/illustration/man-cries-tears.html</a>
User stories as a collection	<a href="https://www.moceanic.com/2019/arts-culture-fundraising/">https://www.moceanic.com/2019/arts-culture-fundraising/</a>
Story Template	<a href="#">Amazon: Techmisse index cards</a>
Exercise	<a href="#">Etsy: "Little Moss"</a>