



MercadoLibre

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Decisiones de Estructura, Infraestructura y
Metodología para el Desarrollo Ágil





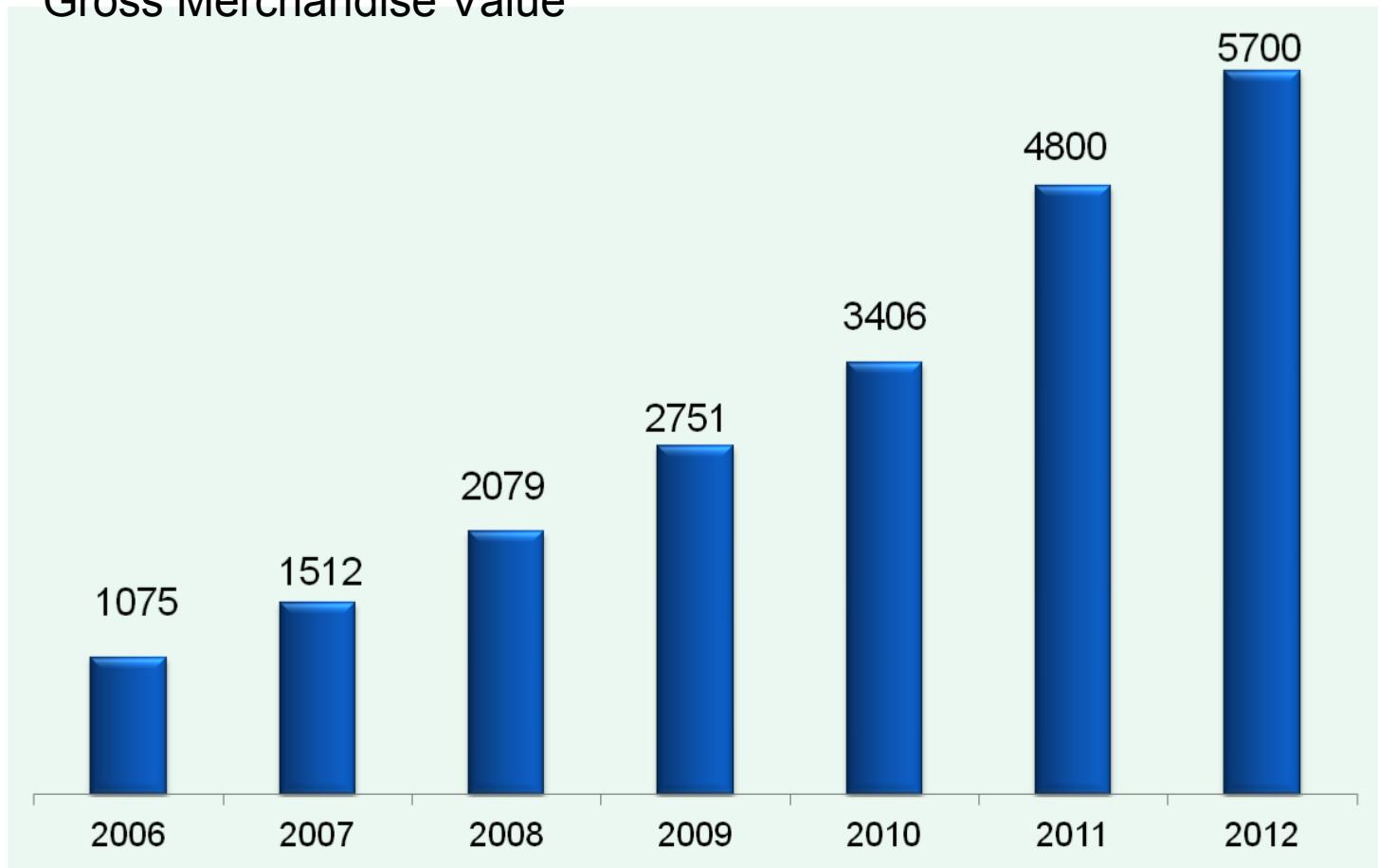
Agenda

- Historia
- Estructura
- Infraestructura
- Metodología
- Preguntas



Historia

Gross Merchandise Value





Historia

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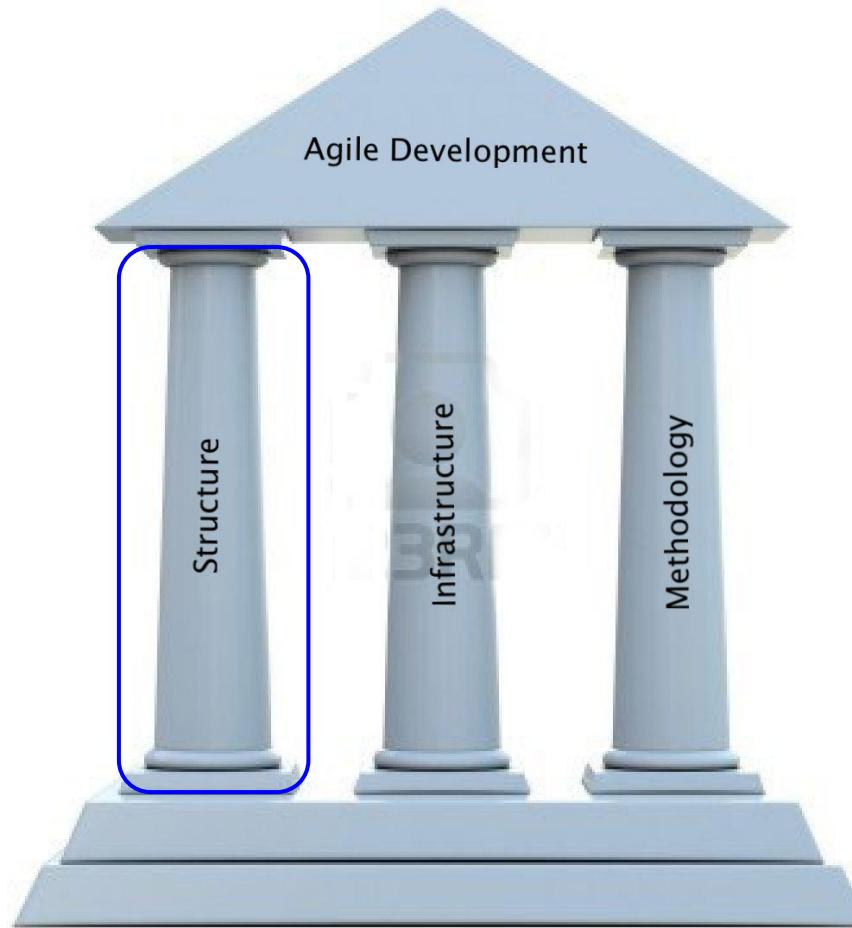


Desarrollo Ágil





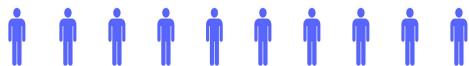
Desarrollo Ágil





Estructura

1999



Developers: 10

Centros de Desarrollo: 1

Releases por semana: 1

DB: 1

Aplicaciones: 1

Servidores: decenas

Estructura

2013



Developers: 200 (+250)

Centros de Desarrollo: 8

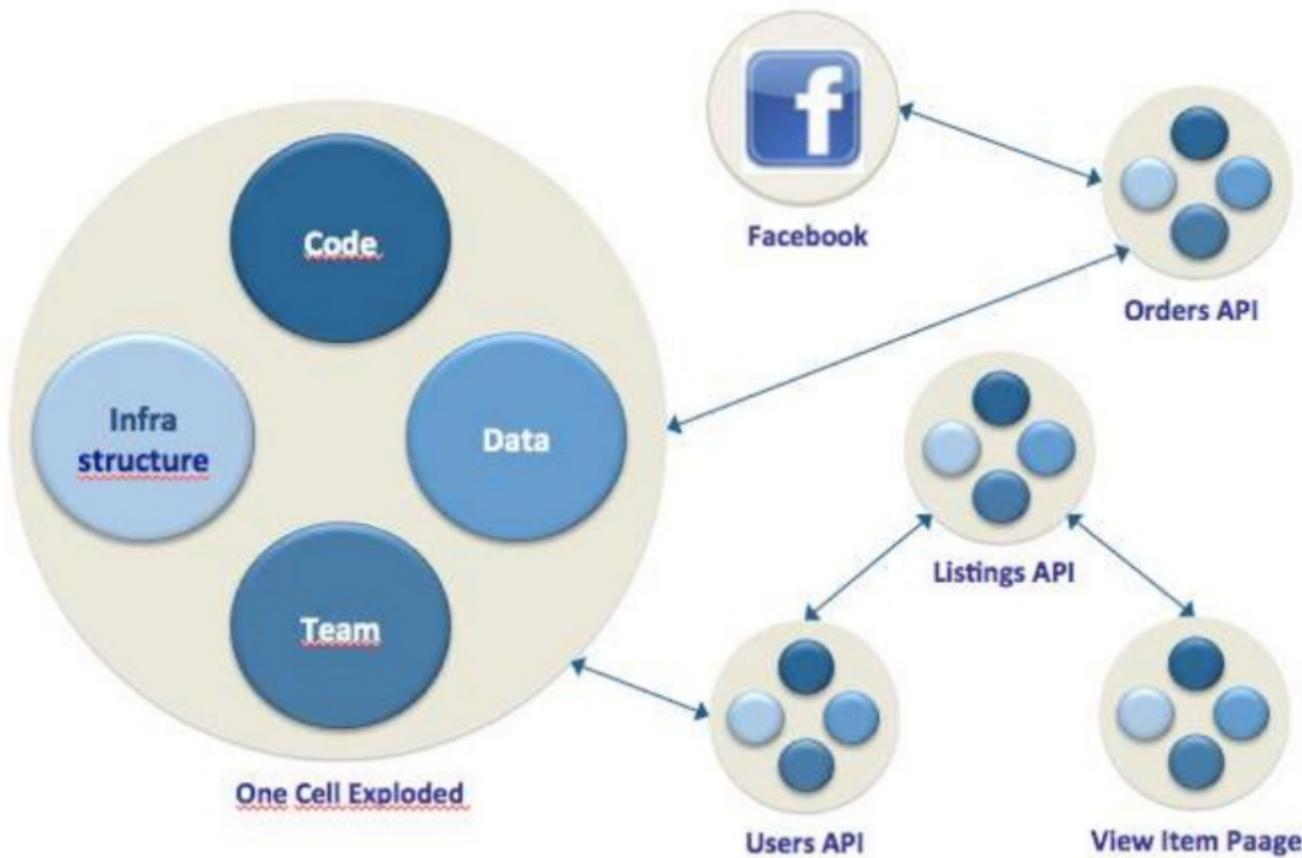
Releases por semana: 30

DB: 30

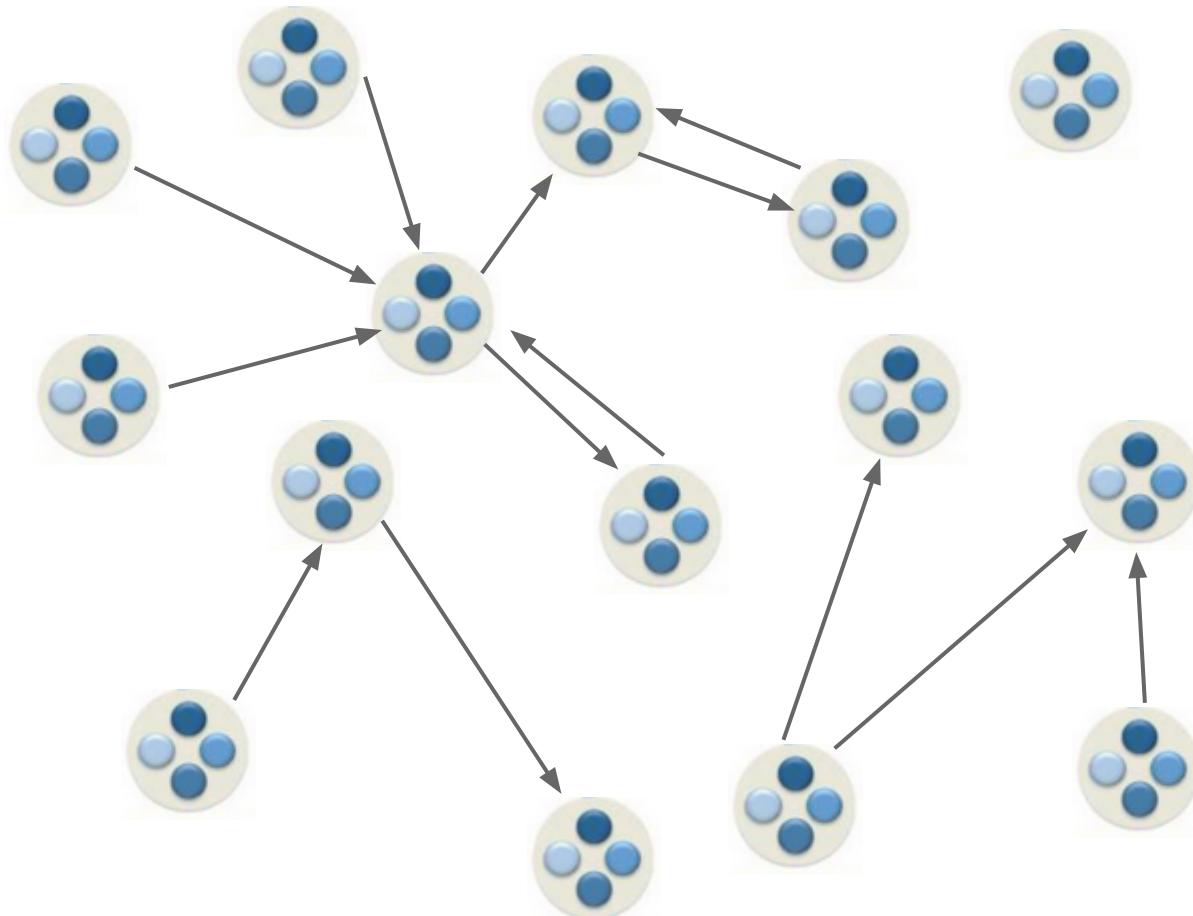
Aplicaciones: cientos

Servidores: miles

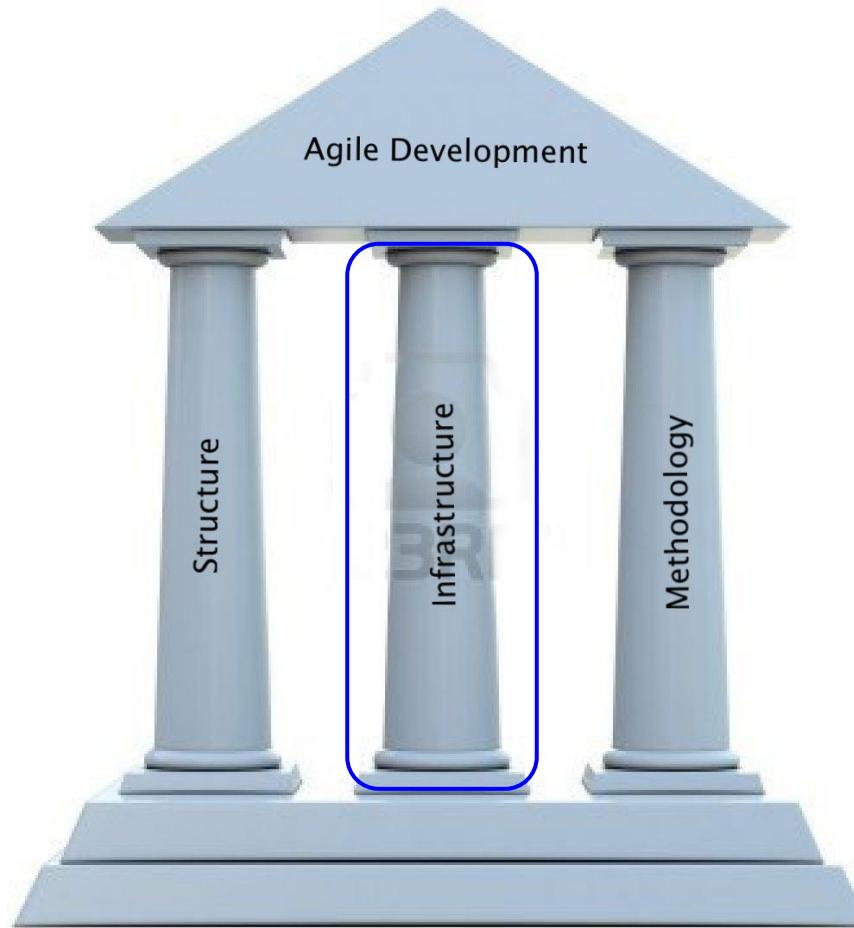
Estructura



Estructura



Infraestructura



Infraestructura



1 DB (+2000 tablas, 10 Teras)
Cientos de servers físicos
1 Release cada 15 días
1 Repositorio de código

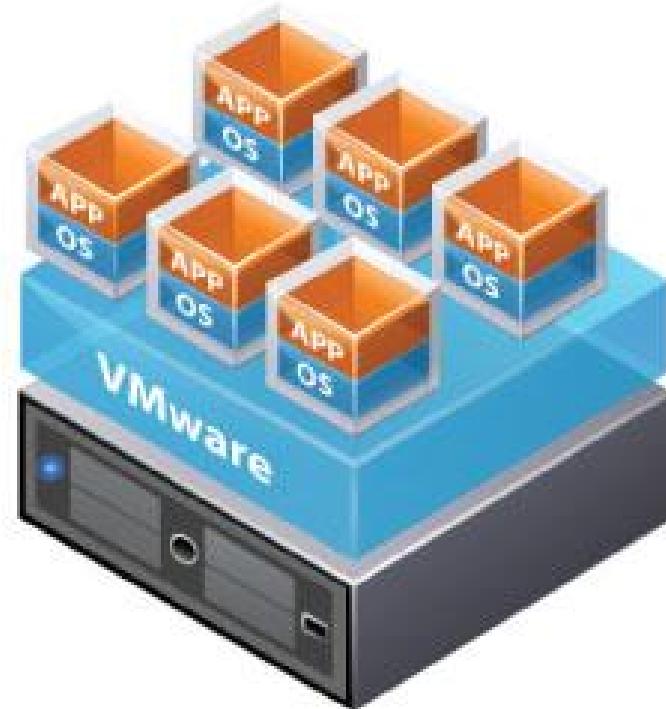
17 DBs especializadas
Miles de servers virtuales
Decenas de releases diarios
Decenas de repositorios

Infraestructura

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Traditional Architecture



Virtual Architecture

Infraestructura





Infraestructura



MeliCloud

- Provisioning de HW
- DB as a Service
- Storage as a service
- Load Balancing as a Service
- Message Queues as a Service
- Memcache as a Service
- MongoDB as a Service



Infraestructura

Create a webserver

```
curl -X POST api.melicloud.com/compute/instances -H "x-auth-token: TOKEN" -d '{"pool":"DEPT-APP-SERV-SCOPE-GAV"}'
```

Create a memcache server

```
curl -X POST api.melicloud.com/cache/memcached/instances -d '{"cluster": "CLUSTER_NAME", "size": SIZE}' -H "x-auth-token: TOKEN" -H 'content-type: application/json'
```

Create a server pool

```
curl -X POST api.melicloud.com/compute/pools -d '{"app":"APP", "serv":"SERV", "scope":"SCOPE", "version":"VERSION"}' -H "x-auth-token: TOKEN"
```

Create a DB Cluster

```
$ curl -X POST http://api.melicloud.com/db/clusters -H 'x-auth-token:<put_your_token_here>' -H 'Content-type:application/json' -d@credbc.json | python -mjson.tool
```



Infraestructura

Cómo hacen los departamentos para compartir datos?

- API
- Réplicas de DB
- Feeds (Push notifications)



Infraestructura

<https://api.mercadolibre.com/items/MLA474405875>

Items

```
{  
  "id": "MLA474405875",  
  "site_id": "MLA",  
  "title": "Dueño Vende Chalet De 3 Amb. Para Refaccionar. Vendo Ya!!!",  
  "subtitle": null,  
  "seller_id": "48924802",  
  "category_id": "MLA1468",  
  "price": 550000,  
  "base_price": 550000,  
  "currency_id": "ARS",  
  "initial_quantity": 1,  
  "available_quantity": 1,  
  "sold_quantity": 0,  
  "buying_mode": "classified",  
  "listing_type_id": "gold_premium",  
  "start_time": "2013-08-31T12:51:53.000Z",  
  "stop_time": "2013-11-29T12:51:53.000Z",  
  "condition": "used",  
  "permalink": "http://casa.mercadolibre.com.ar/MLA-474405875-dueno-vende-chalet-de-3-amb-para-refaccionar",  
  "thumbnail": "http://mla-s2-p.mlstatic.com/4627-MLA3810683342_022013-I.jpg",  
  "secure_thumbnail": "https://a248.e.akamai.net/mla-s2-p.mlstatic.com/4627-MLA3810683342_022013-I.jpg",  
  "pictures": [...],  
  "video_id": null,  
  "descriptions": [...],  
  "accepts_mercadopago": false,  
  "non_mercado_pago_payment_methods": [  
  ],  
}
```

[expand all](#)

API description

Retrieves the information of a listed item.

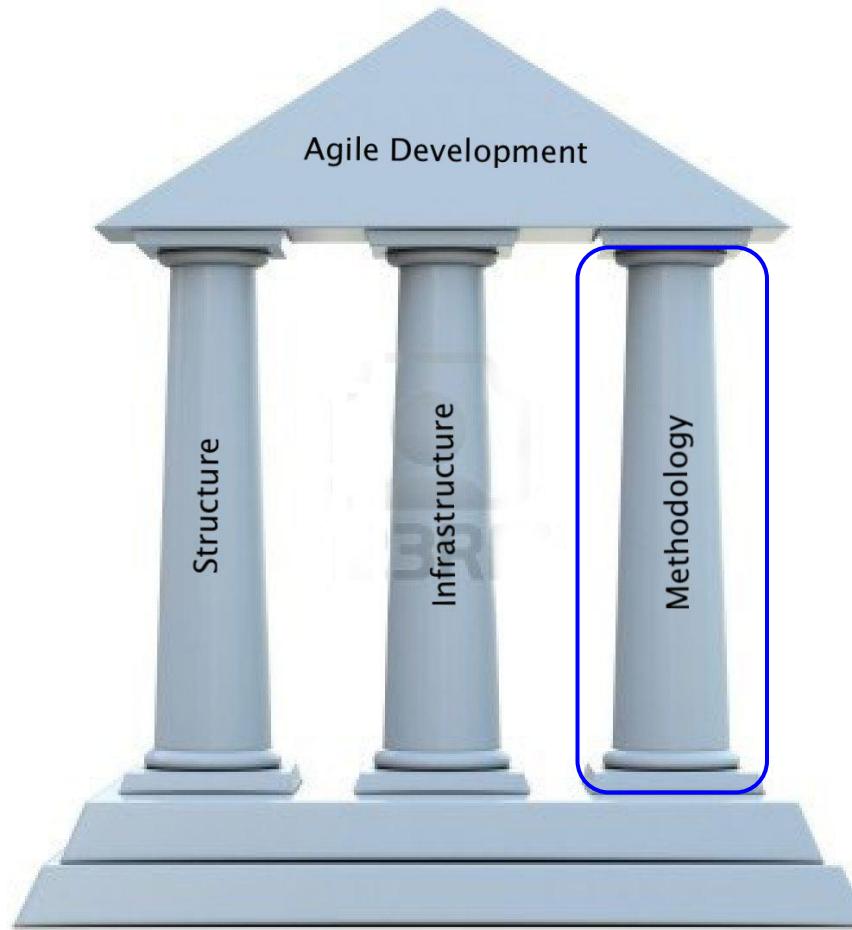
[▷ Attributes](#)

[▷ Allowed methods](#)

[▷ Related resources](#)

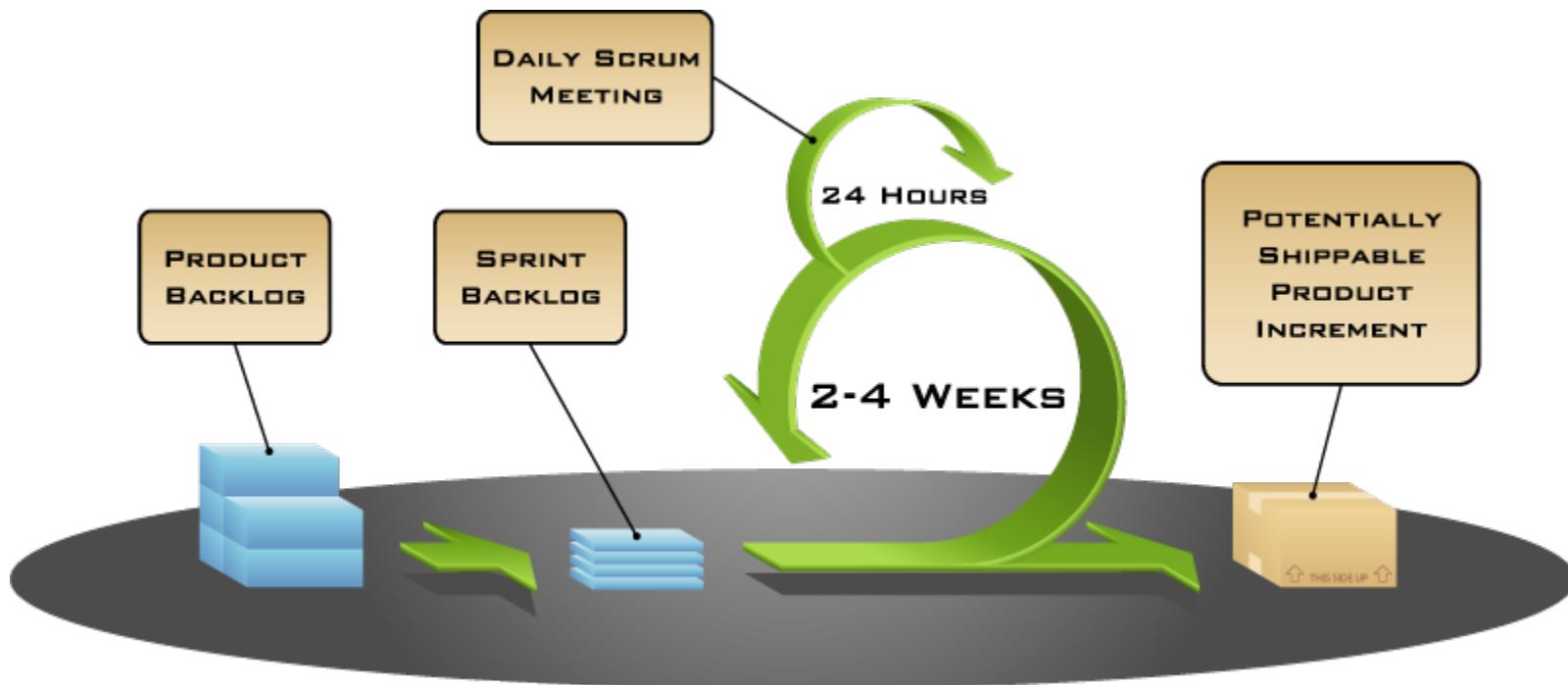


Desarrollo Ágil



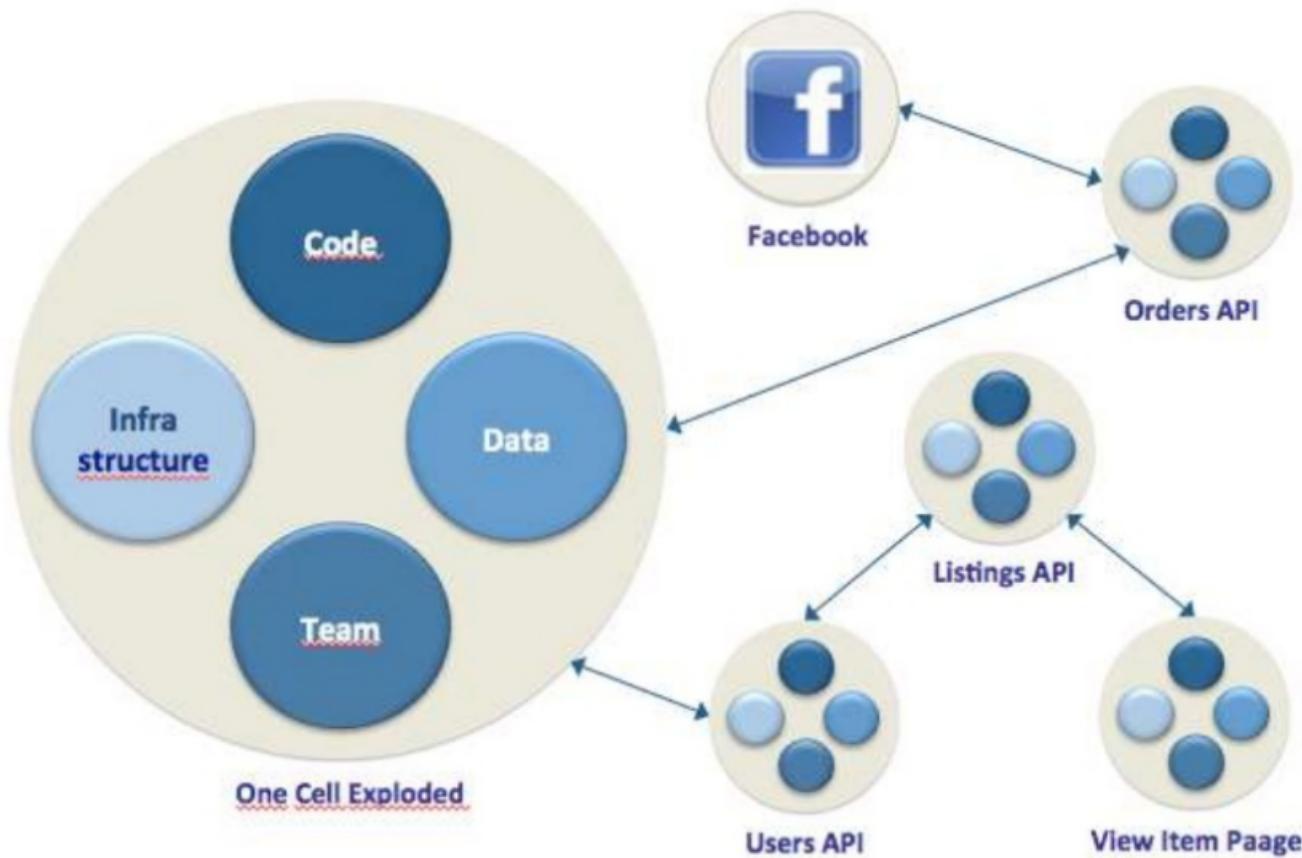
Scrum

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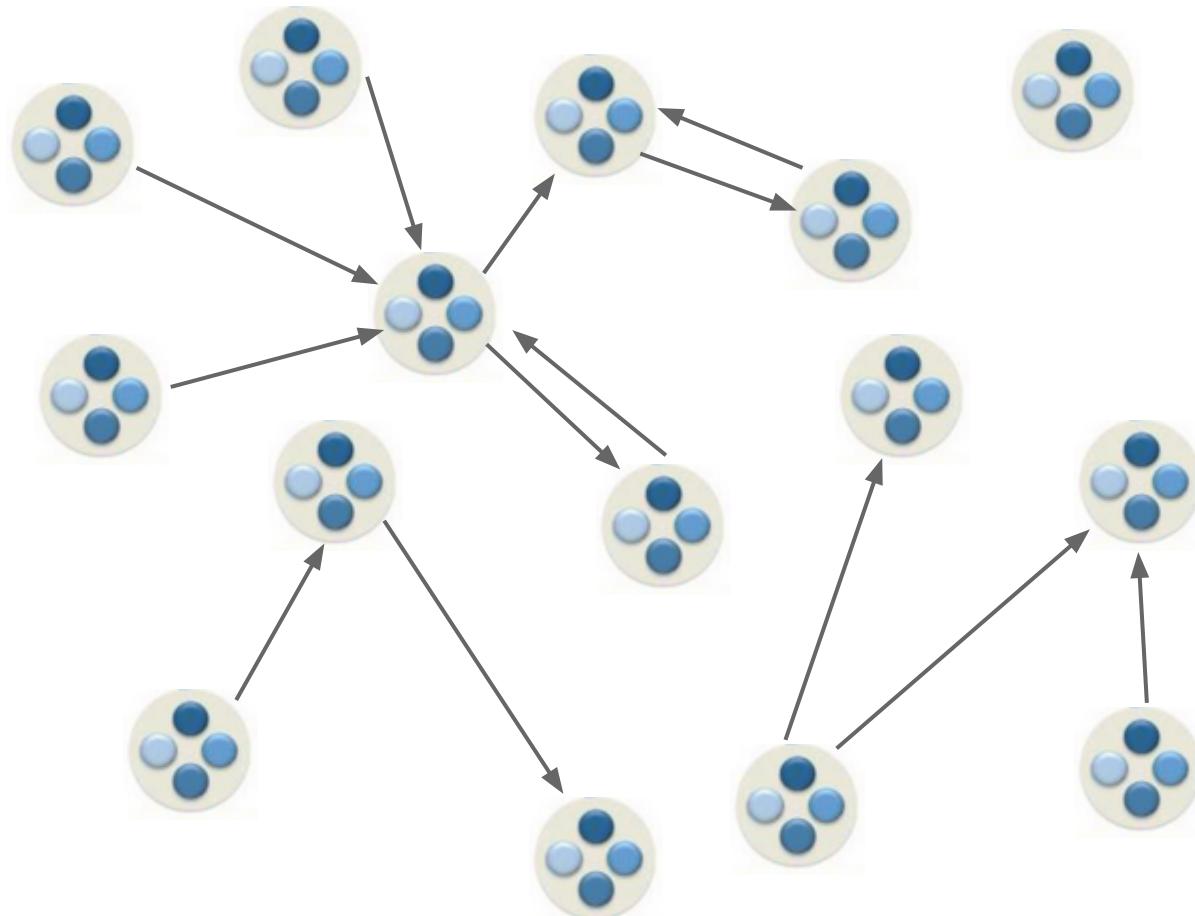


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Estructura



Estructura





Estructura

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Strategic Initiative													
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Strategic Initiative	Initiative	Description	BA	SL	CS	CB	UY	BR	VE	PA	Total	Sponsor	Manager
Other - Admin	Payments to ML	TBD	2								2	Nemesio L	Lucas D
Other - Payments	MP Platform. Account & Movements NW	Withdraw NW & API	3								3	Osvaldo G	Ariel Leiva
Other - Payments	MP Payments Gateway	Continue initiatives to improve NPS. Chile NW. New MPB provider. Maintenance.	6								6	Osvaldo G	Lucas D
Other - Payments	Review MP Restrictions & Bureaus	Focus on restrictions generation and reduce false positives. Finish Bureaus rollout					2				2	Osvaldo G	Eduardo Gaitan Gaston Medina
Other - Payments	New Means of payments	Finish new payments admin. Add new payment methods for Brazil, Mexico & Argentina					2				2	Osvaldo G	Gaston Medina (Ariel Leiva)
Other- Marketing	Email Marketing	Connect HardBounce and Optout Filter with Emarsys automatically, so that every campaign gets filtered. Migrate all campaigns to Dejavú 2					2				2	Daniel F	Diego C
Other- Marketing	Database for user Segmentation	Create a centralized DB for user segmentation starting with MP variables and Purchase proportion scoring, so that we can automate some MP campaigns and PUSH without SPSS (simplify simplify)					2				2	Daniel F	Diego C
Other- Marketing	Email Preferences in NW	NW FE Rollout, improvements					3				3	Daniel F	Diego C
(Sumo 1 de Vic R. en BA)													
Required devs:													
Available devs:													
Difference:													

Required devs: 85 47 6 30 15 8 5 1 197
Available devs: 84 47 6 30 15 8 5 1 196
Difference: -1 0 0 0 0 0 0 0 -1





Actores: Soft. Eng. + Arquit.



Actores: UX + Comunicación



designer

User Interface Designer with a passion for designing beautiful and functional user experiences. Minimalist who believes that less is more.



<coder>

Front End Developer who focuses on writing clean, elegant and efficient code. Love HTML5, CSS3, WordPress and a touch of jQuery.

```
<html>
  height:184px;
  class="jedi">
    CS3 HTML5
    color:#000;
    jQuery
```



Actores: Sponsor + Stakehold

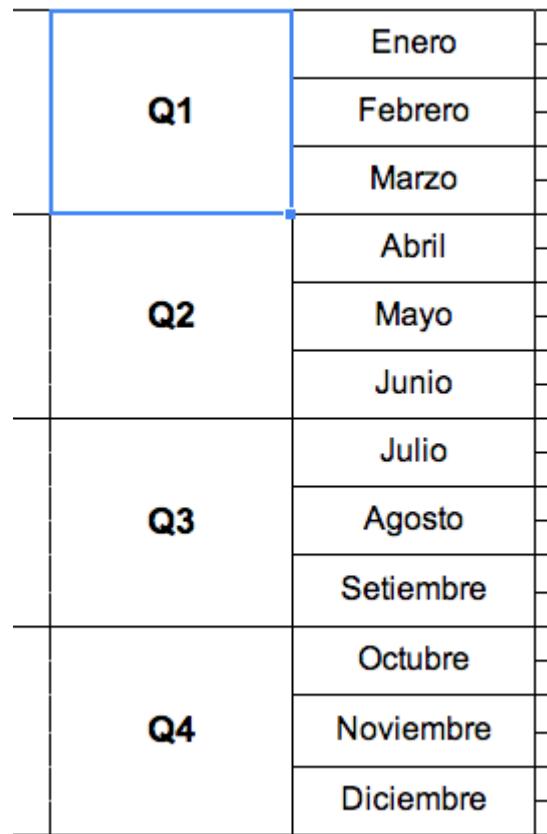


Actores

- Soft. Engineer's (FrontEnd, BackEnd, API's, Mobile)
- User eXperience
- Comunicación
- Architecture (Operations, DBA, etc.)
- Sponsor
- Stakeholder's

Company Scrum: Loops

El **Loop** es nuestro intervalo de tiempo, sobre el cual planteamos los obj. trimestrales





Company Scrum: Sprints

Dentro del **Loop** hacemos los **Sprints** de dos semanas de duración

Q1	Enero	Sprint 0 Sprint 1
	Febrero	Sprint 2 Sprint 3
	Marzo	Sprint 4 Sprint 5
	Abril	Sprint 0 Sprint 1
	Mayo	Sprint 2 Sprint 3
Q2	Junio	Sprint 4 Sprint 5
	Julio	Sprint 0 Sprint 1
	Agosto	Sprint 2 Sprint 3
	Setiembre	Sprint 4 Sprint 5
	Octubre	Sprint 0 Sprint 1
Q3	Noviembre	Sprint 2 Sprint 3
	Diciembre	Sprint 4 Sprint 5



Company Scrum: Sp. Meeting

En cada **Sprint** realizamos las reuniones de **Planning, Daily's y Retrospective**

Q1	Enero	Sprint 0	Planning's
		Sprint 1	
	Febrero	Sprint 2	Daily's
		Sprint 3	
	Marzo	Sprint 4	Retrospective's
		Sprint 5	
Q2	Abril	Sprint 0	Planning's
		Sprint 1	
	Mayo	Sprint 2	Daily's
		Sprint 3	
	Junio	Sprint 4	Retrospective's
		Sprint 5	
Q3	Julio	Sprint 0	Planning's
		Sprint 1	
	Agosto	Sprint 2	Daily's
		Sprint 3	
	Setiembre	Sprint 4	Retrospective's
		Sprint 5	
Q4	Octubre	Sprint 0	Planning's
		Sprint 1	
	Noviembre	Sprint 2	Daily's
		Sprint 3	
	Diciembre	Sprint 4	Retrospective's
		Sprint 5	

Company Scrum: Updates

En cada **Loop** hacemos **Prod. Updates**, participan los Sponsor, Stakeholder entre otros actores de la cía.

Core Upd.	Q1
MercadoPago Upd.	
Core Upd.	Q2
MercadoShop Upd.	
Classifieds Upd.	Q3
Retreat IT	
Retreat Estratégico	Q4
Core Upd.	

En el año se dan dos eventos estratégicos:

Retreat IT, participa todo el sector de Tecn. Aquí nos ponemos al día entre las diferentes subáreas y países del sector.

Retreat Estratégico, es donde se expone la visión y plan del próx. año.

Los **Retreat** son como una **Planning** a nivel anual (c/u en su área).



Company Scrum: Big Picture

Por cada loop realizamos una adaptación de Scrum (**Loop Planning, Loop Review con el Sponsor, Loop Results**).

El proceso es iterativo y el puntaje de cada proyecto está relacionado con el Bonus Plan.

Core Upd.	Loop Planning	Q1	Enero	Sprint 0	Planning's Daily's Retrospective's	Loop Review	
				Sprint 1			
MercadoPago Upd.	Loop Planning		Febrero	Sprint 2			
				Sprint 3			
Loop Results	Loop Planning		Marzo	Sprint 4			
				Sprint 5			
Core Upd.	Loop Planning	Q2	Abril	Sprint 0	Planning's Daily's Retrospective's	Loop Review	
				Sprint 1			
MercadoShop Upd.	Loop Planning		Mayo	Sprint 2			
				Sprint 3			
Loop Results	Loop Planning		Junio	Sprint 4			
				Sprint 5			
Classifieds Upd.	Loop Planning	Q3	Julio	Sprint 0	Planning's Daily's Retrospective's	Loop Review	
				Sprint 1			
Retreat IT	Loop Planning		Agosto	Sprint 2			
				Sprint 3			
Loop Results	Loop Planning		Setiembre	Sprint 4			
				Sprint 5			
Retreat Estratégico	Loop Planning	Q4	Octubre	Sprint 0	Planning's Daily's Retrospective's	Loop Review	
				Sprint 1			
Core Upd.	Loop Planning		Noviembre	Sprint 2			
				Sprint 3			
Loop Results	Loop Planning		Diciembre	Sprint 4			
				Sprint 5			



Company Scrum: Resúme

- Ciclo Anual -> Retreat Compañía y Retreat IT
Comunicación entre unidades de negocio de la
compañía (CX, Motors, Core, Mkt, etc)
- Ciclo Trimestral -> Revisiones de Loop
(evaluación de Sponsor)
- Ciclo Mensual -> Updates de producto
- Ciclo Quincenal -> A nivel equipo de desarrollo



Company Scrum: Resume

Sprints: Two Weeks

- Planning -> 1 By Sprint
- Daily -> 9 By Sprint
- Retrosp. -> 1 By Sprint

Demo Taskboard (Planning & Daily)

Demo Retrospective (Retrospective)

Trello & Pictures (Planning, Daily)



Trello: Taskboard Tool

S T R I C T L Y P R I V A T E A N D C O N F I D E N T I A L

Trello

MLU Development Board

To Do

- ¿Cómo saber cuando enviar a WIP?
- Top Categories API Refactor
- API de Contactos
- Segurización API Motors-Prices
- Flow de Notificación de Venta
- FIFE job
- GTM en Registros

WIP

- Acerca de esta lista...
- Dashboard
- API Motors Prices
- Cierre PMS
- Universidad Meli (UML)

Done

- Resultados Sprint 5 - Q3
- Resultados Sprint 3 - Q3
- Resultados Sprint 2 - Q3
- Resultados Sprint 1 - Q3
- 2013 Q3 Sprint 0

Stand By [2]

- ¿Cuándo puede entrar a Stand By?

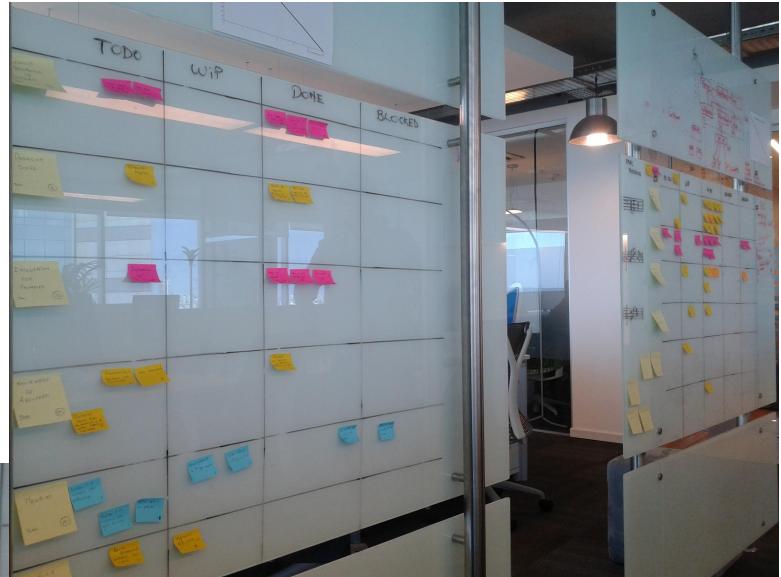
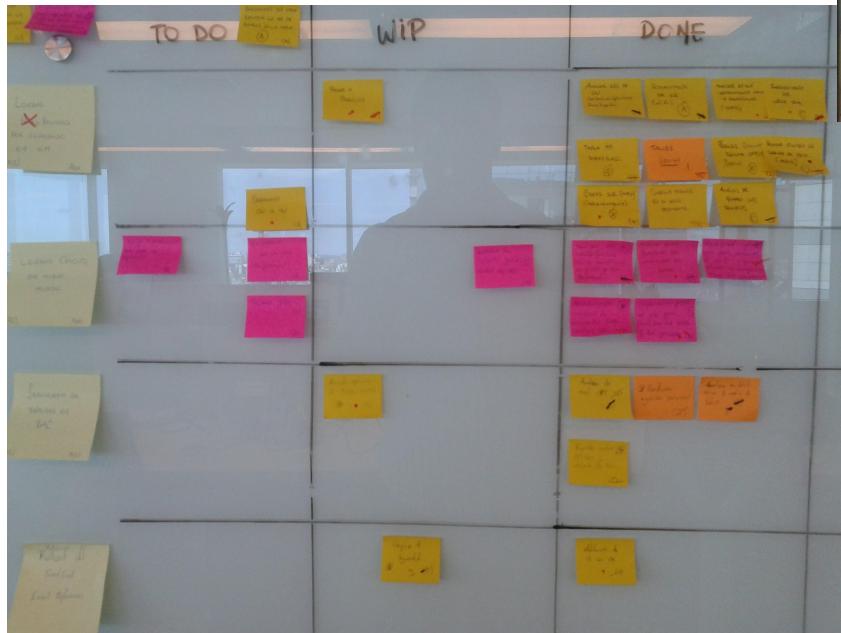
Add a card...

Add a list...



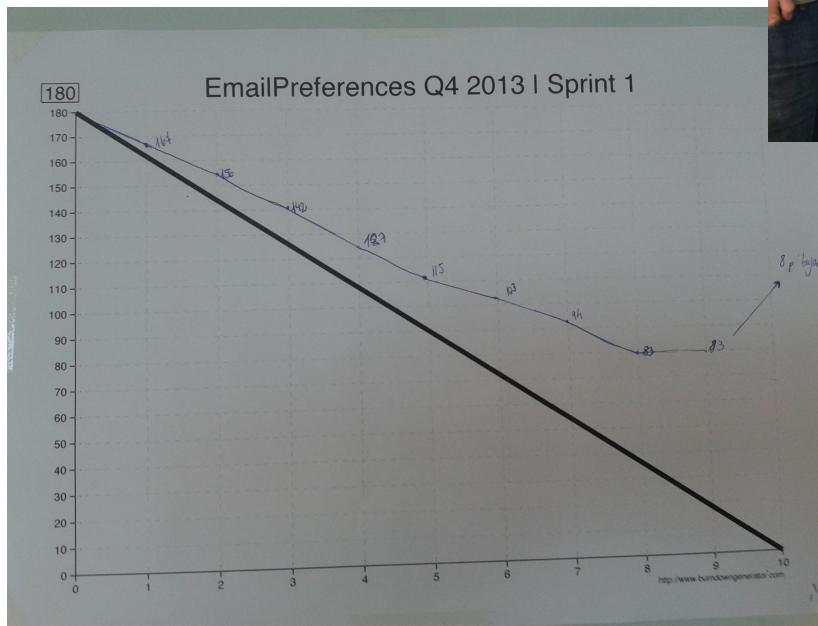


Taskboard

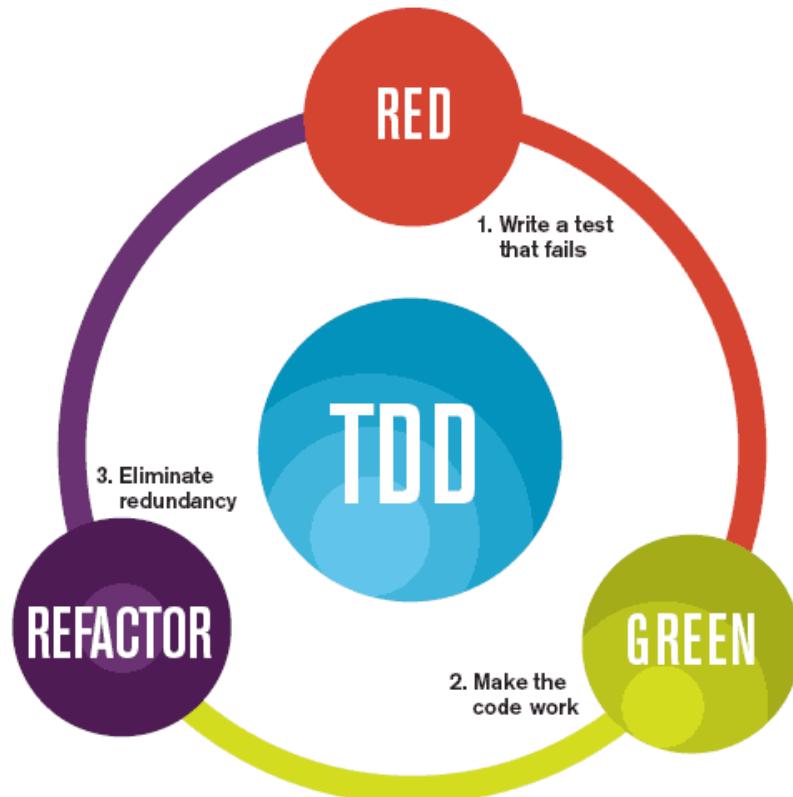




Team & Burndown



Calidad



The mantra of Test-Driven Development (TDD) is "red, green, refactor."



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ref: Techmeetup

