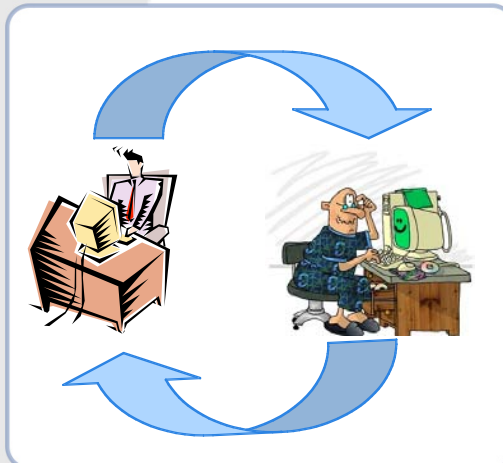# User Stories

Mike Cohn

19 June 2009

1

What problem do stories address?

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

2

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

3

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

4

Responsibility for resource allocation

If developers shoulder the responsibility...

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

If the business shoulders the responsibility...

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

5

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

6

So what do we do?

We make decisions based on the information we have

...but do it often

Rather than making one all-encompassing set of decisions

...we spread decision-making across the project

This is where user stories come in

What Stories Are

Ron Jeffries' 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 the story was coded correctly |

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

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9

Samples from a travel website

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

As a vacation planner, 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?

Details as conditions of satisfaction

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

As a user, I can cancel a reservation.

☐ 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.

Details added in smaller sub-stories

As a premium site member, I can cancel a reservation up to the last minute

As a user, I can cancel a reservation.

As a non-premium member, I can cancel up to 24 hours in advance.

As a site visitor, I am emailed a confirmation of any cancelled
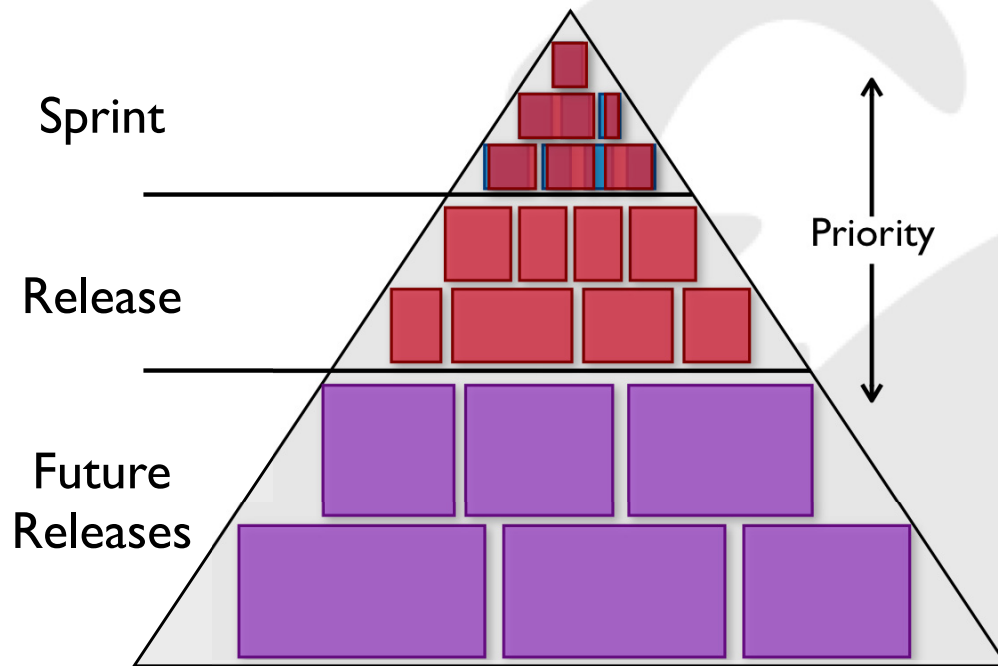
13

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
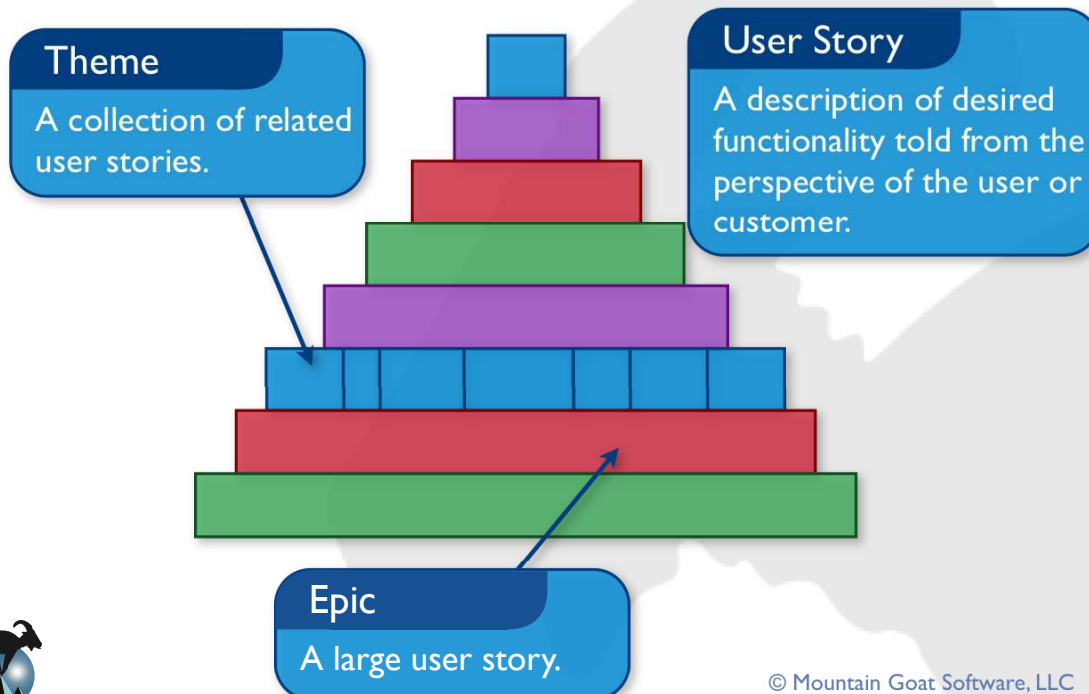
14

The product backlog iceberg

Sprint

Release

Future
Releases

Priority

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15

Stories, themes and epics

Theme
A collection of related user stories.

User Story
A description of desired functionality told from the perspective of the user or customer.

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 I can identify and repeat profitable ones.

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 historical promotional campaigns.

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An example

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 television advertising when reviewing historical campaigns.

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

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18

Writing Stories

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

Use this template
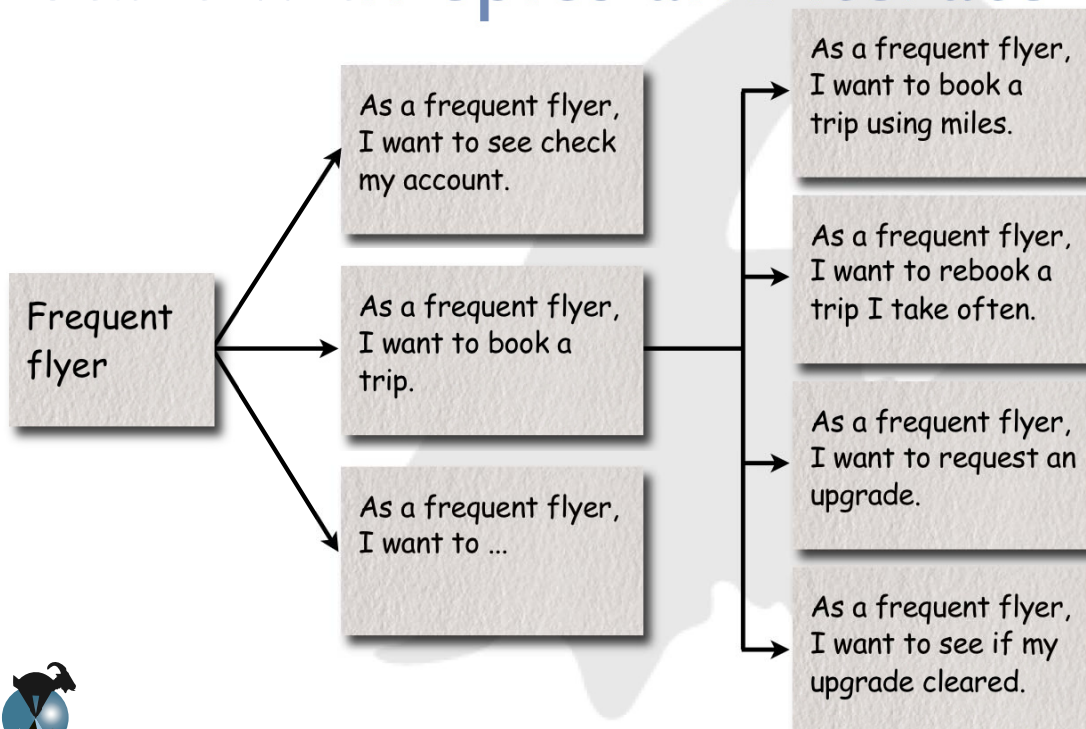
"As a <type of user>, I want to <goal>, so that <reason>."

Story-writing workshops

- Includes developers, users, customer, others

- 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

Start with epics and iterate

```
Frequent
flyer
```
→ As a frequent flyer, I want to see check my account.

→ As a frequent flyer, I want to book a trip.

→ As a frequent flyer, I want to ...

As a frequent flyer, I want to book a trip. →
- As a frequent flyer, I want to book a trip using miles.
- As a frequent flyer, I want to rebook a trip I take often.
- As a frequent flyer, I want to request an upgrade.
- As a frequent flyer, I want to see if my upgrade cleared.

Why User Stories

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23

1

Stories shift the focus from writing to talking.

If requirements are written down → then → ~~The user will get what she wants~~

At best she'll get what was written

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

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Words are imprecise

Main dish comes with soup or salad and bread.

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

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?

2 Stories are equally understandable by developers and customers.

3 Stories support and encourage iterative development.

4 Stories are the right size for planning.

5 Stories support participatory design.

---

6 Stories emphasize the user's goals not the system's attributes.

What are we building?

1. The product shall have a gas engine.
2. The product shall have four wheels.
   2.1. The product shall have a rubber tire mounted to each wheel.
3. The product shall have a steering wheel.
4. The product shall have a steel body.

Source: Adapted from *The Inmates are Running the Asylum* by Alan Cooper (1999).

What if we had stories instead?

Most importantly...

Don't forget the purpose

The story text we write on cards is less important than the conversations we have.
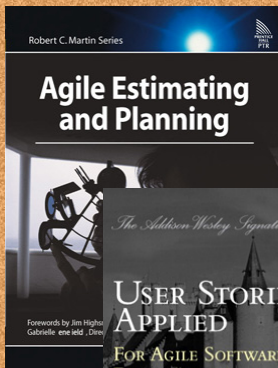
Upcoming classes in Oslo

Date	What
22–23 June	Certified Scrum Product Owner
24–25 June	Certified ScrumMaster
12–14 October	Certified ScrumMaster (three-day)
15–16 October	Certified Scrum Product Owner
18–20 January	Certified ScrumMaster (three-day)
21–22 January	Certified Scrum Product Owner

Information and registration at
www.programutvikling.no

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