



# 21 Story Splitting Patterns

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# Why Split User Stories?

**SUBMIT A  
SESSION  
PROPOSAL**

Easier to  
understand

Some parts  
aren't needed

**ADD  
SESSION  
PROPOSAL**

**EDIT  
SESSION  
PROPOSAL**

**VIEW  
SESSION  
PROPOSAL**

**DELETE  
SESSION  
PROPOSAL**

Smaller stories provide  
faster feedback

Small stories  
increase progress

# Split Conditions

## What This Is

If a story has multiple items listed in “what” make each a separate story

## When to Use it

Words such as “and” or “or” appear

## Helpful questions

Are all of these conditions necessary (right now)?

**AS A CUSTOMER, I  
WANT TO CREATE AN  
ORDER AND PAY FOR  
THE ORDER USING A  
CREDIT CARD SO THAT  
I CAN GET SOMETHING  
TO EAT**

**AS A  
CUSTOMER, I  
WANT TO  
CREATE AN  
ORDER**

**AS A CUSTOMER  
I WANT TO PAY  
FOR MY ORDER  
USING A CREDIT  
CARD**

# Workflow

## What This Is

Identify the specific steps in a workflow.  
Implement the workflow in stages,  
creating multiple stories for the  
incremental implementation

## When to Use it

The initial story describes a workflow of  
the process.

## Helpful questions

What steps does a user perform?  
Are all steps necessary (right now)?  
Can steps be simplified (for now)?

AS A CUSTOMER, I  
WANT TO CREATE AN  
ORDER SO THAT I CAN  
GET SOMETHING TO  
EAT

AS A CUSTOMER  
I CAN VIEW THE  
ITEMS ON THE  
MENU

AS A CUSTOMER  
I CAN SELECT  
THE ITEMS I  
WANT IN MY  
ORDER

AS A CUSTOMER  
I CAN REVIEW  
MY ORDER

AS A CUSTOMER  
I CAN SUBMIT  
MY ORDER

# Use Case Scenarios

## What This Is

Similar to the Workflow pattern, one story represents the happy path, different stories for alternate paths.

## When to Use it

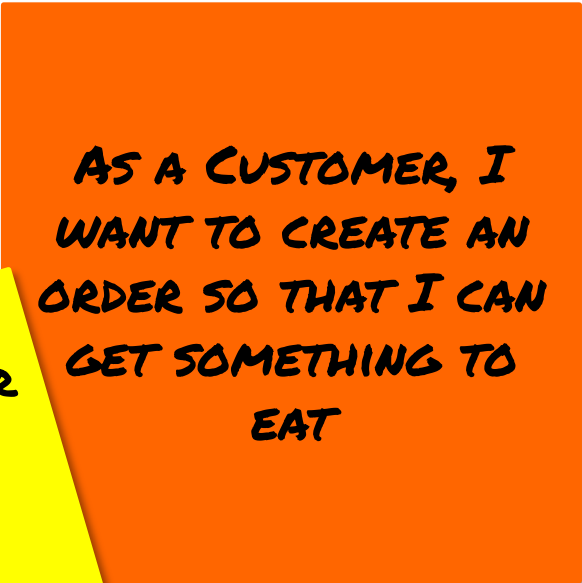
The initial story refers to an interaction described by a use case

## Helpful questions

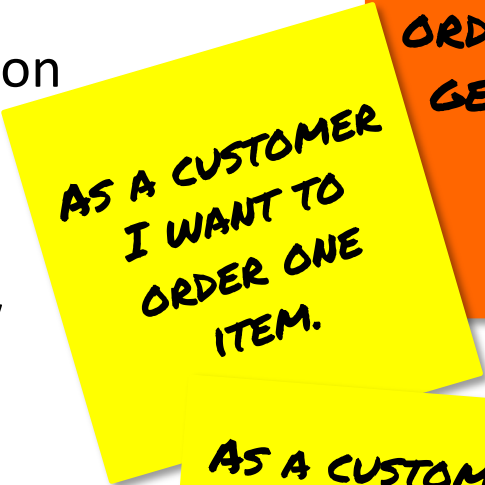
What does the happy/alternate flow look like?

Are all the alternate flows necessary (right now)?

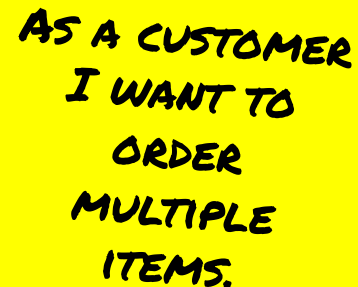
Can the alternate flows be simplified (right now)?



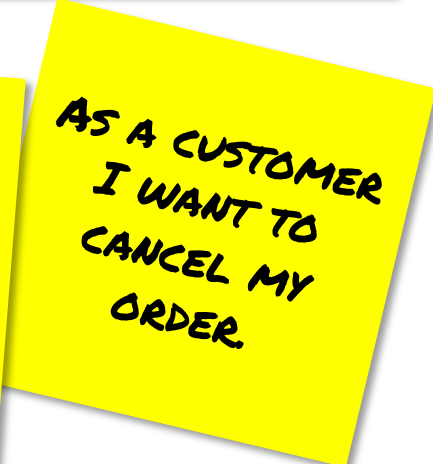
**AS A CUSTOMER, I  
WANT TO CREATE AN  
ORDER SO THAT I CAN  
GET SOMETHING TO  
EAT**



**AS A CUSTOMER  
I WANT TO  
ORDER ONE  
ITEM.**



**AS A CUSTOMER  
I WANT TO  
ORDER  
MULTIPLE  
ITEMS.**



**AS A CUSTOMER  
I WANT TO  
CANCEL MY  
ORDER.**

# Operations

## What This Is

Splitting a story based on the different operations done on an entity (Create, Read, Update, Delete).

## When to Use it

The story is about managing or configuring something

## Helpful questions

What operations does the story entail?

Are all the operations necessary (right now)?

AS A RESTAURANT  
OWNER I WANT TO  
MANAGE MY  
RESTAURANT PROFILE  
SO THAT PEOPLE CAN  
ORDER FROM MY  
RESTAURANT

AS A  
RESTAURANT  
OWNER I CAN  
CREATE A  
RESTAURANT  
PROFILE

AS A  
RESTAURANT  
OWNER I CAN  
UPDATE A  
RESTAURANT  
PROFILE

AS A  
RESTAURANT  
OWNER I CAN  
VIEW A  
RESTAURANT  
PROFILE

AS A  
RESTAURANT  
OWNER I CAN  
DELETE A  
RESTAURANT  
PROFILE

# Zero > One > Many

## What This Is

Splitting a story that deals with multiple instances of an entity into stories that deal with one instance, and then multiple instances.

## When to Use it

You are working with an entity where multiple instances are allowed.

## Helpful questions

Do we need to be able to handle multiple instances, or is one instance sufficient?

AS A RESTAURANT  
OWNER, I WANT TO  
VIEW A CUSTOMER'S  
ORDER.

AS A  
RESTAURANT  
OWNER, I WANT  
TO VIEW AN  
ORDER WITH NO  
MENU ITEMS.

AS A  
RESTAURANT  
OWNER I WANT  
TO VIEW AN  
ORDER WITH  
MULTIPLE  
ITEMS

AS A  
RESTAURANT  
OWNER I WANT  
TO VIEW AN  
ORDER WITH 1  
MENU ITEM.

# Core & Enhance

## What This Is

Splitting a story to deal with the simple core conditions and then enhancing the functionality with additional user stories.

## When to Use it

When the story has a simple core that provides most of the learning.

## Helpful questions

What's the simplest version of this?

What data types are supported?

What parameters are relevant?

**AS A CUSTOMER I  
WANT TO SEE MY PAST  
ORDERS SO THAT I CAN  
SEE WHAT I HAVE  
EATEN BEFORE.**

**AS A CUSTOMER  
I CAN SEE ALL  
OF MY ORDERS.**

**AS A CUSTOMER  
I CAN SEE  
ORDERS FOR A  
GIVEN  
LOCATION.**

**AS A CUSTOMER  
I CAN SEE ALL  
ORDERS IN THE  
PAST 3 MONTHS.**

**AS A CUSTOMER  
I CAN SEE  
ORDERS IN  
REVERSE DATE  
ORDER.**



# Major Effort

## What This Is

Splitting a story in a way that requires substantial effort for the first story and less effort for all subsequent stories.

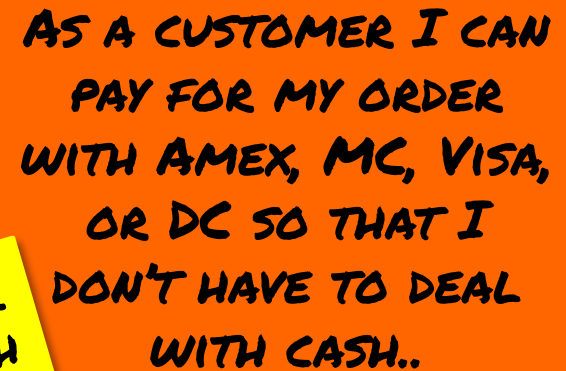
## When to Use it

When you apply the most obvious split, any story you do first is the most difficult.

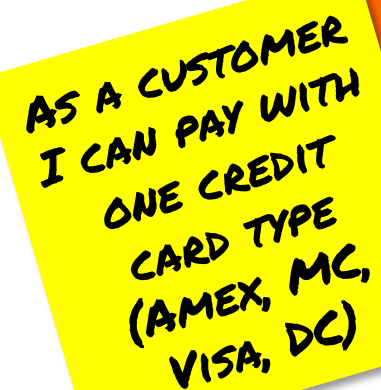
## Helpful questions

Can we create the necessary infrastructure and deliver value at the same time?

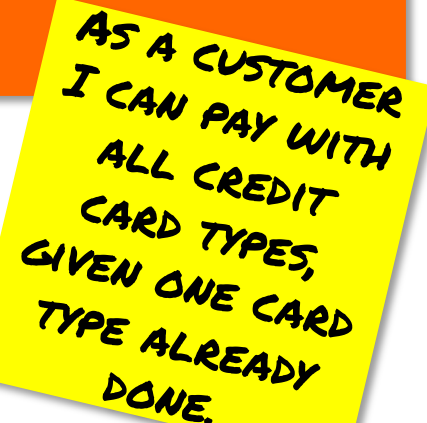
Does it make a difference which option we do first?



AS A CUSTOMER I CAN  
PAY FOR MY ORDER  
WITH AMEX, MC, VISA,  
OR DC SO THAT I  
DON'T HAVE TO DEAL  
WITH CASH..



AS A CUSTOMER  
I CAN PAY WITH  
ONE CREDIT  
CARD TYPE  
(AMEX, MC,  
VISA, DC)



AS A CUSTOMER  
I CAN PAY WITH  
ALL CREDIT  
CARD TYPES,  
GIVEN ONE CARD  
TYPE ALREADY  
DONE.

# Acceptance Criteria

## What This Is

Split a user story into multiple stories to handle different scenarios in the Acceptance Criteria.

## When to Use it

When the team identifies multiple scenarios for a story, or accurate, but not entirely relevant acceptance criteria identified.

## Helpful questions

What tests are used to verify this story?

What acceptance criteria apply?

What scenarios are relevant?

Are all test scenarios necessary (right now?)

**AS A CUSTOMER I  
WANT TO CREATE AN  
ORDER SO THAT I CAN  
HAVE SOMETHING TO  
EAT.**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER WITH AN  
APPROVED  
CREDIT CARD.**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER WITH A  
DECLINED  
CREDIT CARD.**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER WITH AN  
IN STOCK ITEM.**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER WITH AN  
ITEM NOT IN  
STOCK**

# Variations in Data

## What This Is

The story does the same thing to different types of data. Create a story for each option.

## When to Use it

When a solution has to support multiple options.

## Helpful questions

Are these options necessary right now?

What is the most common option we need to care for right away?

AS A CUSTOMER I  
WANT TO VIEW THE  
MENU IN MY NATIVE  
LANGUAGE SO I CAN  
DECIDE WHAT I WANT  
TO EAT.

AS A CUSTOMER  
I WANT TO  
VIEW THE MENU  
IN ENGLISH.

AS A CUSTOMER  
I WANT TO  
VIEW THE MENU  
IN FRENCH.

AS A CUSTOMER  
I WANT TO  
VIEW THE MENU  
IN SPANISH.

AS A CUSTOMER  
I WANT TO  
VIEW THE MENU  
IN SWAHILI

# Data Boundaries

## What This Is

Splitting a story dealing with several attributes of the same entity.

Support a few key elements first and introduce remaining data elements later via additional stories.

## When to Use it

When a story is dealing with several different pieces of data.

## Helpful questions

What are the essential data elements we need to have?

What data elements are not necessary right now?

**AS A CUSTOMER I  
WANT TO VIEW MENU  
ITEM INFORMATION SO  
I CAN DECIDE WHAT I  
WANT TO EAT.**

**AS A CUSTOMER  
I WANT TO  
VIEW DISH  
NAME +  
DESCRIPTION**

**AS A CUSTOMER  
I WANT TO  
VIEW DISH  
INGREDIENTS**

**AS A CUSTOMER  
I WANT TO  
VIEW  
NUTRITIONAL  
INFORMATION**

**AS A CUSTOMER  
I WANT TO  
VIEW PICTURES  
OF DISH.**

# Interface Variations

## What This Is

Splitting a story dealing with a complex interface with addition stories to incrementally add in complexity.

## When to Use it

When the user story deals with a complex user interface where a simpler one will work in the meantime

## Helpful questions

What is the simplest user interface we can use?

**AS A CUSTOMER I CAN VIEW THE MENU SO I CAN SELECT WHAT I WANT TO EAT.**

**AS A CUSTOMER I CAN VIEW THE MENU AS A PDF**

**AS A CUSTOMER I CAN VIEW THE MENU AS A SEARCHABLE WEB PAGE.**

**AS A CUSTOMER I CAN VIEW THE MENU NATIVE IN A BROWSER**

# Platform Options

## What This Is

Split a story adding a new user interface by the various platforms that are applicable.

## When to Use it

When adding a new user interface that may be accessed by multiple different platforms.

## Helpful questions

Which platforms are supported?

Are all platforms required (right now)?

Are some platforms more difficult to support than others?

**AS A CUSTOMER I  
WANT TO CREATE AN  
ORDER SO THAT I CAN  
GET SOMETHING TO  
EAT.**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER ON MY  
ANDROID DEVICE**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER ON MY  
IPAD**

**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER ON MY  
IPHONE**

# Business Rules

## What This Is

Split a user story so that complex business rules are handled by separate business rules.

A special case of this is deferring input validation to a later story.

## When to Use it

When a story has a variety of business rules, often identified by a large number of examples.

## Helpful questions

What rules apply to this story?

Are all of those rules necessary (right now)?

Can simpler rules suffice (for now)?

**AS A CUSTOMER I CAN  
USE A CREDIT CARD TO  
PAY FOR MY ORDER.**

**AS A CUSTOMER  
I WANT TO  
KNOW WHEN I  
DIDN'T PROVIDE  
A PROPERLY  
FORMATTED CC  
NUMBER**

**AS A CUSTOMER  
I WANT TO  
KNOW WHEN I  
DIDN'T PROVIDE  
A PROPER  
EXPIRATION  
DATE**

**AS A CUSTOMER  
I WANT TO  
KNOW WHEN I  
DIDN'T PROVIDE  
A CARD  
HOLDER'S NAME.**

# Role

## What This Is

Split a story so that the functionality is implemented at different times for different roles.

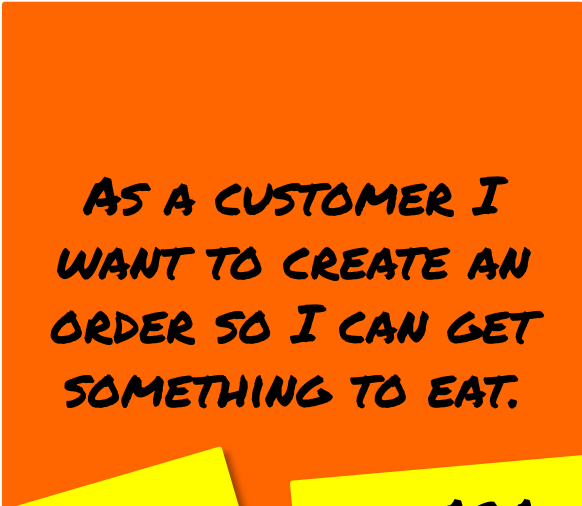
## When to Use it

When a story impacts multiple roles and the impact is different for each role.

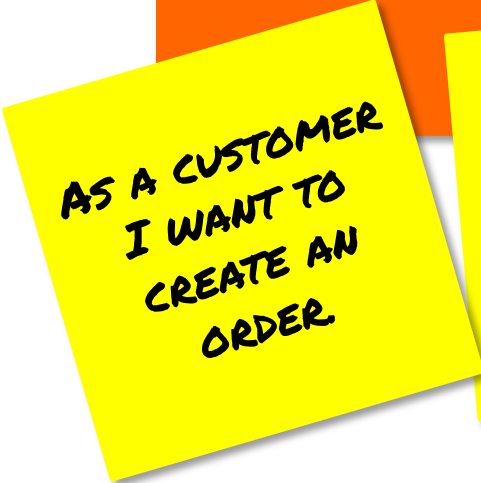
## Helpful questions

What roles are involved in this story?

Are any roles necessary now?



**AS A CUSTOMER I  
WANT TO CREATE AN  
ORDER SO I CAN GET  
SOMETHING TO EAT.**



**AS A CUSTOMER  
I WANT TO  
CREATE AN  
ORDER.**



**AS A  
RESTAURANT  
OWNER, I WANT  
TO CREATE AN  
ORDER FOR A  
CUSTOMER**



# Defer System Qualities

## What This Is

Split the story to deliver the necessary functionality first, then add additional stories to improve performance, scalability, usability or precision

## When to Use it

When the base functionality does not exist at all, initial implementation is not that difficult, the team can learn a lot from it, and the hard work is in making it better.

## Helpful questions

Is it necessary for this to have optimal performance (right now)?

**AS A CUSTOMER I  
WANT TO KNOW THAT  
THE RESTAURANT  
RECEIVED MY ORDER SO  
THAT I'M SURE I'LL  
GET SOME FOOD.**

**AS A CUSTOMER  
I WANT TO  
KNOW THAT THE  
RESTAURANT  
RECEIVED MY  
ORDER.**

**AS A CUSTOMER  
I WANT TO  
KNOW THAT THE  
RESTAURANT  
RECEIVED MY  
ORDER WITHIN 5  
SECONDS.**

# Spikes

## What This Is

Split the story to allow for some research and investigation on functionality before implementing it.

## When to Use it

When the team finds they are uncertain about the implementation of a story and they need to do some research.

## Helpful questions

What are the 1 – 3 questions you have about the story?

**AS A CUSTOMER I  
WANT TO SEE THE  
MENU IN THE  
LANGUAGE OF MY  
CHOICE SO THAT I CAN  
PICK SOMETHING I  
WANT.**

**SPIKE:  
INVESTIGATE  
TRANSLATION  
FUNCTIONALITY.**

# Low Fidelity/High Fidelity

## What This Is

Split the story into a gradual increase of quality.

## When to Use it

When getting to the optimal level of quality or usability is too expensive to deliver a solution immediately.

## Helpful questions

What is good enough for this functionality?

AS A CUSTOMER I  
WOULD LIKE A  
RECOMMENDATION OF  
WHAT FOOD TO ORDER  
SO THAT I CAN KNOW  
I'M GETTING A GOOD  
DISH.

AS A CUSTOMER  
I WANT TO SEE  
A NUMERIC  
RANK OF TOP  
SELLING MENU  
ITEMS.

AS A CUSTOMER  
I WANT TO SEE  
THE AGGREGATE  
RANKINGS OF  
OTHER  
CUSTOMERS

# Transient then Persistent

## What This Is

Split stories based on actions to pass data along and those necessary to save data.

## When to Use it

When the story deals with functionality that includes storing data, but does not require storing data.

## Helpful questions

Do we have to store this data (right now)?

AS A CUSTOMER I  
WANT TO USE A CREDIT  
CARD TO PAY FOR MY  
ORDER SO THAT I  
DON'T HAVE TO CARRY  
CASH.

COLLECT CREDIT  
CARD INFO AND  
USE IT TO GAIN  
AUTHORIZATION,  
BUT NOT STORE  
IT.

AS A CUSTOMER,  
I WANT TO SAVE  
MY CREDIT CARD  
INFORMATION  
TO MY PROFILE.

# Dummy then Dynamic Data

## What This Is

Split stories to first use static data and then add stories to make the data dynamic.

## When to Use it

When the story covers parameters where the values differ depending on conditions

## Helpful questions

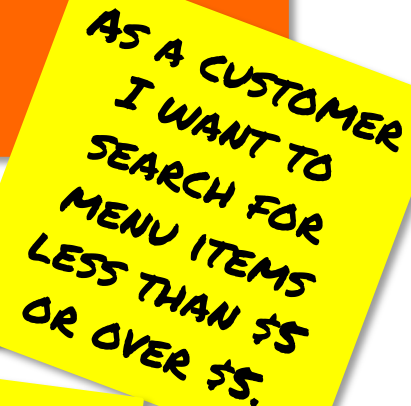
Does the data need to be dynamic (right now)?



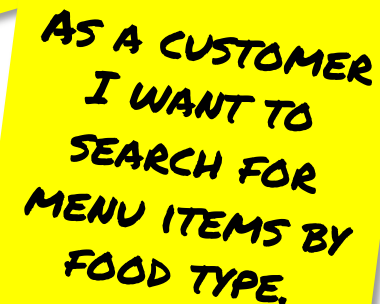
AS A CUSTOMER I  
WANT TO SEARCH FOR  
MENU ITEMS.



AS A CUSTOMER  
I WANT TO  
SEARCH FOR  
MENU ITEMS.



AS A CUSTOMER  
I WANT TO  
SEARCH FOR  
MENU ITEMS  
LESS THAN \$5  
OR OVER \$5.



AS A CUSTOMER  
I WANT TO  
SEARCH FOR  
MENU ITEMS BY  
FOOD TYPE.

# Manual then Automated

## What This Is

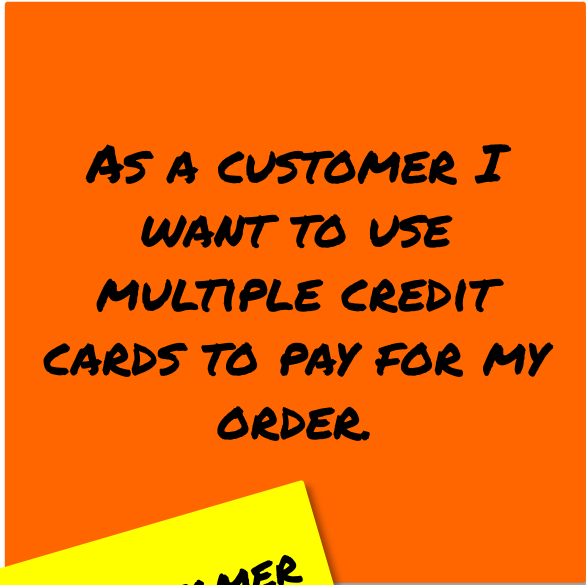
Split stories that utilize an existing manual process. Implement the functionality that does not exist.

## When to Use it

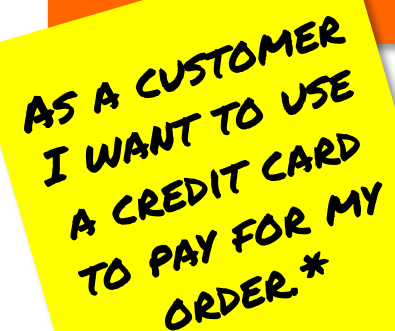
When functionality you are developing interacts with an existing manual process, develop the functionality but in the short term, do not automate the manual process.

## Helpful questions

Is it necessary to automate the manual process right now?

An orange rectangular sticky note with black text.

**AS A CUSTOMER I  
WANT TO USE  
MULTIPLE CREDIT  
CARDS TO PAY FOR MY  
ORDER.**

A yellow rectangular sticky note with black text, tilted at an angle.

**AS A CUSTOMER  
I WANT TO USE  
A CREDIT CARD  
TO PAY FOR MY  
ORDER.\***

\*Use manual process to deal with multiple cards

# Defer Error Handling or Logging

## What This Is

Split story so that you focus on functionality first, then go back and provide functionality to log errors and handle them.

## When to Use it

When you need to gain feedback on functionality quickly to determine whether to keep it.

## Helpful questions

Is it necessary to deal with exceptions for this functionality (right now)?

**AS A RESTAURANT  
OWNER I WANT TO  
AUTHORIZE THE  
CUSTOMER'S CREDIT  
CARD PAYMENT..**

**AS A RESTAURANT  
OWNER I WANT  
TO KNOW WHEN  
THE  
AUTHORIZATION  
PROCESS  
ENCOUNTERED  
ERRORS**

**AS A RESTAURANT  
OWNER I WANT  
TO KNOW WHAT  
ERRORS THE  
AUTHORIZATION  
PROCESS  
ENCOUNTERED.**

# Which Pattern to Use

Since there are multiple patterns that can be used to split the same story, here are three rules of thumb to guide your selection:

1. Choose the split that lets you deprioritize or throw away a story.
2. Choose the split that eliminates or at least reduces dependencies
3. Choose the split that gets you more equally sized small stories.

<http://www.agileforall.com/2009/10/patterns-for-splitting-user-stories/>



# Additional References

- Splitting User Stories Presentation <http://www.slideshare.net/arsenalist/splitting-userstories>
- Splitting User Stories Cheat sheet <https://twitter.com/chrisverwijs/status/335109871802384385>
- Breaking Down Larger Stories <http://agileinaflash.blogspot.com/2009/02/breaking-down-larger-stories.html>
- Ways to Split User Stories: <http://lassekoskela.com/thoughts/7/ways-to-split-user-stories/>
- User Story Hamburger technique <http://gojko.net/2012/01/23/splitting-user-stories-the-hamburger-method/>
- Features to User Stories <http://idiacomputing.com/pub/UserStories.pdf>
- Patterns for Splitting User Stories <http://www.agileforall.com/2009/10/patterns-for-splitting-user-stories/>
- Twenty Ways to Split Stories <http://xp123.com/articles/twenty-ways-to-split-stories/>