

47006- ANÁLISE E MODELAÇÃO DE SISTEMAS

# Metodologias ágeis e *user stories*

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# Learning objectives for this lecture

Characterize the principles of backlog management in agile projects

Define and write stories for a given product.

Distinguish use story estimation and prioritization.

Write the acceptance criteria part of a user story.

Compare user stories and use cases with respect to commonalities and differences.

Describe the PivotalTracker story-based development workflow.

# Requirements elicitation by exploring user-centered scenarios

## A. Use cases

UML support. Main “origin”: I. Jacobson.

## B. User stories

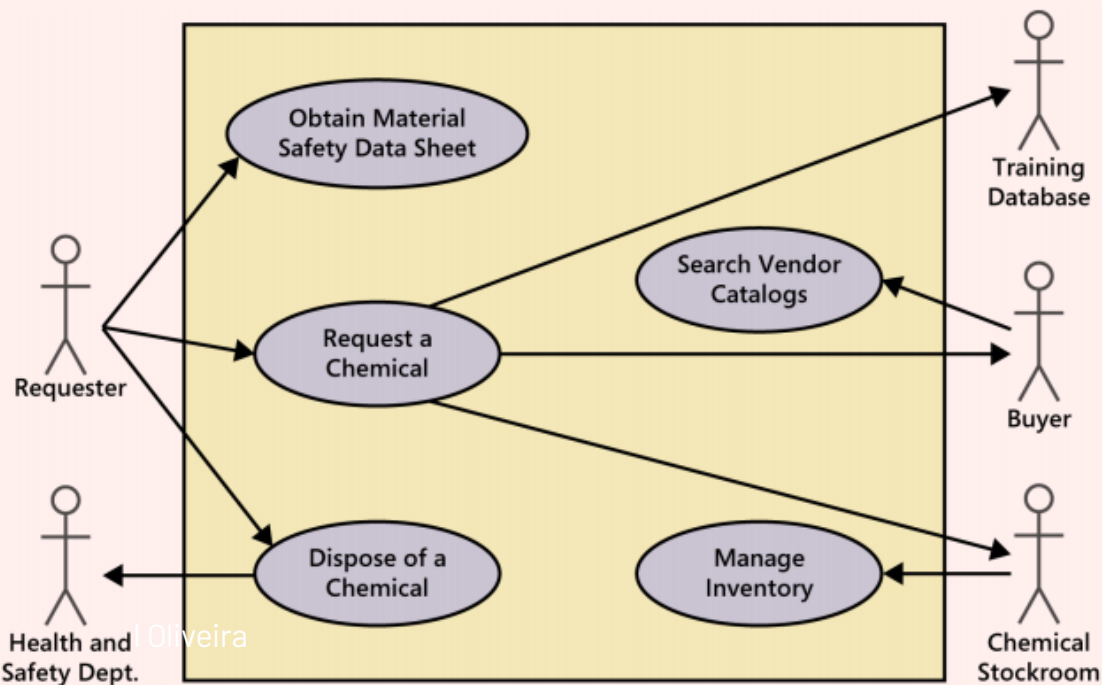
Agile-centric. Main “origin”: M. Cohn.

## C. User-centered design (UCD)

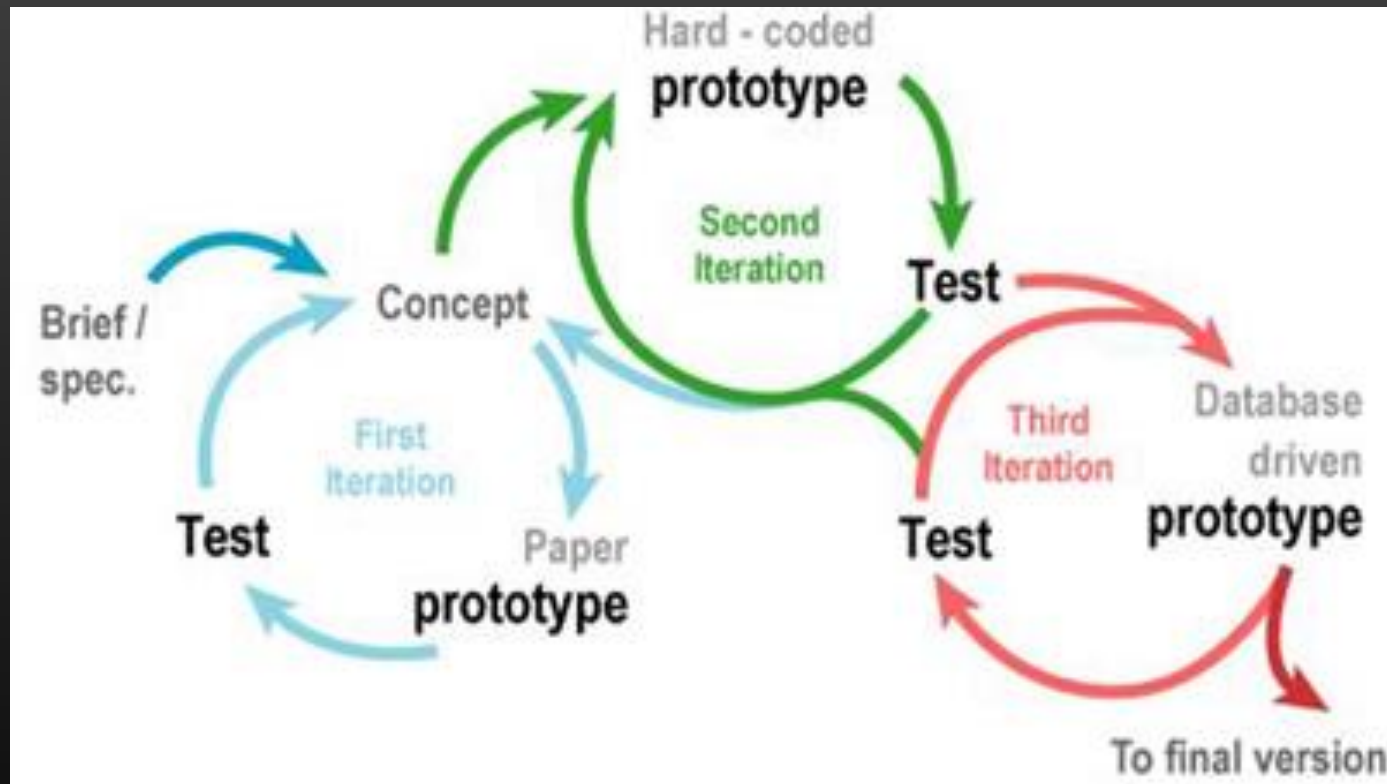
## D. Customer Journey Map (Experience maps)

# Use cases way

ID and Name:	UC-4 Request a Chemical		
Created By:	Lori	Date Created:	8/22/13
Primary Actor:	Requester	Secondary Actors:	Buyer, Chemical Stockroom, Training Database
Description:	The Requester specifies the desired chemical to request by entering its name or chemical ID number or by importing its structure from a chemical drawing tool. The system either offers the Requester a container of the chemical from the chemical stockroom or lets the Requester order one from a vendor.		
Trigger:	Requester indicates that he wants to request a chemical.		
Preconditions:	PRE-1. User's identity has been authenticated. PRE-2. User is authorized to request chemicals. PRE-3. Chemical inventory database is online.		
Postconditions:	POST-1. Request is stored in the CTS. POST-2. Request was sent to the Chemical Stockroom or to a Buyer.		
Normal Flow:	<b>4.0 Request a Chemical from the Chemical Stockroom</b> 1. Requester specifies the desired chemical. 2. System lists containers of the desired chemical that are in the chemical stockroom, if any. 3. System gives Requester the option to View Container History for any container. 4. Requester selects a specific container or asks to place a vendor order (see 4.1). 5. Requester enters other information to complete the request. 6. System stores the request and notifies the Chemical Stockroom.		
Alternative Flows:	<b>4.1 Request a Chemical from a Vendor</b> 1. Requester searches vendor catalogs for the chemical (see 4.1.E1). 2. System displays a list of vendors for the chemical with available container sizes, grades, and prices. 3. Requester selects a vendor, container size, grade, and number of containers. 4. Requester enters other information to complete the request. 5. System stores the request and notifies the Buyer.		
	<b>4.2 Request a Chemical from a Vendor that is Not Commercially Available</b> 1. System displays message: No vendors for that chemical. 2. Requester asks if he wants to request another chemical (3a) or to exit (4a). 3. If Requester asks to request another chemical, system returns to step 1. 4. If Requester asks to exit, system ends normal flow over. 5. Requester asks to exit.		
	Frequency: 5 times per week by each chemist, 200 times per week by chemical if		



# UCD: prototyping & acceptance



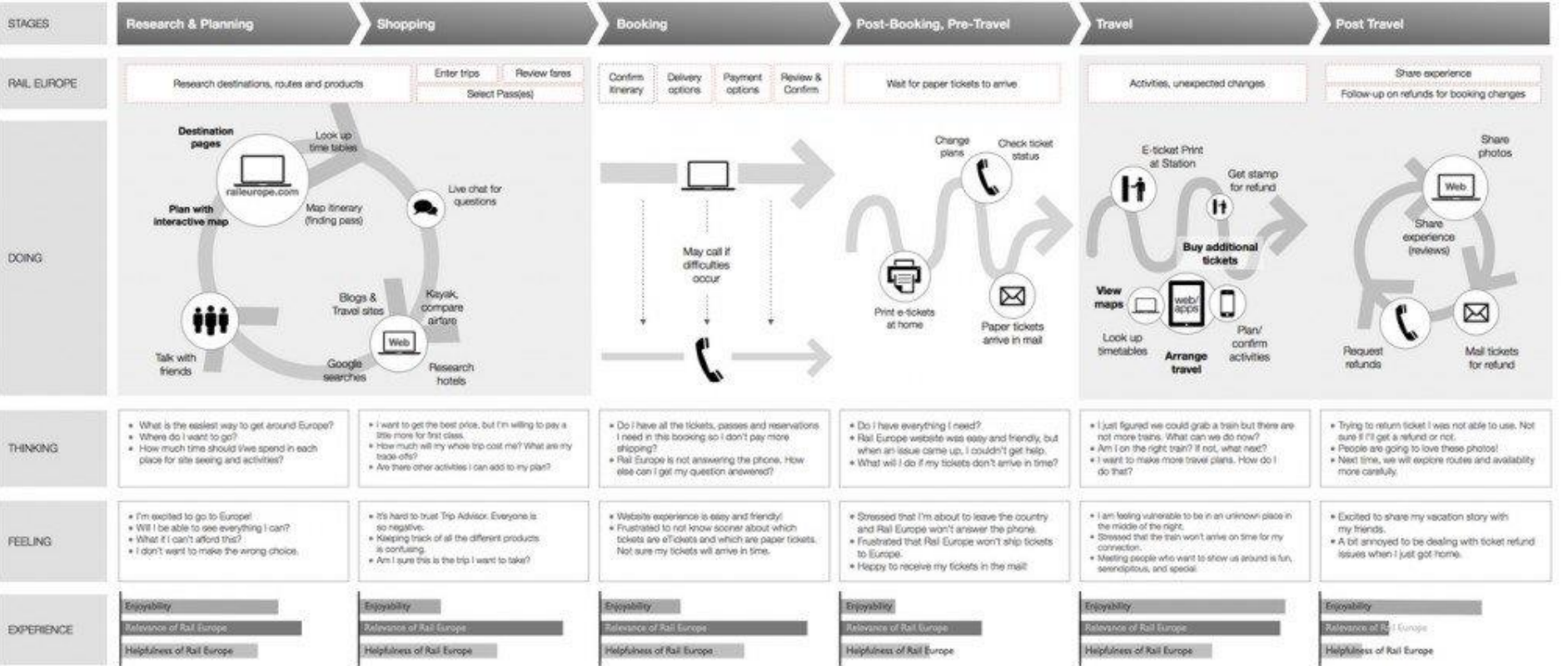
<https://www.museumsandtheweb.com/mw2007/papers/brown/brown.html>

# Rail Europe Experience Map

## Guiding Principles

- People choose rail travel because it is convenient, easy, and flexible.
- Rail booking is only one part of people's larger travel process.
- People build their travel plans over time.
- People value service that is respectful, effective and personable.

## Customer Journey



## Opportunities

GLOBAL	PLANNING, SHOPPING, BOOKING	POST-BOOK, TRAVEL, POST-TRAVEL
<div>Communicate a clear value proposition.</div> <div>STAGE: Initial visit</div>	<div>Enable people to plan over time.</div> <div>STAGE: Planning, Shopping</div>	<div>Improve the paper ticket experience.</div> <div>STAGE: Post-Booking, Travel, Post-Travel</div>
<div>Help people get the help they need.</div> <div>STAGE: Global</div>	<div>Visualize the trip for planning and booking.</div> <div>STAGE: Planning, Shopping</div>	<div>Accommodate planning and booking in Europe too.</div> <div>STAGE: Traveling</div>
<div>Support people in creating their own solutions.</div> <div>STAGE: Global</div>	<div>Arm customers with information for making decisions.</div> <div>STAGE: Shopping, Booking</div>	<div>Proactively help people deal with change.</div> <div>STAGE: Post-Booking, Traveling</div>
<div>Make your customers into better, more savvy travelers.</div> <div>STAGE: Global</div>	<div>Connect planning, shopping and booking on the web.</div> <div>STAGE: Planning, Shopping, Booking</div>	<div>Communicate status clearly at all times.</div> <div>STAGE: Post-Booking, Post Travel</div>
<div>Engage in social media with explicit purposes.</div> <div>STAGE: Global</div>	<div>Aggregate shipping with a reasonable timeline.</div> <div>STAGE: Booking</div>	

# User stories

CIS board

# Story Map by Easy Agile

+ Create Epic Quick filters Sprint swimlanes ... ? Backlog

Navigation CIS-1

Car Statistics CIS-4

Phone Integration CIS-3

Play Media CIS-2

Fatigue Management CIS-4

Sprint 1

The 'Young Professional' Driver / Install maps so that I can navigate to places easier CIS-8

The 'Young Professional' Driver / Touch Screen to navigate easily CIS-38

The 'Young Professional' Driver / Apple CarPlay Integration so that I can safely send and receive calls, texts and emails from my iOS device while driving CIS-41

The 'Young Adult' Passenger / Allow Wifi Hotspot to support up to 5 devices CIS-39

The 'Sunday' Driver / Enable 'Tourist Mode Assist' when travelling outside of standard travel radius CIS-11

The 'Young Professional' Driver / Integrate local traffic data to better estimate travel times CIS-10

The 'Sunday' Driver / Show miles/km to empty so that I don't run out of fuel CIS-23

Sprint 2

The 'Sunday' Driver / Showcase local landmarks if travelling outside of standard travel radius CIS-11

The 'Young Professional' Driver / Wear and Tear Report so that I can take preventative action to preserve the life of the car if needed CIS-26

The 'Family' Driver / Microphone so that I can make phone calls safely while I'm driving CIS-19

The 'Family' Driver / Graphical User Interface for easier use of media while driving CIS-18

The 'Young Professional' Driver / Android Auto Integration so that I can safely send and receive calls, texts and emails while driving CIS-41

The 'Family' Driver / Music Streaming service so that I can listen to music on trips CIS-17

The 'Sunday' Driver / Safe Time Driving Display CIS-12

Quick filters

Sprint 1

The 'Family' Driver / 'Hot Cues' to make ... CIS-28

Sprint 2

Unscheduled

The 'Young Professional' Driver / Custom ... CIS-9

The 'Family' Driver / A 'Favourites' Cont ... CIS-37

The 'Sunday' Driver / Engine Temperatu ... CIS-24

The 'Young Professional' Driver / Amaz ... CIS-40

The 'Sunday' Driver / Show designated ' ... CIS-31

The 'Family' Driver / Object Detection fo ... CIS-33

The 'Family' Driver / Safe Volume Adjus ... CIS-17

The 'Young Professional' Driver / Aux C ... CIS-16

The 'Young Professional' Driver / Do No ... CIS-21

The 'Family' Driver / Time/Distance to m ... CIS-25

The 'Young Adult' Passenger / Spotify In ... CIS-35



# Use cases e os métodos ágeis → Use Cases 2.0

A granularidade dos casos de uso pode ser excessiva

para a gestão do dia-a-dia da equipa de desenvolvimento

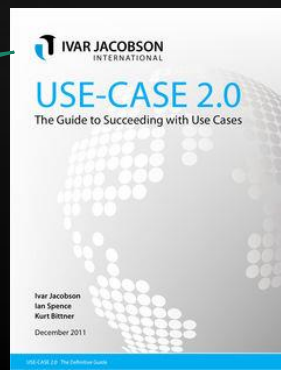
## Proposta Use Cases 2.0

– “Fatias” de funcionalidade

Ponto de partida: use cases

- ...com a flexibilidade das *user stories/use case slices*

PDF shared...



<https://youtu.be/p5gDbf0je8k>



# Unidade mais conveniente: “fatia” de funcionalidade



a use case and its properties captured on a sticky note

7.1 select and buy  
1 product

flows: BF  
test: 1 product,  
default payment,  
valid details

5

7.3 support systems  
unavailable

flows: BF, A9, A10,  
A1, A12  
test: select product,  
provide information,  
disconnect each  
system in between<sub>13</sub>

some slices from the  
use case captured on  
their own sticky notes

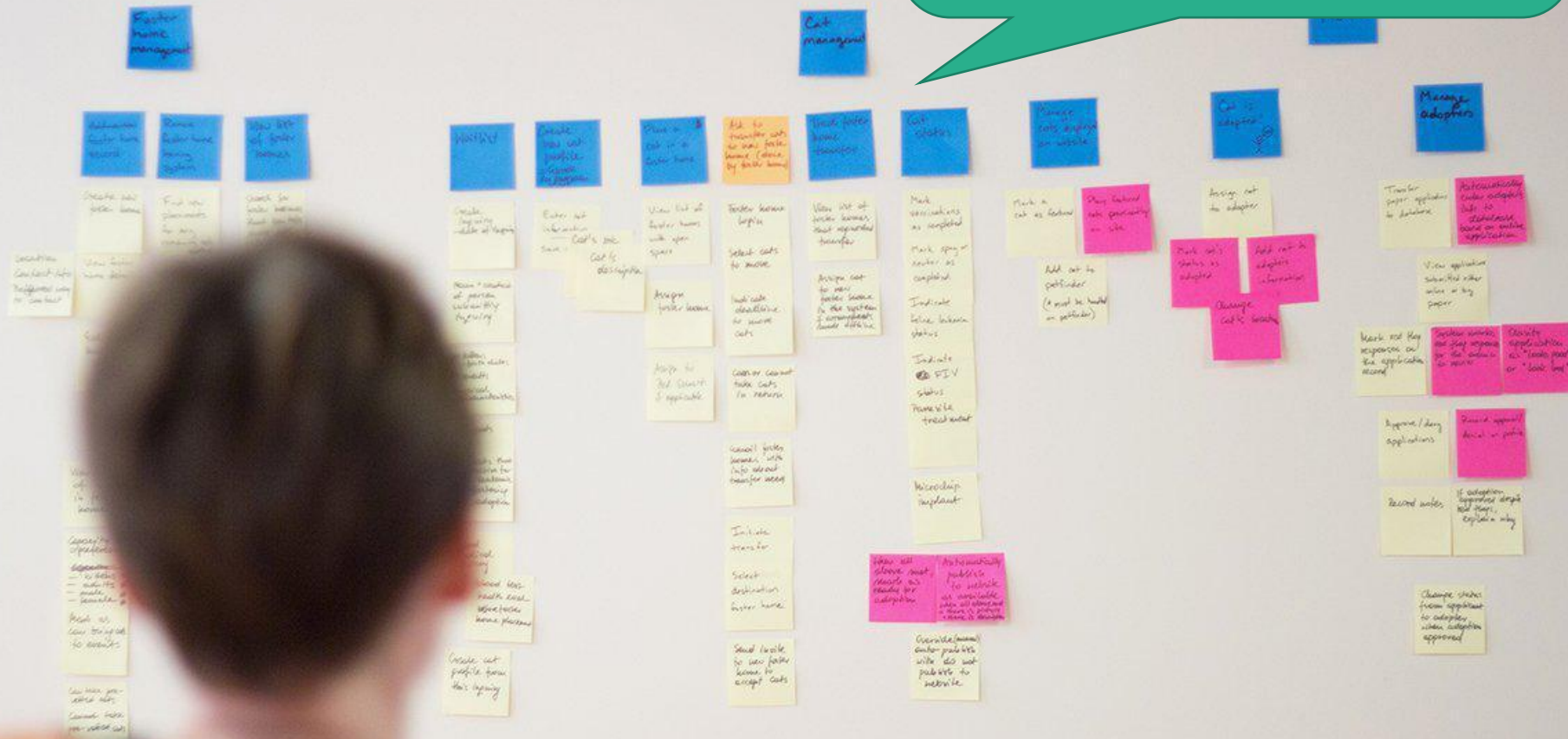
7.2 select and buy  
100 products

flows: BF  
test: 100 products,  
default payment,  
valid details

5

# A metáfora do "post-it"

- Granularidade adequada para distribuir o trabalho
- Rastreabilidade para os requisitos (cenários de uso)
- Alguns "post-it" por iteração

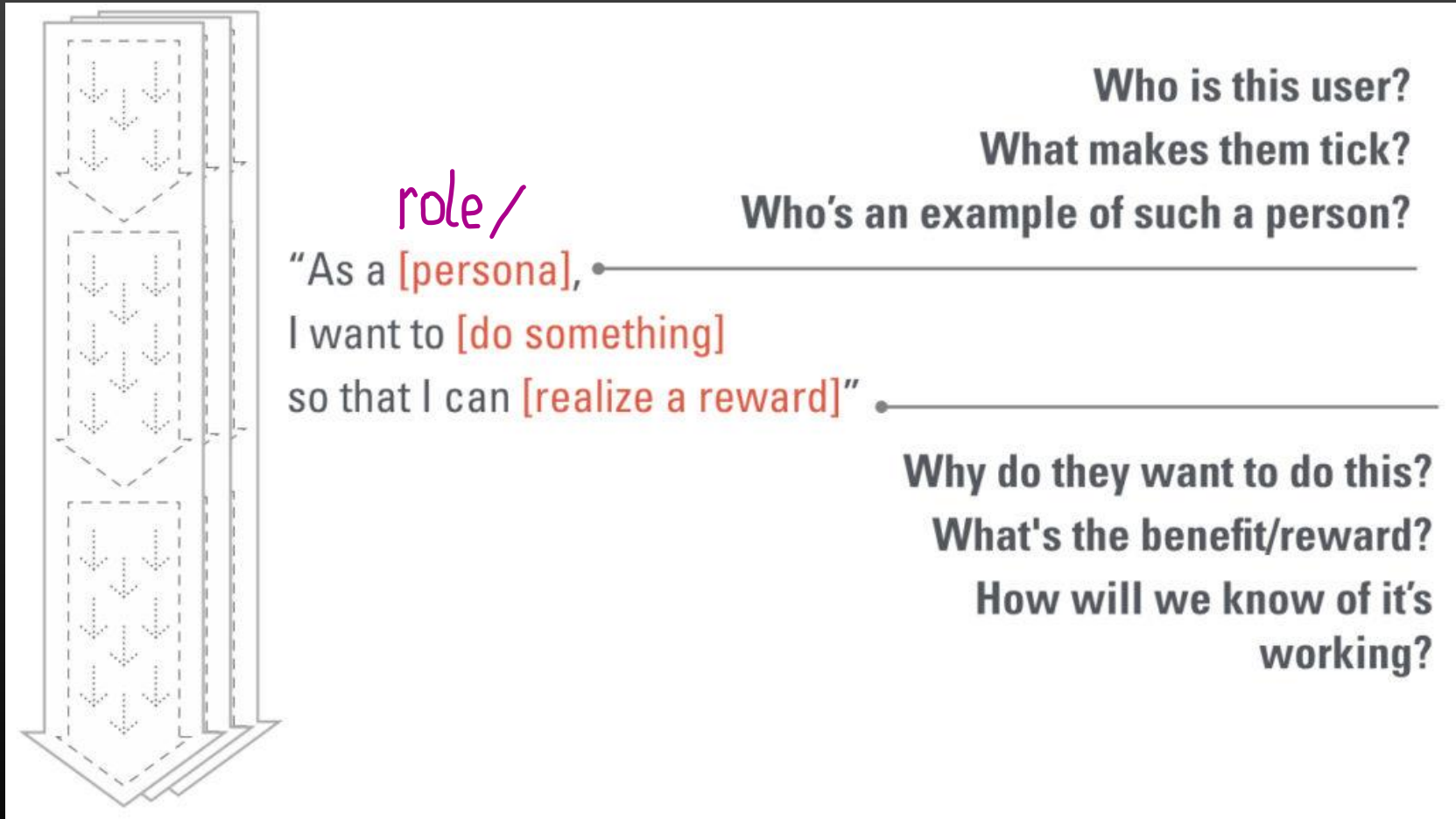


# A metáfora do post-it numa ferramenta de planeamento ágil (Jira com plug-in)

The image displays a Jira board interface with two sprints. The top sprint, '2020-08-16 SCRA Sprint 1', shows 21 'To Do' items and 3 'In Progress' items. The bottom sprint, '2020-09-15 Sprint 2', shows 25 'To Do' items and 1 'In Progress' item. A large blue banner at the bottom reads 'BIG PICTURE FROM USER'S PERSPECTIVES'.

<https://www.devsamurai.com/en/agile-user-story-mapping-for-jira/>

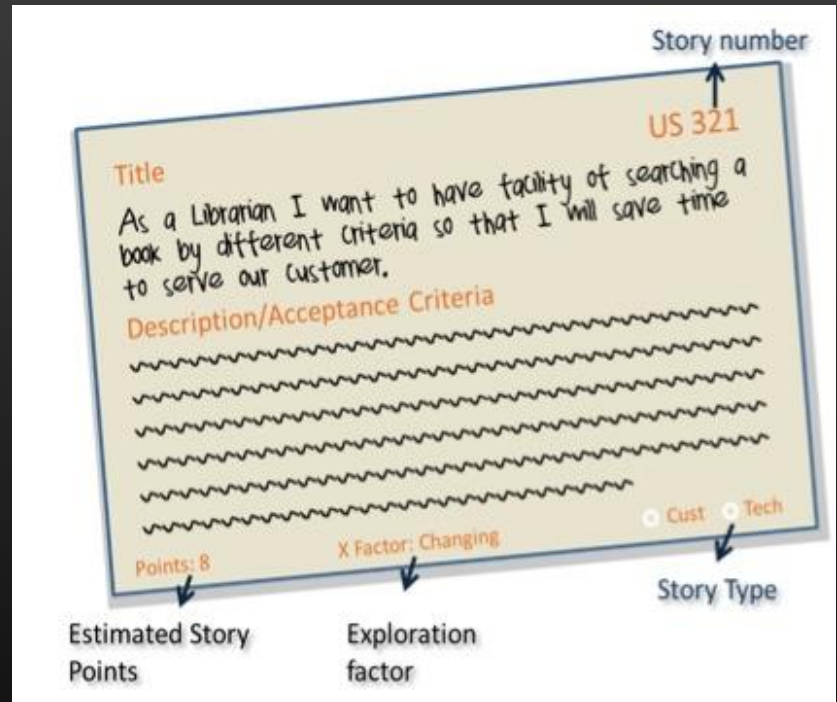
# The story should clarify how to check if it is working



# User stories in agile methods

The *backlog* is the prioritized list of user stories –requirements– for the product and their allocation to upcoming iterations (called sprints in the agile development method called Scrum.)

User story: a “short, simple description of a feature told from the perspective of the person who desires the new capability, usually a user or customer of the system” (Cohn 2010)



User story != use case

→ See [examples](#)

# Exemplo

## Histórias adequada:

- O gestor de RH publica nova oferta de emprego.
- Um Candidato pode limitar quem pode ver o seu currículo

## Histórias desadequadas:

- O software será implementado em Python.
- O programa irá ligar-se à base de dados através de uma *"connection pool"* (reutilização de ligações já abertas)

Anotação informal  
do que é  
descoberto nas  
"conversas"

*Users can view information about each job that is matched by a search.*

*Marco says show description, salary, and location.*

■ Story Card 1.2 A story card with a note.



# “Fatiar” os cenários de uso para tornar o trabalho mais concreto, gerível e segmentado

A equipa de projeto e o cliente/promotor começam a discutir requisitos sobre as motivações de uso:

"Um Candidato (a um emprego) pode publicar um currículo (no site)".

Objetivo de alto nível  $\leftrightarrow$  caso de utilização.

Essa “história” será expandida à medida que os detalhes forem descobertos através de conversas / colaboração. →

Um possível desenvolvimento em histórias (*user stories*):

- Um Candidato pode adicionar um novo currículo ao site.
- Um Candidato pode editar um currículo que já está no site.
- Um Candidato pode remover o currículo do local.
- Um Candidato pode mudar o estado do CV para inativo/ativo.
- Um Candidato pode marcar um currículo como escondido para certos empregadores.
- Um Candidato pode ver as vezes que o seu currículo foi consultado

→ ver: [exemplo relacionado](#)



## Goals

Buy a product

## Narrative Flow

## Steps

Register user account

EC-62

To Do

Search products

EC-63

To Do

View products details

EC-64

To Do

Shopping cart

EC-65

To Do

Checkout

EC-66

To Do

## Stories

54 To Do

3 In Progress

Check delivery status

EC-12

To Do

List products

EC-20

To Do

sort, filter products

EC-19

To Do

Continue shopping

EC-8

To Do

Select delivery time

EC-23

To Do

Activate account

EC-26

To Do

Search discount products

EC-41

To Do

View related products

EC-50

To Do

Change quantity

EC-46

To Do

Confirm order

EC-43

To Do

Edit profile

EC-37

To Do

Advanced search

EC-54

To Do

View product reviews

EC-51

To Do

Remove product

EC-47

To Do

Select shipping address

EC-44

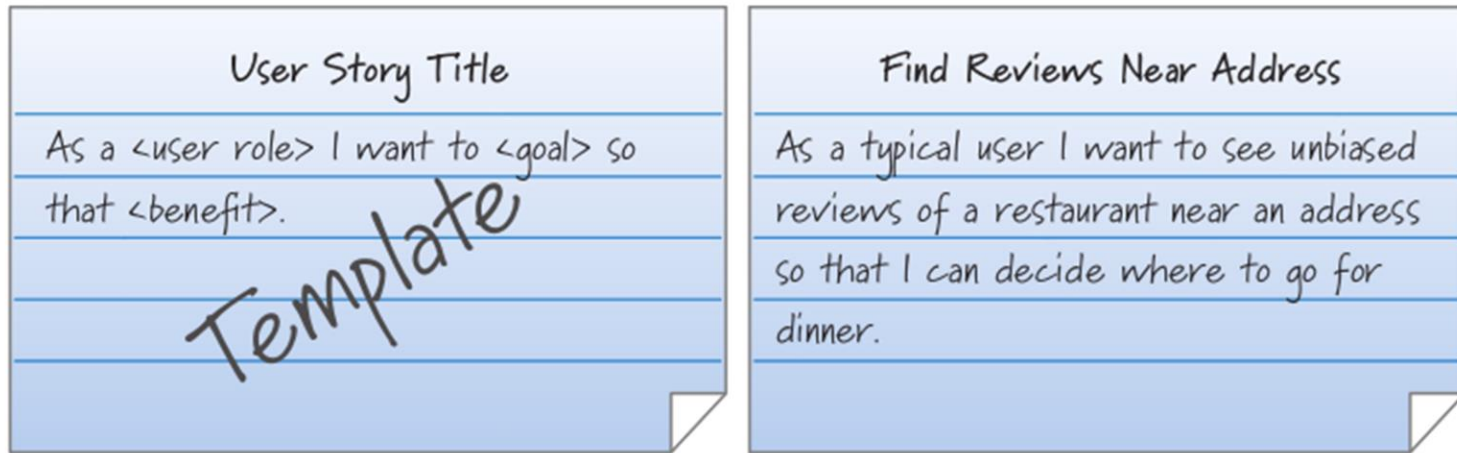
To Do

<https://www.devsamurai.com/en/agile-user-story-mapping-for-jira/>

# Boas ou más histórias?

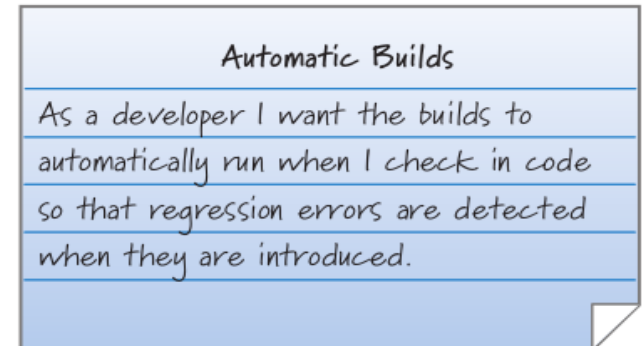
- a The user can run the system on Windows XP and Linux.
- b All graphing and charting will be done using a third-party library.
- c The user can undo up to fifty commands.
- d The software will be released by June 30.
- e The software will be written in Java.
- f The user can select her country from a drop-down list.
- g The system will use Log4J to log all error messages to a file.
- h The user will be prompted to save her work if she hasn't saved it for 15 minutes.
- i The user can select an “Export to XML” feature.
- j The user can export data to XML.

# Pode-se usar um *template* para apresentar a história



**FIGURE 5.2** A user story template and card

As histórias devem conter um benefício perceptível para o utilizador!



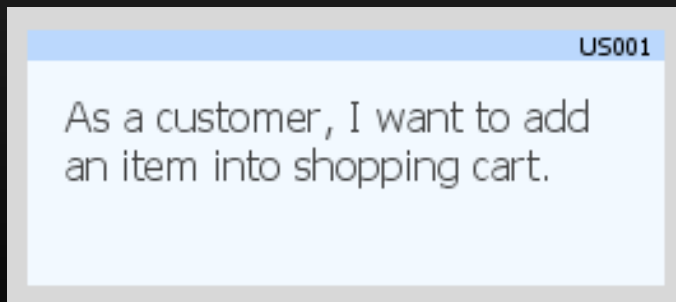
Undesirable technical story

# Estratégia para redigir a história

As histórias dos utilizadores são frequentemente escritas de acordo com a seguinte estrutura (mas há outros estilos):

Sendo <papel de utilizador>, quero <ação/funcionalidade pretendida> de modo a <satisfação obtida>

As a <type of user>, I want <some goal> so that <some reason>.



→ ver [exemplos](#)

E.g.:

Sendo um cliente, quero receber um SMS quando o artigo chegar de modo a que eu possa ir buscá-lo.

<role> representa a pessoa, o sistema, o subsistema ou qualquer outra entidade que interaja com o sistema a ser implementado para atingir um objetivo. É quem obtém valor da utilização do sistema.

<business objective> representa uma expectativa de um utilizador sobre algo que pode realizar interagindo com o sistema.

<benefício> representa o valor resultante por da interação com o sistema. Pode ser omitido, se for óbvio (decorrente do ponto anterior).

# Epic (épico): “grande” objetivo do utilizador

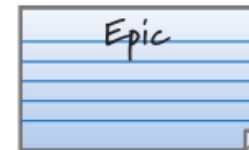
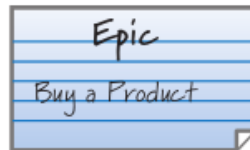
Quando uma história é muito “grande” (apresentada em alto nível), às vezes é referida como um épico.

Os Épicos podem ser divididos em várias histórias de tamanho menor.

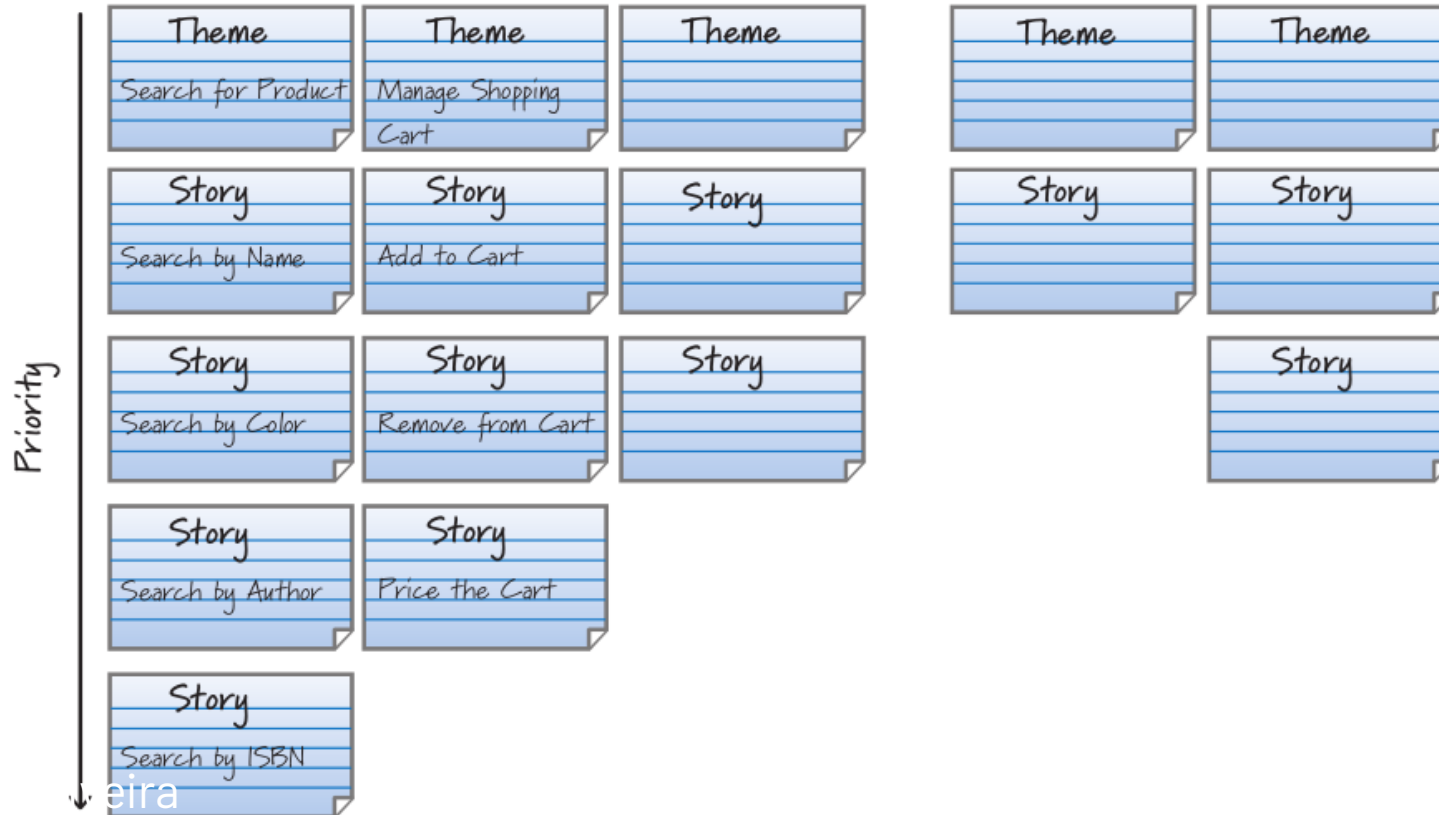
Por exemplo, o épico "Um utilizador pode usar o site para procurar um emprego" poderia ser dividido em várias histórias:

- Um utilizador pode procurar empregos por atributos como localização, intervalo salarial, designação da oferta, nome da empresa, e a data em que o trabalho foi postado.
- Um utilizador pode visualizar informações detalhadas sobre cada oportunidade que seja encontrada numa pesquisa.
- Um utilizador pode ver informações detalhadas sobre uma empresa que publicou um trabalho.

# À procura das histórias



Workflow or usage sequence (over time)



# EASY AGILE USER STORY MAPS

ARIJEA

Epic

select movie

buy movie

watch movie

social actions

the high level activities a user will accomplish while using the product

Story

under each activity the team adds user stories that support the activity

Sprint

Sprint 3

sequencing work allows the team to plan what they will deliver and when



An example epic, “March 2050 Space Tourism Launch” includes stories for routine work items as well as stories aimed to improve key aspects of the shuttle launch, from customers buying space travel tickets to the launch of the rocket itself. As such, multiple teams will contribute to this epic by working on a wide range of stories.

The software team supporting the purchasing of tickets for the March 2050 launch might structure their epic as so:

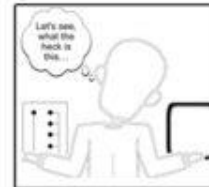
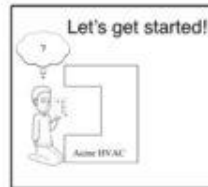
Epic: March 2050 Launch		
Story: Update date range to include March 2050 Launch dates.	Story: Reduce load time for requested flight listings to < 0.45 seconds	Story: Promote Saturn Summer Sale on confirm page for First Class bookings.

Concurrently, the propulsion teams might contribute to the same epic with these stories:

Epic: March 2050 Launch		
Story: Keep fuel tanks PSI > 250 PPM on launch	Story: Reduce overall fuel consumption by 1%.	Story: Hire new propulsion engineer to replace Gary. #garygate2050

# Organização das histórias em níveis de prioridade (linhas de corte para as iterações)

**STRIPE 0**  
**TOPLINE**  
**NARRATIVE**



...  
**TIME** →

**STRIPE 1**  
**HIGH PRIORITY**  
**STORIES**



**STRIPE 2, ETC.**  
**LOWER PRIORITY**  
**STORIES**

**PRIORITY** ↓



source: adapted from Jeff Patton's 'User Story Mapping'

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Forecasting based on velocity of 12

Forecast	+ -	Order	State	Parent	Story Points	Title	Iteration Path
Sprint 2		1	● New	🏆 Customer Web - Phase 1	3	📄 About screen	Design Agile\Sprint 2
		2	● New	🏆 Customer Web - Phase 1	3	> 📄 Change initial view	Design Agile\Sprint 2
		3	● New	🏆 Customer Web - Phase 1	5	> 📄 Hello World Web Site	Design Agile\Sprint 2
		4	● New	🏆 Customer Web - Phase 1	3	📄 Slow response on information form	Design Agile\Sprint 3
		5	● New	🏆 Customer Web - Phase 1	5	> 📄 Change background color	Design Agile\Sprint 3
Sprint 3		6	● New	🏆 Customer Phone - Phase 1	2	> 📄 Phone sign in	Design Agile\Sprint 3
		7	● New	🏆 Customer Phone - Phase 1	3	> 📄 Request support	Design Agile\Sprint 3
Sprint 4		8	● New	🏆 Mobile feedback	8	📄 Design feedback interface	Design Agile\Sprint 4
Sprint 5		9	● New	🏆 Mobile feedback	8	📄 Develop mobile interface	Design Agile\Sprint 5
		10	● New	🏆 Refresh web look, feel, performance factors	3	> 📄 Add an information form	Design Agile\Sprint 5
		11	● New	🏆 Refresh web look, feel, performance factors	5	📄 Check performance	Design Agile\Sprint 5
Sprint 6		12	● New	🏆 Refresh web look, feel, performance factors	3	📄 Interim save on long form	Design Agile\Sprint 6
		13	● New	🏆 Customer Service - Web	5	📄 Technician dashboard improvements	Design Agile\Sprint 6
		14	● New	🏆 Customer Service - Web	8	📄 Scheduler	Design Agile

## As histórias também fornecem um contexto para “anotar” as condições de aceitação/pontos de verificação

As equipas “ágeis” incluem na história num conjunto de condições que descrevem as “condições de satisfação” da história, isto é, o que tem de passar para a história poder ser aceite.

→ Ver mais [exemplos](#)

### Add Prospect

As a property manager I want to add a new prospect to the lead management system so I can track my interactions with the prospect.

### Conditions of Satisfaction

Capture name, email, phone #, contact date, contact format, lease type, and move-in date

Verify prospect is associated with an existing campaign

# As critérios de aceitação podem ser escritos seguindo um formato estruturado

*GIVEN [necessary context] WHEN [action] THEN [reaction].*

Title (one line describing the story)

Narrative:

As a [role]

I want [feature]

So that [benefit]

Acceptance Criteria: (presented as Scenarios)

Scenario 1: Title

Given [context]

And [some more context]...

When [event]

Then [outcome]

And [another outcome]...

Scenario 2: ...

Frank Can Add Another Person as a Friend

ID

#115218319

Close

STORY TYPE

★ Feature

POINTS

⌚ Unestimated

STATE

Start

Unscheduled

REQUESTER

RJ

Ryan Jones

OWNERS

<none>

+

FOLLOW THIS STORY

(1 follower)

✓

Updated: less than a minute ago

DESCRIPTION

(edit)

As Frank I want to add a friend I searched for to my friend network so that I can see their posts, they can see my posts and I can direct message them

GIVEN I have searched for a friend's name  
WHEN I select "Add Friend" next to my friend's name  
THEN my friend's name should appear in my friend list on my homepage

Dev Notes: The added friend needs to be added to the Frank's friends in database

Design Notes: Attached are mocks for the button and placement

LABELS

add friend

×

individual user

×



## Stories define your project

Every project starts with a story, no matter what you're building. Tracker helps your team better develop and keep track of them while they progress from start to delivered.

### Start with a good story

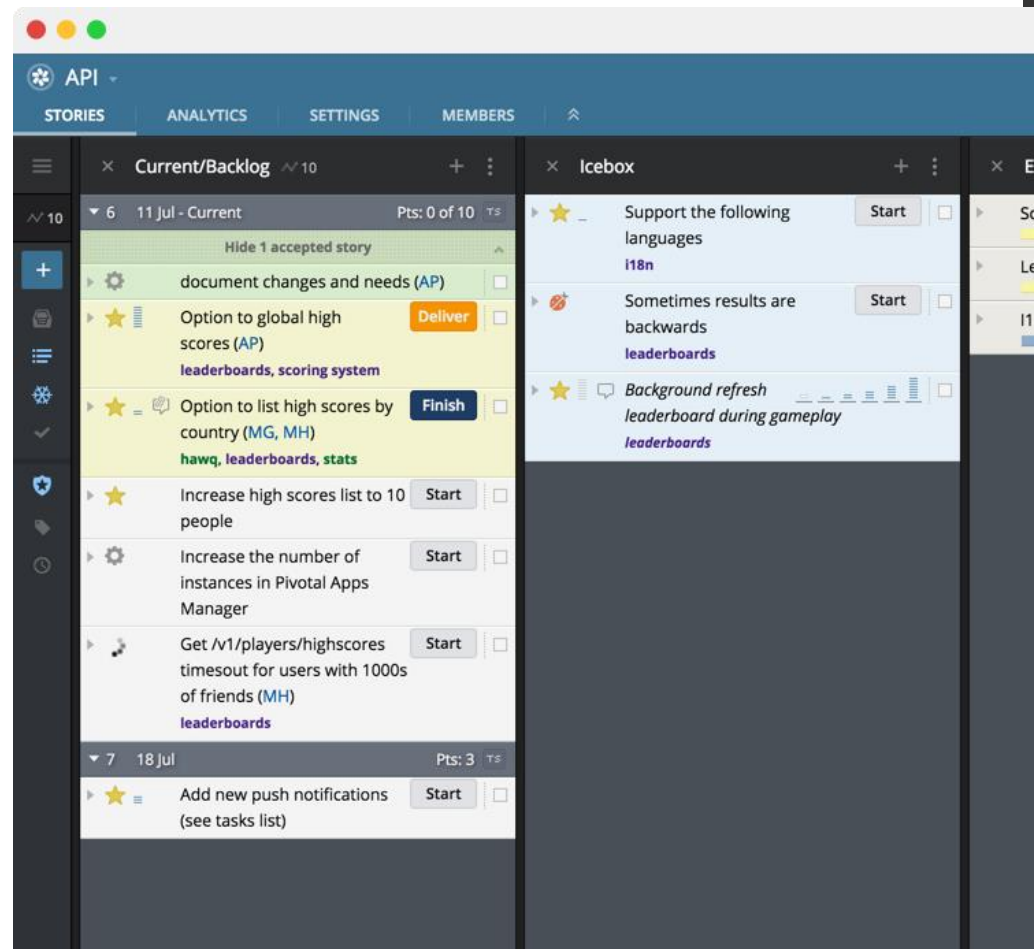
A story is a small, actionable bit of work that's either a placeholder for a future conversation or a reflection of one that already happened. Outlining what a user needs helps you focus on the what, not the how.

### Define the story

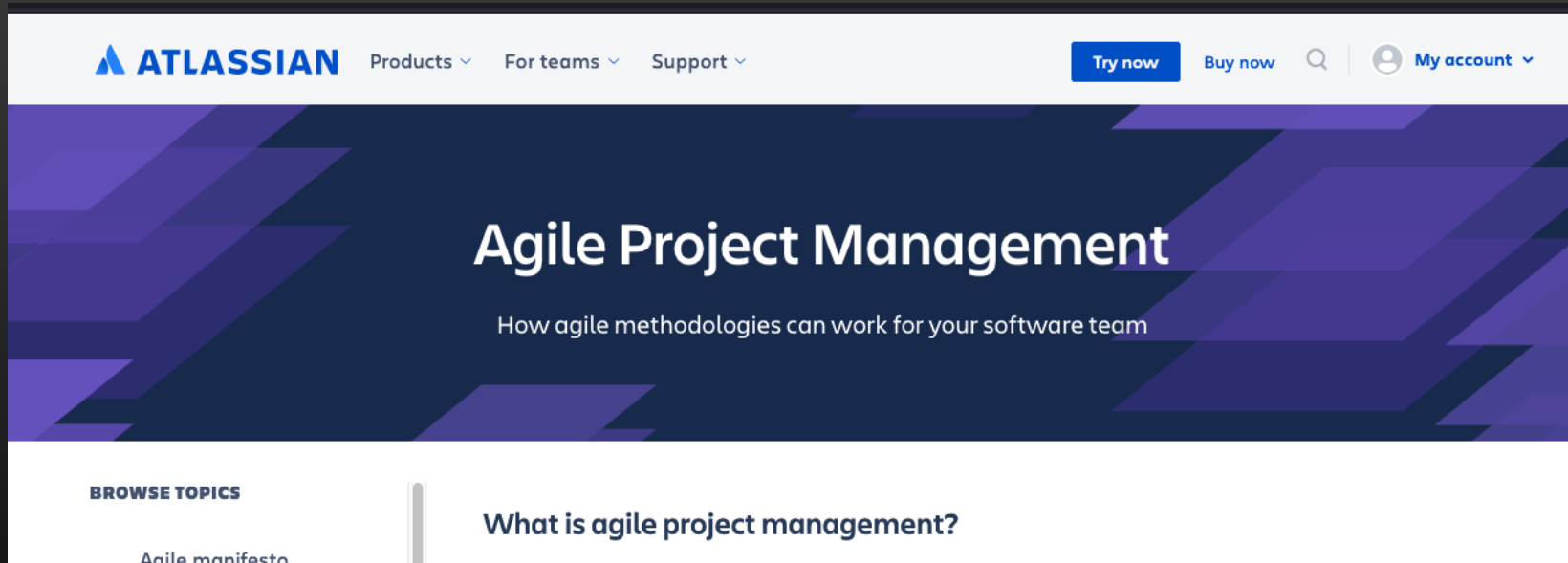
Select among features, bugs, and chores to strike a healthy balance between building new features, staying ahead of technical debt, and keeping the bugs from piling up.

### Estimate, then prioritize

Writing the story is just the beginning—now you get to rap about it. Estimate as a team to uncover the story's complexity. Choose among several point scales, then drag-and-drop to prioritize by iteration.

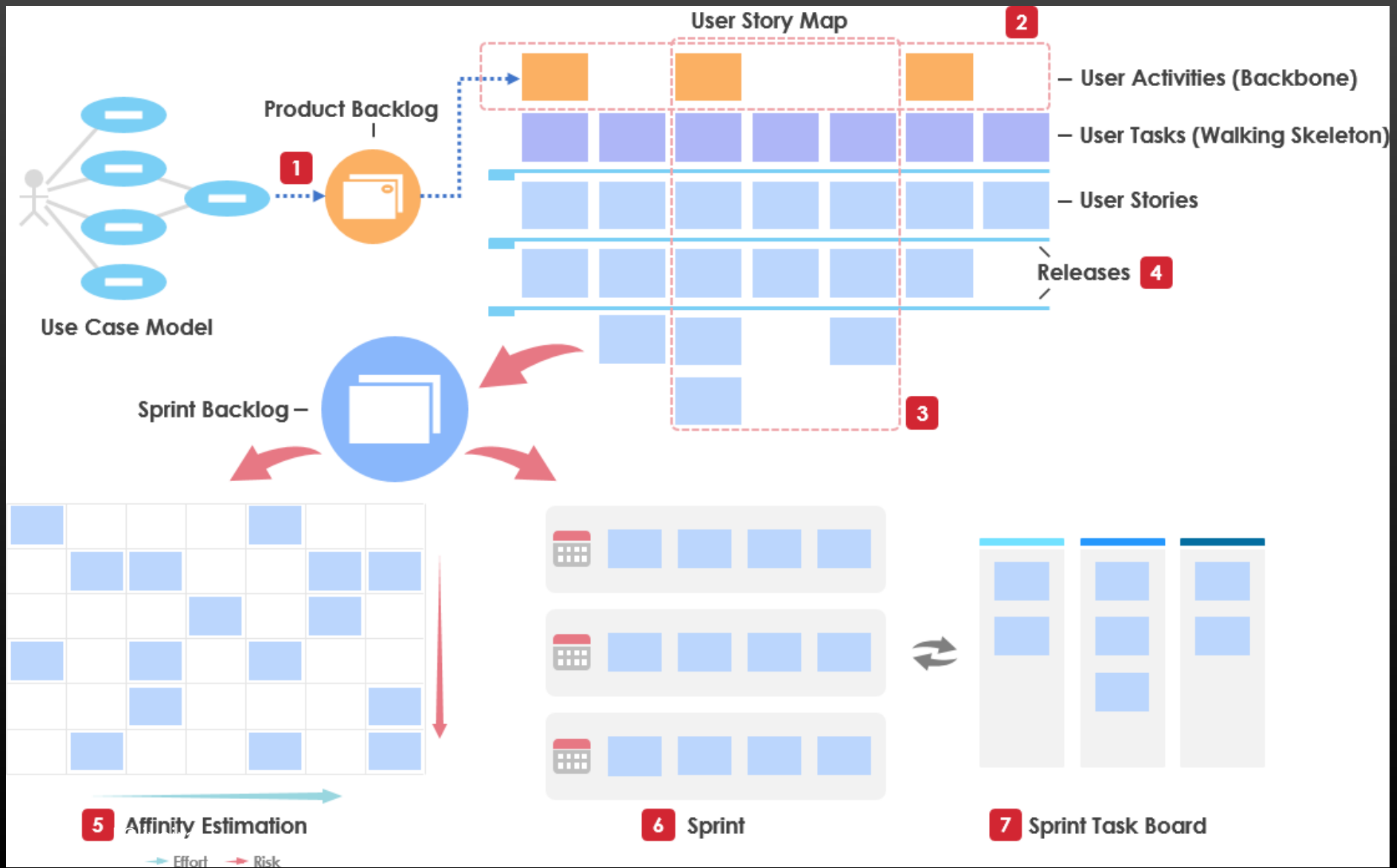






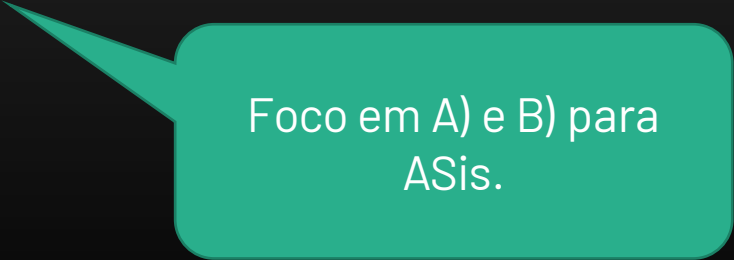
<https://www.atlassian.com/agile/project-management>

# Agile in Visual Paradigm



# Determinação de requisitos explorando cenários centrados no utilizador

- A) *Use cases* (casos de utilização)
- B) *User stories* (histórias)
- C) *User-centered design, UCD* (Desenho centrado no utilizador)
- D) *Customer Journey Map/Experience maps* (Mapas de experiência)



Foco em A) e B) para ASis.

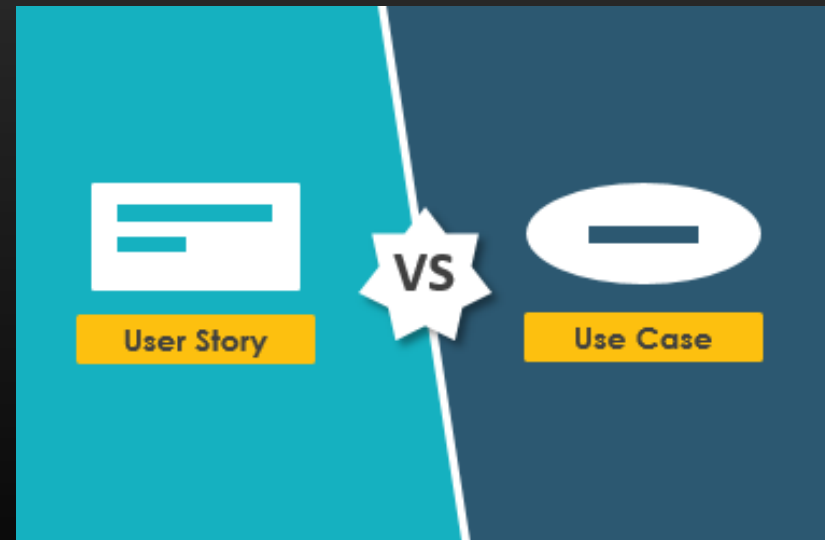
# Relembrar: casos de utilização e resultados associados

Um caso de utilização descreve uma sequência de interações entre um sistema e um ator externo da qual o ator obtém resultado de valor (para as suas motivações).

Os nomes dos casos de uso são sempre escritos a forma de um verbo seguido por um objeto.

O caso de utilização é complementado com uma descrição detalhada (segundo um padrão/narrativa estruturada)

Um caso de utilização inclui um fluxo principal e variantes.



ID and Name:	UC-4 Request a Chemical		
Created By:	Lori	Date Created:	8/22/13
Primary Actor:	Requester	Secondary Actors:	Buyer, Chemical Stockroom, Training Database
Description:	The Requester specifies the desired chemical to request by entering its name or chemical ID number or by importing its structure from a chemical drawing tool. The system either offers the Requester a container of the chemical from the chemical stockroom or lets the Requester order one from a vendor.		
Trigger:	Requester indicates that he wants to request a chemical.		
Preconditions:	PRE-1. User's identity has been authenticated. PRE-2. User is authorized to request chemicals. PRE-3. Chemical inventory database is online.		
Postconditions:	POST-1. Request is stored in the CTS. POST-2. Request was sent to the Chemical Stockroom or to a Buyer.		
Normal Flow:	<b>4.0 Request a Chemical from the Chemical Stockroom</b> <ol style="list-style-type: none"> <li>1. Requester specifies the desired chemical.</li> <li>2. System lists containers of the desired chemical that are in the chemical stockroom, if any.</li> <li>3. System gives Requester the option to View Container History for any container.</li> <li>4. Requester selects a specific container or asks to place a vendor order (see 4.1).</li> <li>5. Requester enters other information to complete the request.</li> <li>6. System stores the request and notifies the Chemical Stockroom.</li> </ol>		
Alternative Flows:	<b>4.1 Request a Chemical from a Vendor</b> <ol style="list-style-type: none"> <li>1. Requester searches vendor catalogs for the chemical (see 4.1.E1).</li> <li>2. System displays a list of vendors for the chemical with available container sizes, grades, and prices.</li> <li>3. Requester selects a vendor, container size, grade, and number of containers.</li> <li>4. Requester enters other information to complete the request.</li> <li>5. System stores the request and notifies the Buyer.</li> </ol>		
Exceptions:	<b>4.1.E1 Chemical Is Not Commercially Available</b> <ol style="list-style-type: none"> <li>1. System displays message: No vendors for that chemical.</li> <li>2. System asks Requester if he wants to request another chemical (3a) or to exit (4a).</li> <li>3a. Requester asks to request another chemical.</li> <li>3b. System starts normal flow over.</li> <li>4a. Requester asks to exit.</li> <li>4b. System terminates use case.</li> </ol>		
Priority:	High		
Frequency of Use:	Approximately 5 times per week by each chemist, 200 times per week by chemical stockroom staff		

# As histórias podem ser apresentadas num nível de abstração próximo do caso de utilização

**TABLE 8-2** Some sample use cases and corresponding user stories

Application	Sample use case	Corresponding user story
Chemical tracking system	Request a Chemical	As a chemist, I want to request a chemical so that I can perform experiments.
Airport check-in kiosk	Check in for a Flight	As a traveler, I want to check in for a flight so that I can fly to my destination.
Accounting system	Create an Invoice	As a small business owner, I want to create an invoice so that I can bill a customer.
Online bookstore	Update Customer Profile	As a customer, I want to update my customer profile so that future purchases are billed to a new credit card number.

# Mais frequentemente, a história é um desdobramento do caso de utilização

Recall that user stories are concise statements of user needs, in contrast to the richer description that a use case provides. In the agile world, a user story sometimes covers the same scope as an entire use case, but in other cases a user story represents just a single scenario or alternative flow. If an agile development team were discussing requirements for the CTS, they might come up with user stories such as the following:

*As a chemist, I want to request a chemical so that I can perform experiments.*

*As a chemist, I want to request a chemical from the Chemical Stockroom so that I can use it immediately.*

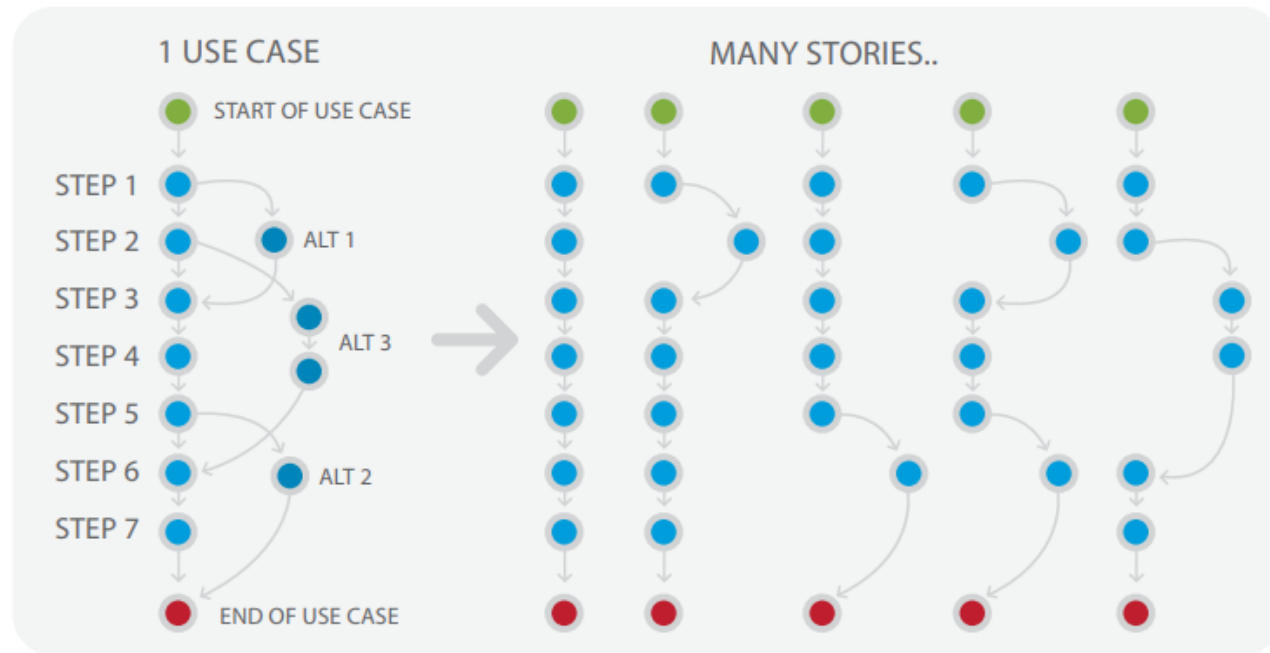
*As a chemist, I want to request a chemical from a vendor because I don't trust the purity of any of the samples available in the Chemical Stockroom.*

The first of these three stories corresponds to the use case as a whole. The second and third user stories represent the normal flow of the use case and the first alternative flow, from Figure 8-3.



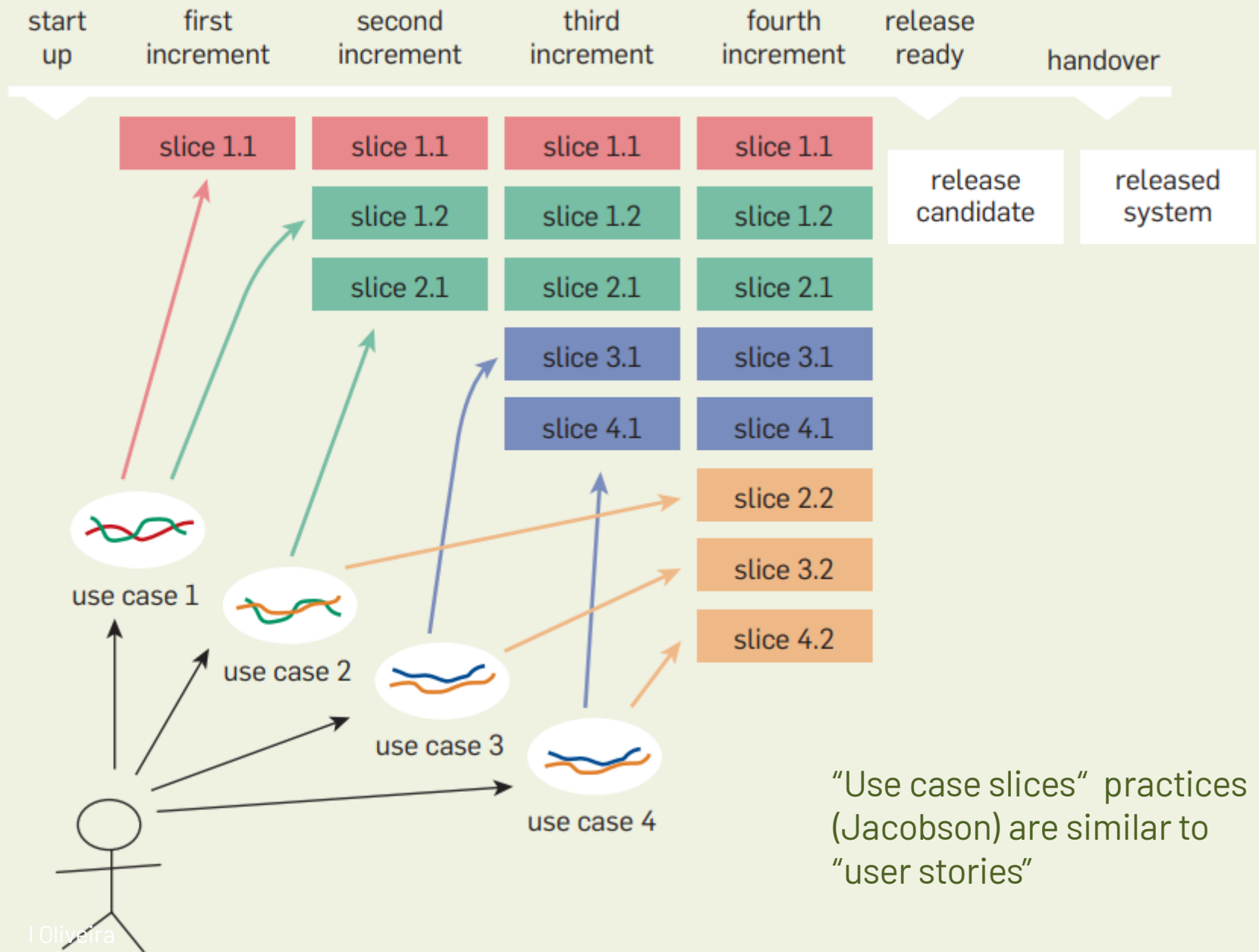
# Jacobson: flows in a use case match stories

A story is described by part of the use-case narrative, one or more flows and special requirements, and one or more test cases. The key to finding effective stories is to understand the structure of the use-case narrative. The network of flows can be thought of as a map that summarizes all the stories needed to describe the use case. **Figure 8** illustrates the relationship between the flows of a use-case narrative and the stories it describes.

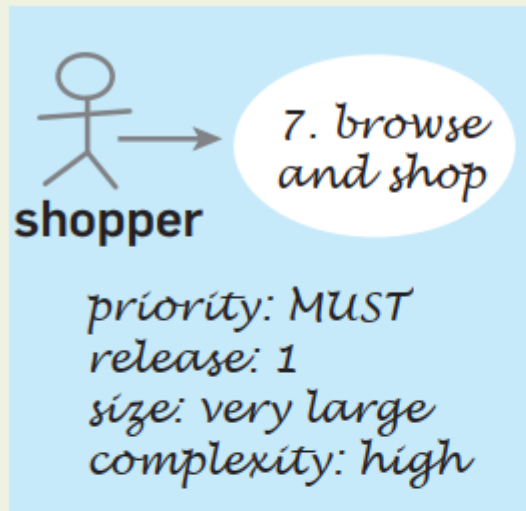


**FIGURE 8:**  
**THE RELATIONSHIP BETWEEN THE FLOWS AND THE STORIES**

**Figure 4. Use cases, use-case slices, increments, and releases.**



**Figure 5. Capturing the properties of a use case and its slices using sticky notes.**



a use case and its properties  
captured on a sticky note

7.1 select and buy  
1 product

flows: BF  
test: 1 product,  
default payment,  
valid details

5

7.3 support systems  
unavailable

flows: BF, A9, A10,  
A1, A12  
test: select product,  
provide information,  
disconnect each  
system in between<sup>13</sup>

7.2 select and buy  
100 products

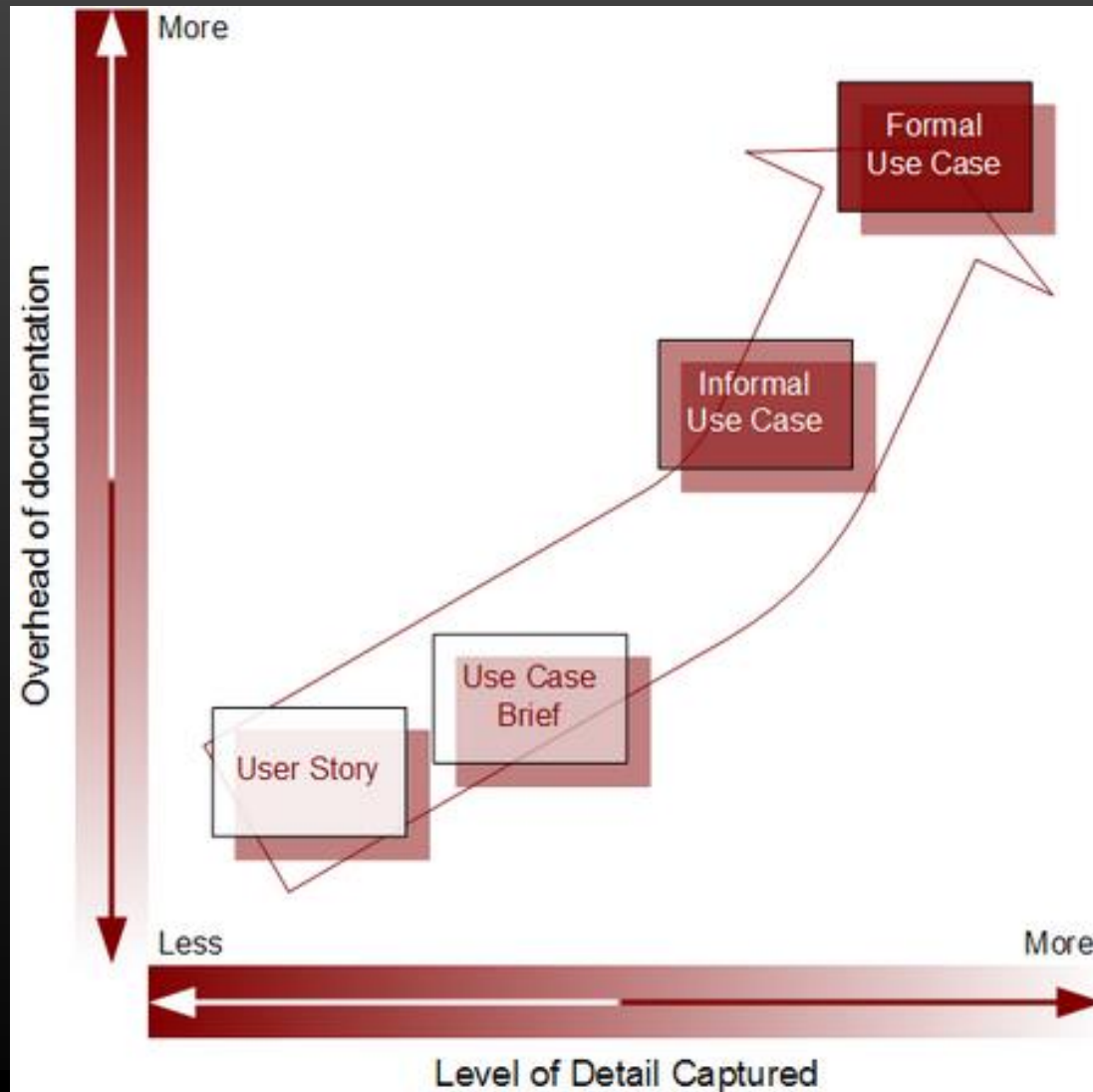
flows: BF  
test: 100 products,  
default payment,  
valid details

5

some slices from the  
use case captured on  
their own sticky notes

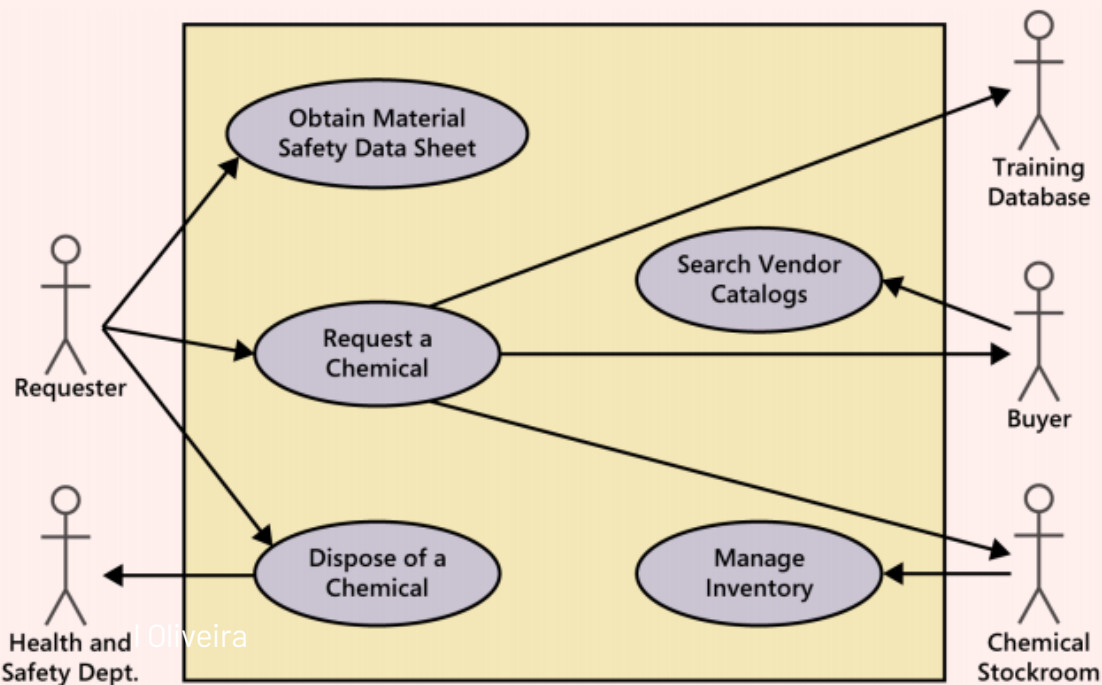
Em comum	Próprio dos casos de utilização	Próprio das histórias
<ul style="list-style-type: none"> <li>• Ambos seguem uma abordagem centrada na utilização</li> <li>• Ambos são contextos para descrever o diálogo utilizadores/sistema</li> <li>• Ambos resultam em casos de teste que representam os critérios de aceitação</li> <li>• Ambos podem ser estimados</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Visão geral</u> para ajudar a entender a extensão do sistema e o seu valor</li> <li>• Descreve <u>como o utilizador imagina a interação</u> com o sistema para atingir os seus objetivos.</li> <li>• Fornecer à equipa do projeto uma estrutura e contexto que falta à coleção das histórias</li> <li>• Pode examinar cada elemento do caso de utilização (fluxos, pré-condições, pós-condições, e assim por diante) para <u>procurar requisitos funcionais e não funcionais</u> pertinentes e para definir testes (ajuda a evitar que se ignorem requisitos.)</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Declaração concisa</u> das necessidades de um utilizador</li> <li>• Existe um acesso facilitado a especialistas do domínio (<u>refinar a história</u> conforme necessário)</li> <li>• Mais adequado para funcionar como um item do <u>backlog para o dia-a-dia</u> (Scrum, Kanban)</li> <li>• <u>Critérios de aceitação</u> explícitos</li> </ul>

# Posicionamento relativo dos casos de utilização e histórias



# Casos de utilização

ID and Name:	UC-4 Request a Chemical		
Created By:	Lori	Date Created:	8/22/13
Primary Actor:	Requester	Secondary Actors:	Buyer, Chemical Stockroom, Training Database
Description:	The Requester specifies the desired chemical to request by entering its name or chemical ID number or by importing its structure from a chemical drawing tool. The system either offers the Requester a container of the chemical from the chemical stockroom or lets the Requester order one from a vendor.		
Trigger:	Requester indicates that he wants to request a chemical.		
Preconditions:	PRE-1. User's identity has been authenticated. PRE-2. User is authorized to request chemicals. PRE-3. Chemical inventory database is online.		
Postconditions:	POST-1. Request is stored in the CTS. POST-2. Request was sent to the Chemical Stockroom or to a Buyer.		
Normal Flow:	<b>4.0 Request a Chemical from the Chemical Stockroom</b> 1. Requester specifies the desired chemical. 2. System lists containers of the desired chemical that are in the chemical stockroom, if any. 3. System gives Requester the option to View Container History for any container. 4. Requester selects a specific container or asks to place a vendor order (see 4.1). 5. Requester enters other information to complete the request. 6. System stores the request and notifies the Chemical Stockroom.		
Alternative Flows:	<b>4.1 Request a Chemical from a Vendor</b> 1. Requester searches vendor catalogs for the chemical (see 4.1.E1). 2. System displays a list of vendors for the chemical with available container sizes, grades, and prices. 3. Requester selects a vendor, container size, grade, and number of containers. 4. Requester enters other information to complete the request. 5. System stores the request and notifies the Buyer.		
	<b>4.1.E1 Vendor Chemical Is Not Commercially Available</b> 1. System displays message: No vendors for that chemical. 2. Requester asks if he wants to request another chemical (3a) or to exit (4a). 3. If Requester asks to request another chemical, system returns to normal flow over. 4. If Requester asks to exit, system terminates use case.		
	Frequency: 5 times per week by each chemist, 200 times per week by chemical if		



# Histórias

Users can view information about each job that is matched by a search.

Marco says show description, salary, and location.

■ Story Card 1.2 A story card with a note.

Try it with an empty job description.

Try it with a really long job description.

Try it with a missing salary.

Try it with a six-digit salary.

















■ Story Card 1.3 The back of a story card holds reminders about how to test the story.

**Table 1.3** *Splitting a story to create a better release plan.*

Iteration	Stories	Story Points
Iteration 1	A, B, C	13
Iteration 2	D, E, F	12
Iteration 3	G, H, Y	13
Iteration 4	J, Z	4



# Histórias



CIS board

Story Map by Easy Agile

+ Create Epic

Quick filters ▾

Sprint swimlanes ▾

...

?

Backlog

Navigation

CIS-1

Car Statistics

CIS-4

Phone Integration

CIS-3

Play Media

CIS-2

Fatigue Management

CIS-5

Sprint 1

21 2 0

The 'Young Professional' Driver / Install maps so that I can navigate to places easier

CIS-8

The 'Young Professional' Driver / Touch Screen to navigate easily

CIS-38

The 'Young Professional' Driver / Apple CarPlay Integration so that I can safely send and receive calls, texts and emails from my iOS device while driving

CIS-41

The 'Young Adult' Passenger / Allow Wifi Hotspot to support up to 5 devices

CIS-39

The 'Sunday' Driver / Enable 'Tourist Mode Assist' when travelling outside of standard travel radius

CIS-12

The 'Young Professional' Driver / Integrate local traffic data to better estimate travel times

CIS-10

The 'Sunday' Driver / Show miles/km to empty so that I don't run out of fuel

CIS-23

Sprint 2

32 0 0

The 'Sunday' Driver / Showcase local landmarks if travelling outside of standard travel radius

CIS-11

The 'Young Professional' Driver / Wear and Tear Report so that I can take preventative action to preserve the life of the car if needed

CIS-26

The 'Family' Driver / Microphone so that I can make phone calls safely while I'm driving

CIS-19

The 'Family' Driver / Graphical User Interface for easier use of media while driving

CIS-18

The 'Young Professional' Driver / Android Auto Integration so that I can safely send and receive calls, texts and emails while driving

CIS-42

The 'Family' Driver / Music Streaming service so that I can listen to music on trips

CIS-43

The 'Sunday' Driver / Safe Time Driving Display

CIS-44

Quick filters ▾

Sprint 1

The 'Family' Driver / 'Hot Cues' to make ... CIS-28

Sprint 2

Unscheduled

The 'Young Professional' Driver / Custom... CIS-9

The 'Family' Driver / A 'Favourites' Cont... CIS-37

The 'Sunday' Driver / Engine Temperatu... CIS-24

The 'Young Professional' Driver / Amaz... CIS-40

The 'Sunday' Driver / Show designated '... CIS-31

The 'Family' Driver / Object Detection fo... CIS-33

The 'Family' Driver / Safe Volume Adjus... CIS-17

The 'Young Professional' Driver / Aux C... CIS-16

The 'Young Professional' Driver / Do No... CIS-21

The 'Family' Driver / Time/Distance to m... CIS-25

The 'Young Adult' Passenger / Spotify In... CIS-35

# Os *story points* são usados para contruir o *burndown chart*



Story points que falta concluir na iteração.

## Benefits of usage-centric requirements

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The power of both use cases and user stories comes from their user-centric and usage-centric perspective. The users will have clearer expectations of what the new system will let them do than if you take a feature-centric approach. The customer representatives on several Internet development projects found that use cases clarified their notions of what visitors to their websites should be able to do. Use cases help BAs and developers understand the user's business. Thinking through the actor-system dialogs reveals ambiguity and vagueness early in the development process, as does generating tests from the use cases.

Overspecifying the requirements up front and trying to include every conceivable function can lead to implementing unnecessary requirements. The usage-centric approach leads to functionality that will allow the user to perform certain known tasks. This helps prevent "orphan functionality" that seems like a good idea but that no one uses because it doesn't relate directly to user goals.

# Benefits from Usage-Centric Approach

User's terminology  
is applied

Reveals  
requirements for  
users to get  
tasks done

Helps analysts  
understand  
application domain

Helps avoid  
building  
unnecessary  
functionality

Permits early  
drafting of  
functional tests

Helps set  
implementation  
priorities on  
functional  
requirements



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Webinar Series

<https://youtu.be/MwimXkY5G5o?t=1695>

# Algumas ideias a reter

- Os projetos ágeis (especialmente os da Scrum) utilizam um *backlog* do produto, que é uma lista prioritária da funcionalidade a desenvolver.
- Os itens do *backlog* do produto podem ser o que a equipa quiser, mas as histórias surgiram como a forma mais comum de representar os itens do *backlog* do produto (em software).
- Ambos os casos de utilização e as histórias focam-se em conversas e uso do sistema por pessoas.
- Os casos de utilização fornecem mais estrutura e uma forma de documentar os detalhes recolhidos em análise.
- As histórias dos utilizadores são refinadas conforme necessário. Os detalhes são acrescentados, em colaboração regular com os especialistas do domínio.
- As histórias recorrem a exemplos curtos para definir condições de aceitação.

# References

Core readings	Suggested readings
<ul style="list-style-type: none"><li>• Jacobson, I., Spence, I., &amp; Kerr, B. (2016). <a href="#">Use-case 2.0</a>. <i>Communications of the ACM</i>, 59(5), 61–69.</li><li>• “<a href="#">User Story vs Use Case for Agile Software Development</a>”, Visual Paradigm</li></ul>	<ul style="list-style-type: none"><li>• Jacobson, I., Spence, I., &amp; Bittner, K. (2011). <a href="#">Use-Case 2.0</a> <i>The Guide o Succeeding with Use Cases</i>. [e-Book]</li><li>• <a href="#">User story</a> (VisualParadigm handbook)</li><li>• <a href="#">EasyAgile training materials</a></li></ul>