



Agile Estimating

Mike Cohn

Norwegian Developer's Conference
6 June 2014

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Agenda

- What is agile planning?
- Story points
- Ideal time
- Estimating with Planning Poker



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Product Backlog

As a user...	3
As a user...	5
As a user...	5
As a user...	2
As a user...	2

Iteration Backlog

Code the UI	12
Write tests	8
Code middle tier	4
Update docs	6
A We're talking about these right now	5

A red arrow points from the bottom of the Product Backlog table to the top of the Iteration Backlog table. A yellow sticky note is pinned to the bottom right of the Iteration Backlog table.

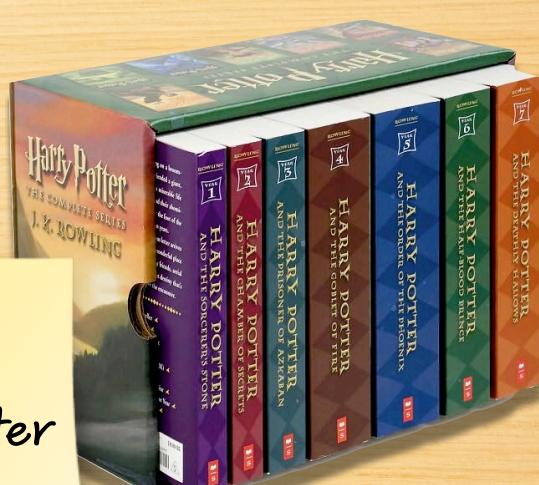
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How long will it take...

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...to drive to Paris?

...to read the last Harry Potter book?



The image shows a row of seven Harry Potter books standing upright on a shelf. From left to right, the titles are: Harry Potter and the Philosopher's Stone, Harry Potter and the Chamber of Secrets, Harry Potter and the Prisoner of Azkaban, Harry Potter and the Goblet of Fire, Harry Potter and the Order of the Phoenix, Harry Potter and the Half-Blood Prince, and Harry Potter and the Deathly Hallows. The books are arranged in a slightly staggered pattern, with the first book being the tallest and the last book being the shortest.

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Estimate size; derive duration

Size

Calculation

Duration

300
kilograms

Velocity
=20

$300/20 = 15$
iterations



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Measures of size

Traditional
measures
of size

Lines of Code
Function Points

Agile
measures
of size

Story points
Ideal days



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Story points

- How long a user story will take (effort)
- Influenced by complexity, uncertainty, risk, volume of work, etc.
- Relative values are what is important:
 - A login screen is a 2.
 - A search feature is an 8.
- Basic math properties should hold
 - $5+5 = 10$



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Estimating in zoo points



Lion
Kangaroo
Rhinoceros
Bear
Giraffe
Gorilla
Hippopotamus
Tiger



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Ideal Time

How long something will take if:

- it's all you work on
- no one interrupts you
- and everything you need is available



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Elapsed time vs. ideal time

Ideally

- Monday has 8 hours
- Each week has 40 hours

But instead

- Each day has something like:
- 2 hours of meetings
 - 2 hours of email
 - 4 hours left for the project

"How long will this take?"

- Are you answering what is being asked?

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Two big advantages to story points

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Story points are additive; time-based estimates may not be

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Story points help avoid problems with unit confusion

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Confusing units

Product Backlog

As a user...	30
As a user...	50
As a user...	50
As a user...	20
As a user...	20

Iteration Backlog

Code the UI	12
Write tests	8
Code middle tier	4
Update docs	6
Automate tests	5



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Planning Poker®



- An iterative approach to estimating
- Steps
 - Each estimator is given a 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 at the same time
 - Discuss differences (especially outliers)
 - Re-estimate until estimates converge



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Planning Poker®—an example



Estimator	Round 1	Round 2
Ana	5	8
Trond	5	8
Maria	8	8
Johannes	20	13



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Estimate these

Product Backlog Items	Estimate
Read (and understand) a high-level, 10-page overview of agile software development in a celebrity news magazine.	
Read (and understand) a densely written 5-page research paper about agile software development in an academic journal.	
Your uncle owns a clock store and wants to sell clocks over the internet. Write a basic product backlog for him covering what he'll need his website to do.	
Recruit, interview, and hire a new member for your team.	
Create a 60-minute presentation about agile software development for your coworkers.	
Wash and wax your boss' Porsche.	
Read (and understand) a 150-page book on agile software development.	
Write a 5-page summary of this conference for your boss.	



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www.PlanningPoker.com

The screenshot shows a web browser window for 'Payroll system replacement [Planning Poker]'. The page displays a list of user stories with estimation fields:

- As a/an unauthenticated user I would like to log in so that I can start using the application
Estimate: 3
- As a/an authenticated user I would like to change my password
Estimate: 3
- As a/an admin I would like to add new users so that they can log in
How are they going to get their username and password?
Estimate: 5

Below the estimates are five red boxes containing the numbers 3, 3, 5, 13, and 20, with names underneath: Thijs V., Manfred S., Mike C., Giel N., and Angie. Below these are four smaller red boxes with icons and names: Manfred S., Thijs V., Giel N., and Mike C. A 'Complete' button is at the bottom left, and a note says '(Note: Completes automatically when all estimates are in)'.

On the right side of the screen, there are sections for 'All games', 'Estimator access (Lock)', 'Countdown timer', 'Done playing?', 'Participants' (listing Angie, Giel de Nijls, Manfred Stienstra, Mike Cohn, and Thijs van der Vossen (moderator)), and a note about exporting estimates as HTML or CSV.

Free, or I wouldn't mention it



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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 white text 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'. To the left of the banner, a yellow sticky note 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', 'The Scrum Field Guide Online with Mitch Lacey' (marked as '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 and three of his books. On the left, a green box contains 'Mike Cohn' and his email 'mike@mountaingoatsoftware.com'. Below that are his website 'www.mountaingoatsoftware.com', his Twitter handle 'twitter: mikewcohn', and his phone number '(888) 61-AGILE'. To the right is the Mountain Goat Software logo, which features a stylized goat jumping over a blue circle. Below the contact info are three book covers from the Addison Wesley Signature Series:

- USER STORIES APPLIED FOR AGILE SOFTWARE DEVELOPMENT** by MIKE COHN, Foreword by Kent Beck. This book is part of the Robert C. Martin Series.
- Agile Estimating and Planning** by MIKE COHN. This book is part of the Robert C. Martin Series.
- SUCCEEDING WITH AGILE** by MIKE COHN. This book is part of the Addison Wesley Signature Series.

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