



# User Stories

Mike Cohn

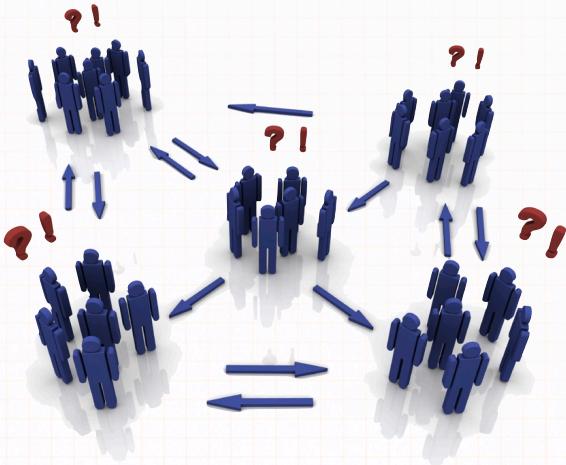
Norwegian Developer's Conference

6 June 2014

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## What problem do stories address?

- Software requirements is a communication problem
- Those who want the software must communicate with those who will build it



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# Balance is critical

- If either side dominates, the business loses
- If the business side dominates...
  - ...functionality and dates are mandated with little regard for reality or whether the developers understand the requirements
- If the developers dominate...
  - ...technical jargon replaces the language of the business and developers lose the opportunity to learn from listening



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# Resource allocation

- We need a way of working together so that resource allocation becomes a shared problem
- Project fails when the problem of resource allocation falls too far to one side



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# Responsibility for resource allocation

## If developers are responsible...

- May trade quality for additional features
- May only partially implement a feature
- May solely make decisions that should involve the business

## If the business is responsible...

- Lengthy upfront requirements negotiation and signoff
- Features are progressively dropped as the deadline nears



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# Imperfect schedules

- We cannot perfectly predict a software schedule
  - As users see the software, they come up with new ideas
  - Too many intangibles
  - Developers have a notoriously hard time estimating
- If we can't perfectly predict a schedule, we can't perfectly say what will be delivered



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# So what do we do?

We make decisions based on the information we have

...but do it often

This is where user stories come in

Rather than making one all-encompassing set of decisions

...we spread decision-making across the project



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## Agenda

- What stories are
- Writing user stories
- Why user stories



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# Three Cs

## Card

- Stories are traditionally written on note cards.
- Cards may be annotated with estimates, notes, etc.

## Conversation

- Details behind the story come out during conversations with product owner

## Confirmation

- Acceptance tests confirm a story was coded correctly



Source: XP Magazine 8/30/01, Ron Jeffries.

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## Samples from a travel website

As a user, I want to reserve a hotel room.

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

As a user, I want to cancel a reservation.

As a frequent flyer, I want to rebook a past trip so that I save time booking trips I take often.



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# Where are the details?

- As a user, I can cancel a reservation.
  - Does the user get a full or partial refund?
    - Is the refund to her credit card or is it site credit?
  - How far ahead must the reservation be cancelled?
    - Is that the same for all hotels?
    - For all site visitors? Can frequent travelers cancel later?
  - Is a confirmation provided to the user?
    - How?



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## Details as conditions of satisfaction

As a user, I can  
cancel a reservation.

- The product owner's conditions of satisfaction can be added to a story
- These are essentially tests

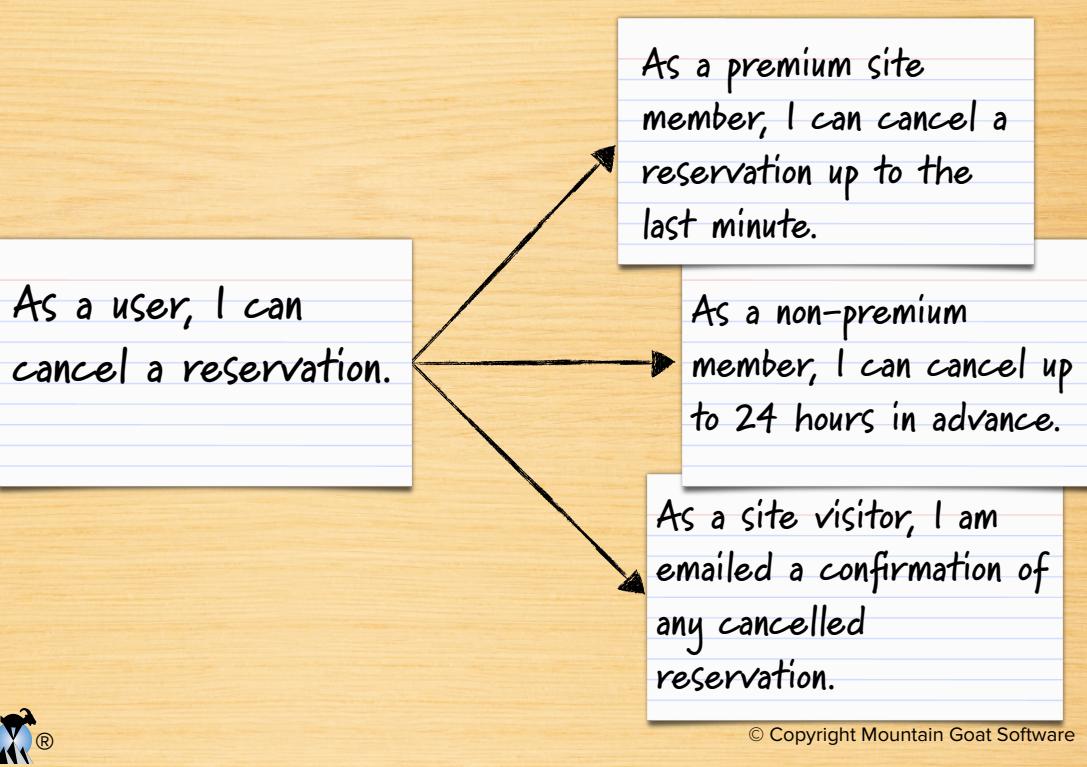
- Verify that a premium member can cancel the same day without a fee.
- Verify that a non-premium member is charged 10% for a same-day cancellation.
- Verify that an email confirmation is sent.
- Verify that the hotel is notified of any cancellation.



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## Details added in smaller sub-stories



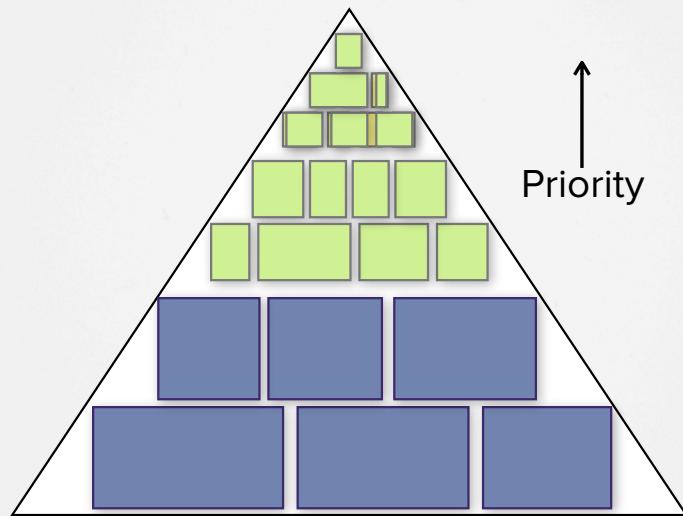
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## Techniques can be combined

- These approaches are not mutually exclusive
- Write stories at an appropriate level
- By the time it's implemented, each story will have conditions of satisfaction associated with it

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# The product backlog iceberg



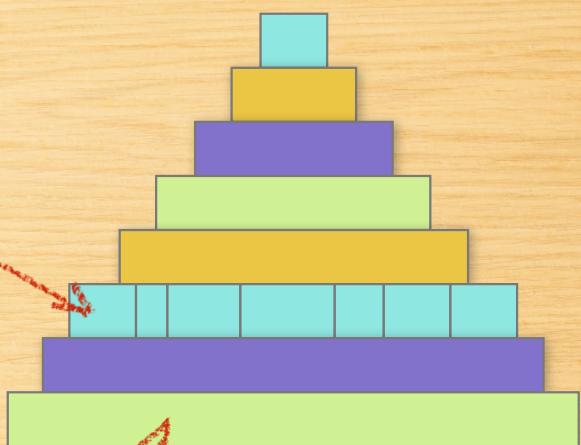
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## Some additional useful terms

### Theme

A collection of related user stories



### Epic

A large user story



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# An example

As a VP Marketing, I want to review the performance of historical promotional campaigns so that I can identify and repeat profitable ones.

Clearly an epic

As a VP Marketing, I want to select the timeframe to use when reviewing the performance of past promotional campaigns, so that ...

Epics???

As a VP Marketing, I can select which type of campaigns (direct mail, TV, email, radio, etc.) to include when reviewing the performance of past ...



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As a VP Marketing, I want to see information on **direct mailings** when reviewing historical campaigns.

As a VP Marketing, I want to see information on **TV ads** when reviewing historical campaigns.

As a VP Marketing, I want to see information on **email ads** when reviewing historical campaigns.



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# Agenda

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- Writing user stories
- Why user stories



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## Logging in

- See how many user stories you can write about logging in.
- Examples:
  - As a registered user, I am required to log in so that I can access the system.
  - As a forgetful user, I can request a password reminder so that I can log in if I forget mine.

“As a <user role>,  
I <want/need/can/  
etc> <goal>  
so that <reason>.”



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# Story-writing workshops

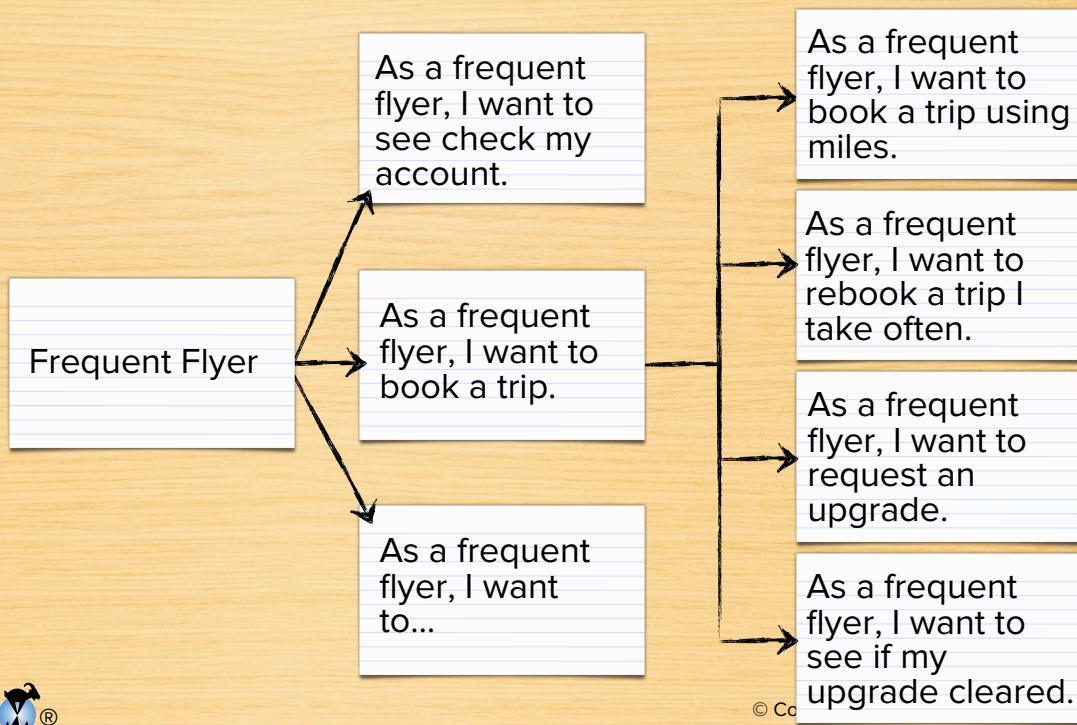
- Includes whole team plus possibly some external stakeholders
- Typically not done every sprint
- Brainstorm to generate stories
- Goal is to write as many stories as possible
  - Some will be “implementation ready”
  - Others will be epics
- No prioritization at this point



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## Start with epics and iterate



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# Agenda

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## So why user stories?

- Shift focus from writing to talking

If requirements are written down

then

The user will get what she wants

"You built what I asked for, but it's not what I need."

At best she'll get what was written



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# Words are imprecise

Entrée comes  
with  
soup or salad  
and bread.

Which is right?

- (Soup or Salad) and Bread
- (Soup) or (Salad and Bread)



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## Examples

The user can enter a name. It can be 127 characters.

- Must the user enter a name?
- Can it be other than 127 chars?

The system should prominently display a warning message whenever the user enters invalid data.

- What does should mean?
- What does prominently display mean?
- Is invalid data defined elsewhere?



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# Additional reasons

- Stories are understandable
  - Developers and customers understand them
  - People are better able to remember events if they are organized into stories<sup>†</sup>
- Support and encourage iterative development
  - Can easily start with epics and disaggregate closer to development time

<sup>†</sup>Bower, Black, and Turner. 1979.  
*Scripts in Memory for Text.*



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# Yet more reasons

- Stories are the right size for planning
- Stories support opportunistic development
  - We design solutions by moving opportunistically between top-down and bottom-up approaches<sup>†</sup>
- Stories support participatory design

<sup>†</sup>Guindon. 1990. *Designing the Design Process.*



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# What if we had stories instead?



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## Most importantly...

**Don't forget the purpose**

The story text we write on cards is less important than the conversations we have.



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# FrontRowAgile.com

The screenshot shows the homepage of FrontRowAgile.com. At the top, there's a navigation bar with links for "Sign In" and "Create Account", a shopping cart icon labeled "CART", and menu items "Courses", "Instructors", and "FAQ". The main header features a red armchair icon and the text "Front Row Agile". Below this, a large banner with a green background and a grid of seats says "Get the best seat in the class". It includes three icons: a play button labeled "LEARN with agile training videos", a checklist labeled "PROGRESS through online quizzes", and a ribbon labeled "EARN certificates, PDUs and SEUs". A yellow sticky note on the left side of the banner contains the text "Online video training". Below the banner is a red button labeled "GET STARTED TODAY! >". Underneath, there's a section titled "Take a look at some courses" with three course cards: "Agile Estimating and Planning with Mike Cohn" (coming soon), "The Scrum Field Guide Online with Mitch Lacey" (coming soon), and "Scrum Repair Guide with Mike Cohn". The bottom right corner of the page has a copyright notice: "© Copyright Mountain Goat Software".

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This screenshot displays contact information for Mike Cohn. It includes his email (mike@mountaingoatsoftware.com), website (www.montaingoatsoftware.com), Twitter handle (@mikewcohn), and phone number (720) 890-6110. To the left, there are images of three books by Mike Cohn: "User Stories Applied for Agile Software Development", "Agile Estimating and Planning", and "Succeeding with Agile: Software Development Using Scrum". To the right is the Mountain Goat Software logo, which consists of a stylized mountain goat head and the company name "MOUNTAIN GOAT SOFTWARE". The bottom right corner of the page has a copyright notice: "© Copyright Mountain Goat Software".

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