

User Story Splitting



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Why should you care?

Increases
predictability

Teams go
faster

Less Waste

More Options
for PO



Outline



Recap

“An Invitation to a Conversation” – Alistair Cockburn

Card, Conversation, Confirmation – Ron Jeffries

As <user role> I want to <do something>
so that <value statement>

INVEST Criteria

- Independent
- Negotiable
- Valuable
- Estimatable
- Sized Appropriately
- Testable

Emphasize the 'N' in negotiable. It goes both ways, sometimes the team has to ask the PO to make changes in the story based on what they discover. Sometimes the PO has to remind the team to reign in their efforts mid sprint if they've drifted beyond the goal.

An individual story may not represent enough new value to be worth shipping i.e. being able to find books on Amazon without being able to buy them.

Appropriately sized means right for the current context. So Epics for stories that are a long way off and smaller stories for things that the team will on soon. For things that are to be worked on soon anything larger than 2 people (i.e. collaboration) in half the sprint is too big. At the other end of the scale a person in one day is more like a task.

Samples

- As frantic parent I want to search only childrens books so that I can find Magic School Bus Books without sifting through other literature
- As a frequent Amazon user I want Amazon to remember my address so that I don't have to retype it
- As a book addict I want to search for the latest book by Alistair Cockburn so that I can buy it right away

Acceptance Criteria

- As frantic parent I want to search only childrens books so that I can find Magic School Bus Books without sifting through other literature
 - 213 Books are returned
 - The first book is: [The Magic School Bus Inside the Human Body](#) by [Joanna Cole](#) and Bruce Degen
 - Second book is: [The Magic School Bus on the Ocean Floor](#) by [Joanna Cole](#) and Bruce Degen

Epics



Epics are appropriately sized large stories that are further out on the team's path. The product owner is responsible for breaking these stories down ~4 sprints ahead of the team. Epics can be retained and used to help keep track of the stories they spawned.

Problems



-Large Stories are hard to complete in a single iteration

Product Owner



Handing a Product Owner a larger Story or worse a Use Case is akin to handing them a butchers knife. The PO needs a scalpel to trim little details out of the product backlog, ensuring that the development really are focused on only the highest value work.

Finished?



Large Stories are hard to complete in a single iteration

Flexibility



Tie your product owner in knots, limiting their ability to prioritize work.

Details



Large stories make it easier to get lost in the details, miss the estimate. Small Stories provide focus and short horizon for the team.

Handoff



When you still have development to test handoffs (i.e. before you start doing [ATDD](#) (Acceptance Test Driven Development)), smaller stories enable more frequent handoffs and allow test to work on smaller chunks of code.

New Discoveries



Small stories give you flexibility to reconfigure and adapt to new discoveries or changes. Perhaps the PO discovers an existing story is now irrelevant or while coding you discover a surprise. Small stories make it easier to adapt.

Feedback



Small stories provide more feedback opportunities at all levels of the system and more opportunities for personal satisfaction. Think of the small dopamine rush that happens every time you complete something.

Capacity



Your team has a capacity like a pipe and just like a pipe the large the object you try to push through it the more likely it is that blockages and bottlenecks will occur. Perhaps one person who is tied up in the large story may also be the only person who can complete a key piece of another story.

Speed



All these add up to speed. If you're able to keep your stories under the right threshold then you will go faster.

Perfect Size?



Most stories should be small enough that the team can complete several during an iteration. If there are still handoffs to QA that they get the first story early in the iteration.

When/Who

As part of Product Backlog grooming, I recommend splitting Epics into appropriate size stories about 4 iterations ahead of the team. This is just part of the normal work of backlog grooming carried out by the PO with assistance from the team. Backlog grooming might consume 5-10% of the time of the team.

This is just part of the work of the entire team, it should be done by whoever is able to help. I expect the PO to be involved and have noticed that it goes faster if at least three people are involved.

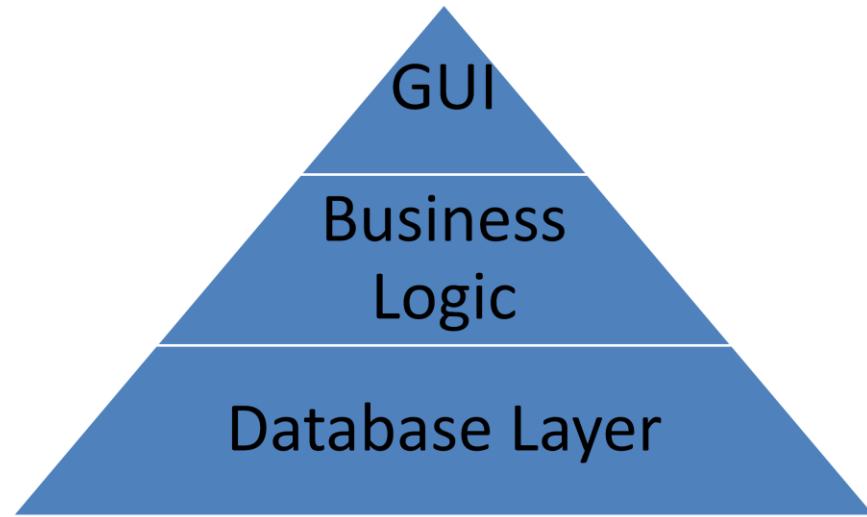
Core Example

As a first time Amazon user I want to buy a book so that I can enjoy it

- Paid for how?
- Amex? MasterCard? Visa?
- Shipped?
- Shipped Where?
- Where does the address come from?

This is an excellent Epic but not sized well for user story. What might this story entail?

Bad Splits



- No value for the customer
- No opportunity for the customer to steer and provide input
- Encourages Speculative coding/architecture

Core Example – Badly Split

As a first time Amazon user I want to buy a book so that I can enjoy it

- GUI Elements for buying a book (includes MasterCard, Visa, Amex)
- Middle Tier to access MasterCard
- Middle Tier to access Visa

Better Ways to Split

- CRUD
- Acceptance Criteria
- Workflow steps
- Screens
- Fewer Elements on Screen
- Data/Details
- Validation
- Error Flows
- Usability
- Scale
- API only vs. GUI
- CMD line vs GUI
- Constants
- Stub/Fake

Workflow split

As a first time Amazon user I want to buy a book so that I can enjoy it

- ...I want to select my book for purchase
 - ...I want to see my total including tax for this purchase
 - I want to see sales tax calculated if I live in Ontario
 - I want to see sales tax calculated if I live in Quebec
 -
 - ...I want to enter my home address
 - ...I want it shipped by parcel post
 - ...I want to pay for my book using MasterCard

Split and possible split again if required. When first implementing: “I want to see my total including tax for this purchase” the team might just use a constant instead of a calculation.

CRUD split

As a first time Amazon user I want to remember my address so I don't have to retype it next time I come back

- ...I want my address saved
- ...I want to see my address when I next return
- ...I want to edit my address
- ...I want to delete out of date addresses

For some time after I started using Amazon I seem to recall that you couldn't delete old addresses. Obviously the PO pushed that slice of the original story down the priority list on the product backlog.

Error Handling split

As a first time Amazon user I want to pay for my purchase using MasterCard...

- ...I purchase using a valid credit card...
- ...I purchase using an out of date credit card...
- ...I purchase using a stolen credit card...

It just got Bigger

- Original Story – 20 Story Points
- New Stories – 3, 5, 8, 5, 5 = 26 Story Points

Stories -> Tasks

- Sprint Planning
- Components
- Detailed Design
- NOT by Role

Sources

Mark Levison: [Story Slicing, How Small is Enough?](#)

Bill Wake: [Splitting Stories](#)

Rachel Davies: [Ideas for Slicing Stories](#)

Lasse Koskela: [Ways to Split Stories](#)

Reinforcement

- **3 Things Learned**
- **2 Action Items**

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