



Mobile @ MercadoLibre

Meetup MobileUY / Abril 2016

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@marbarfa



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Scaling Mobile Development



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Publicidad



**mercado
libre**



**mercado
envíos**



**mercado
pago**



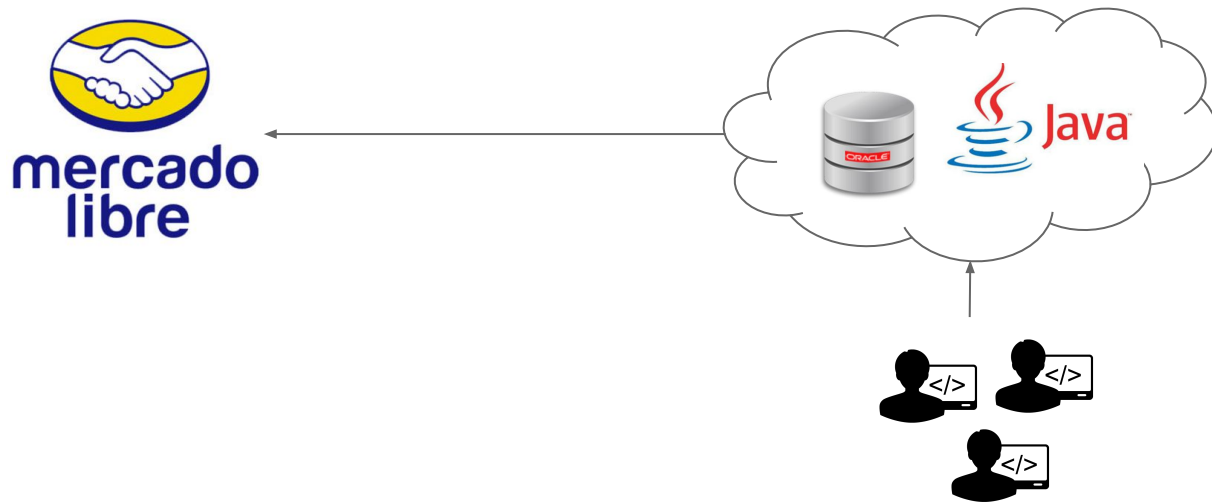
**mercado
shops**



**mercado
socios**

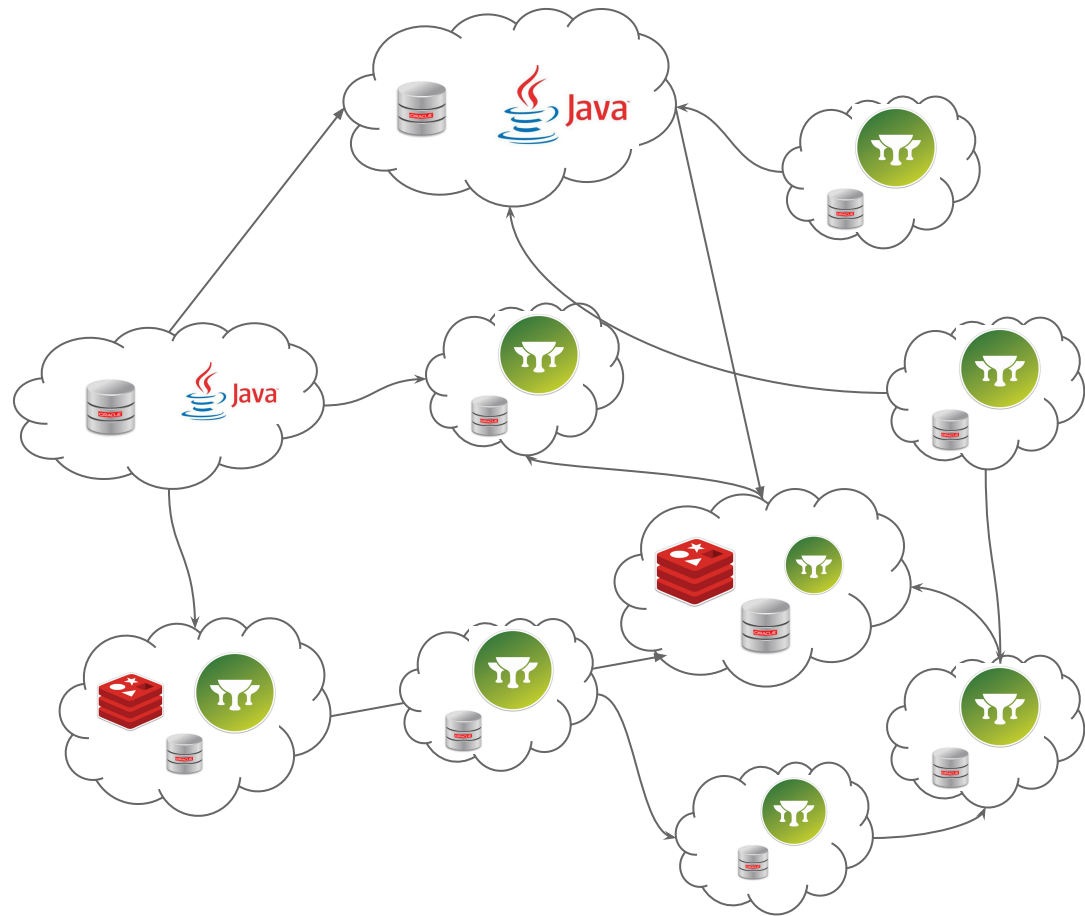


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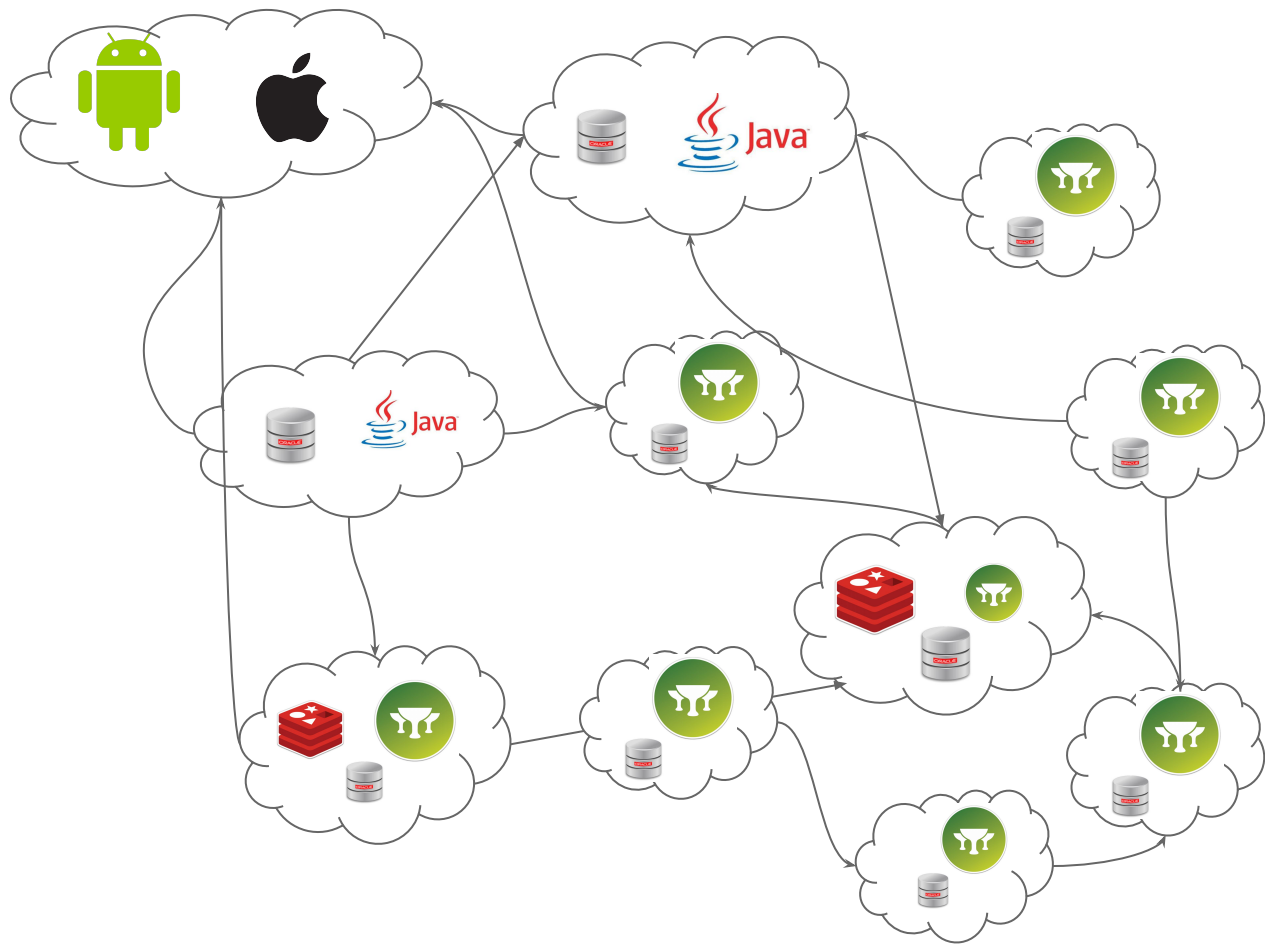


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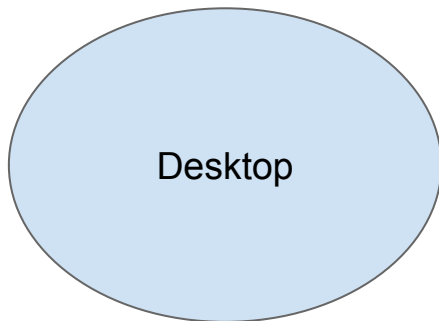


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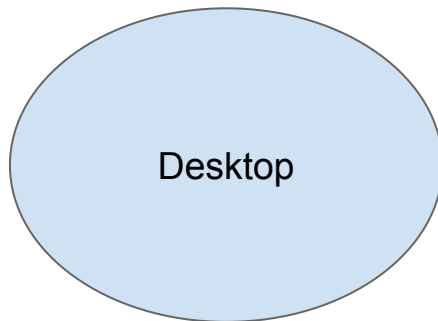




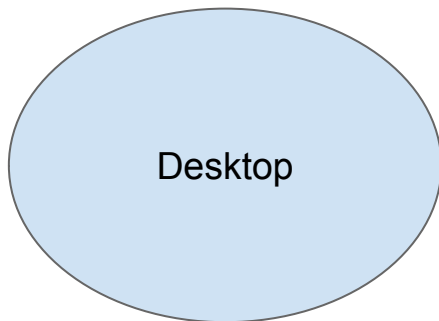
Home Team



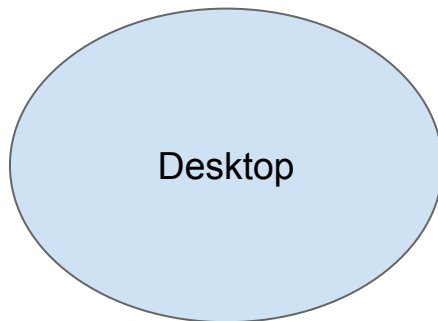
Search Team



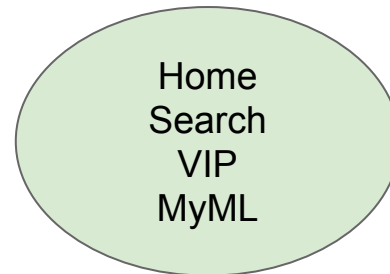
VIP Team



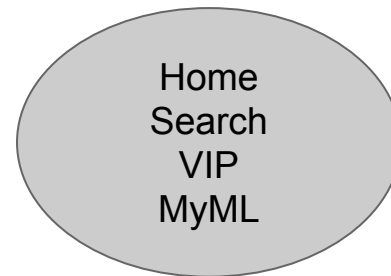
MyML Team



Android Team

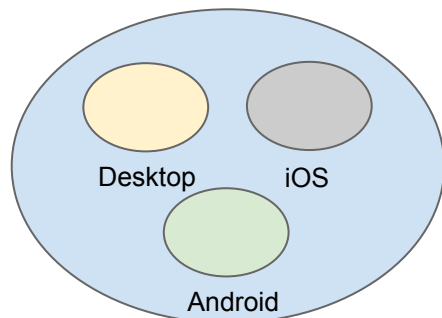


iOS Team

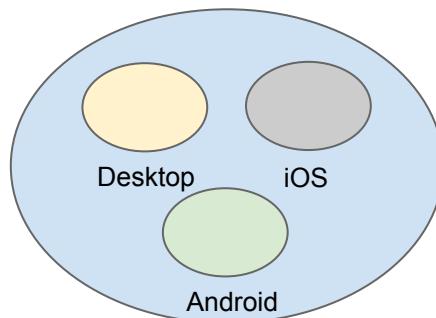




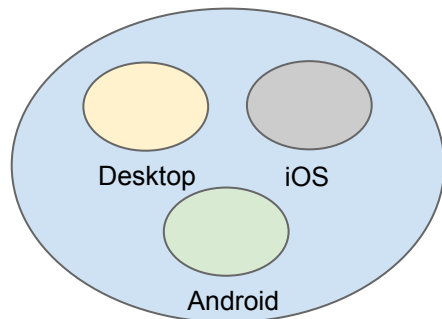
Home Team



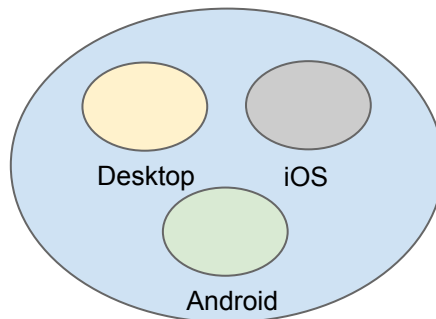
Search Team



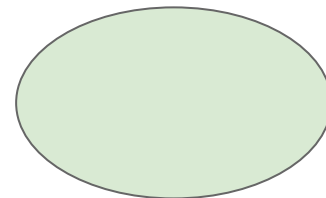
VIP Team



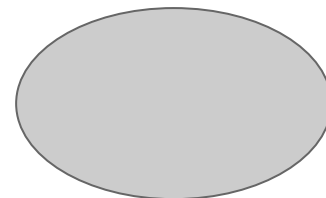
MyML Team



Android Architecture Team



iOS Architecture Team



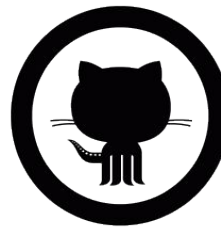


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Scaling Mobile Code

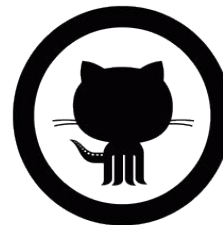


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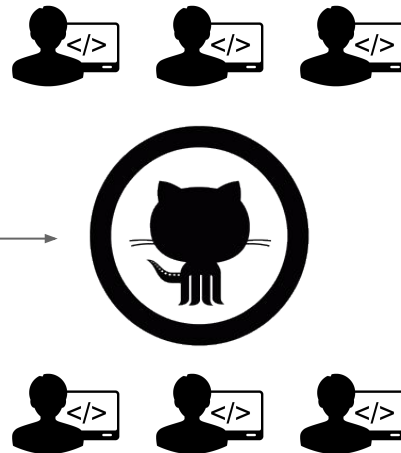
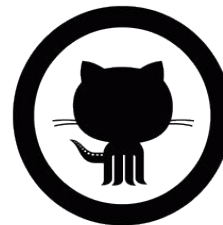


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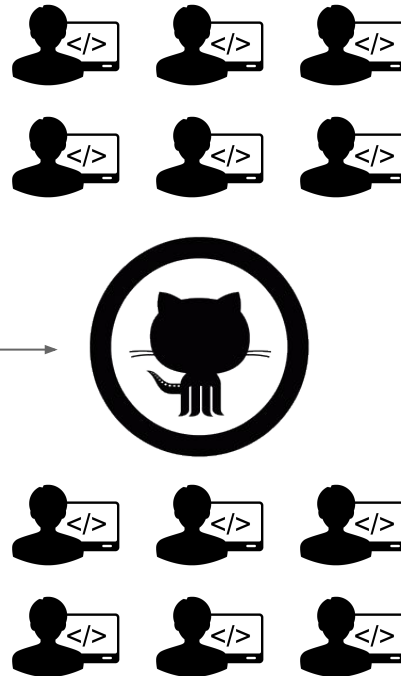
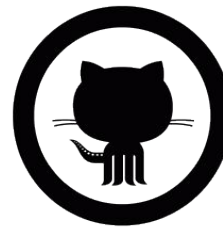


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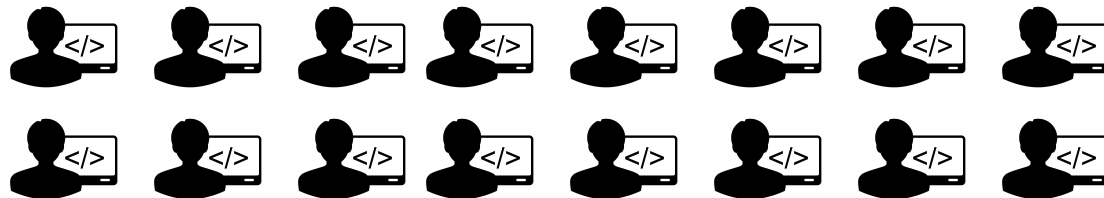
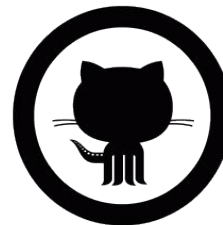
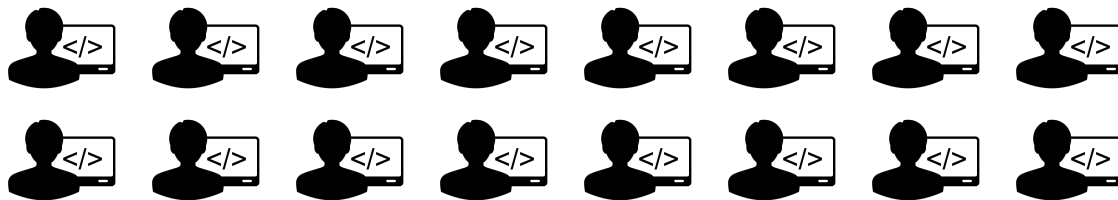


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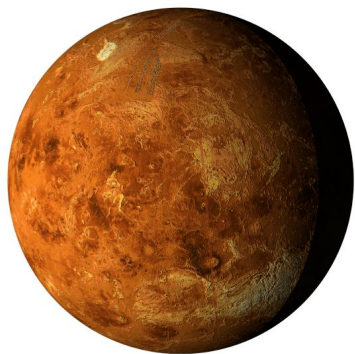


Status

- Código acoplado.
- Problemas de merge y rebase constante.
- Testeo y regresión manual.
- Subidas manuales.



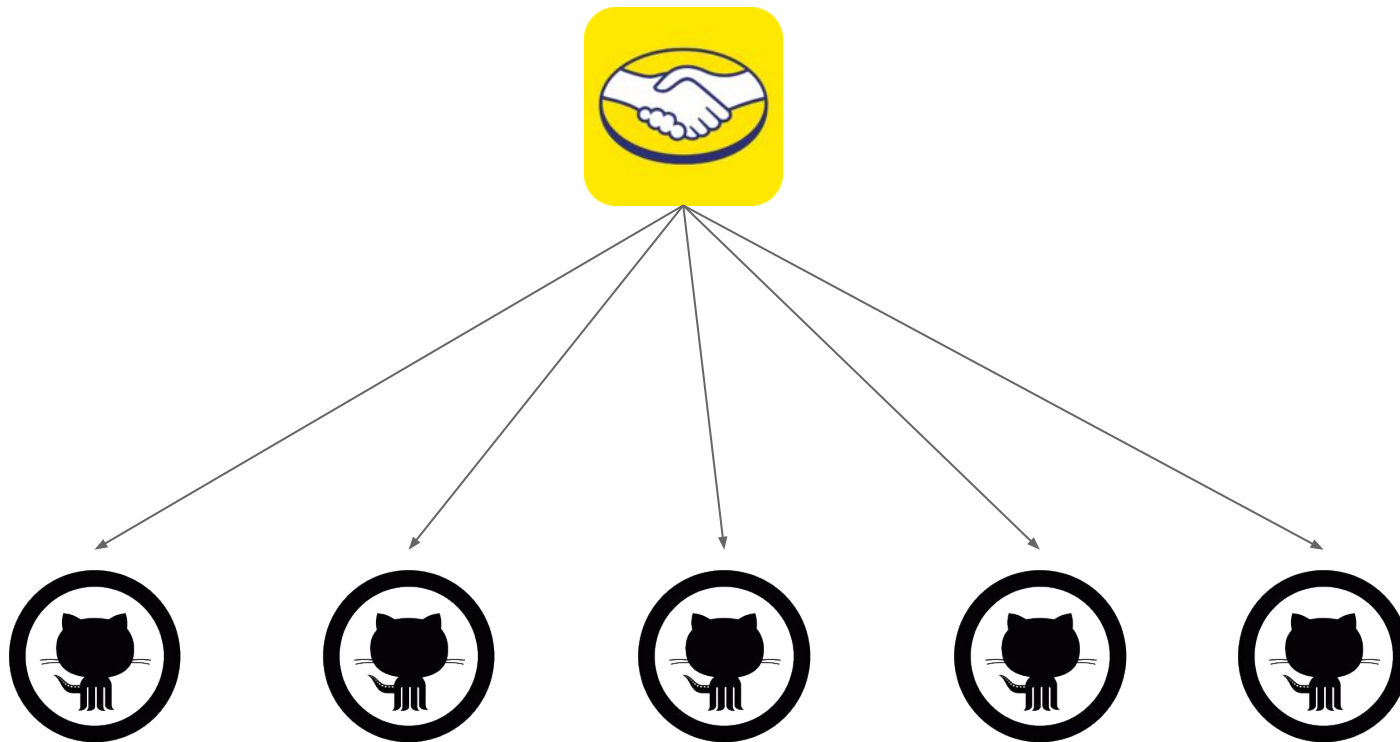
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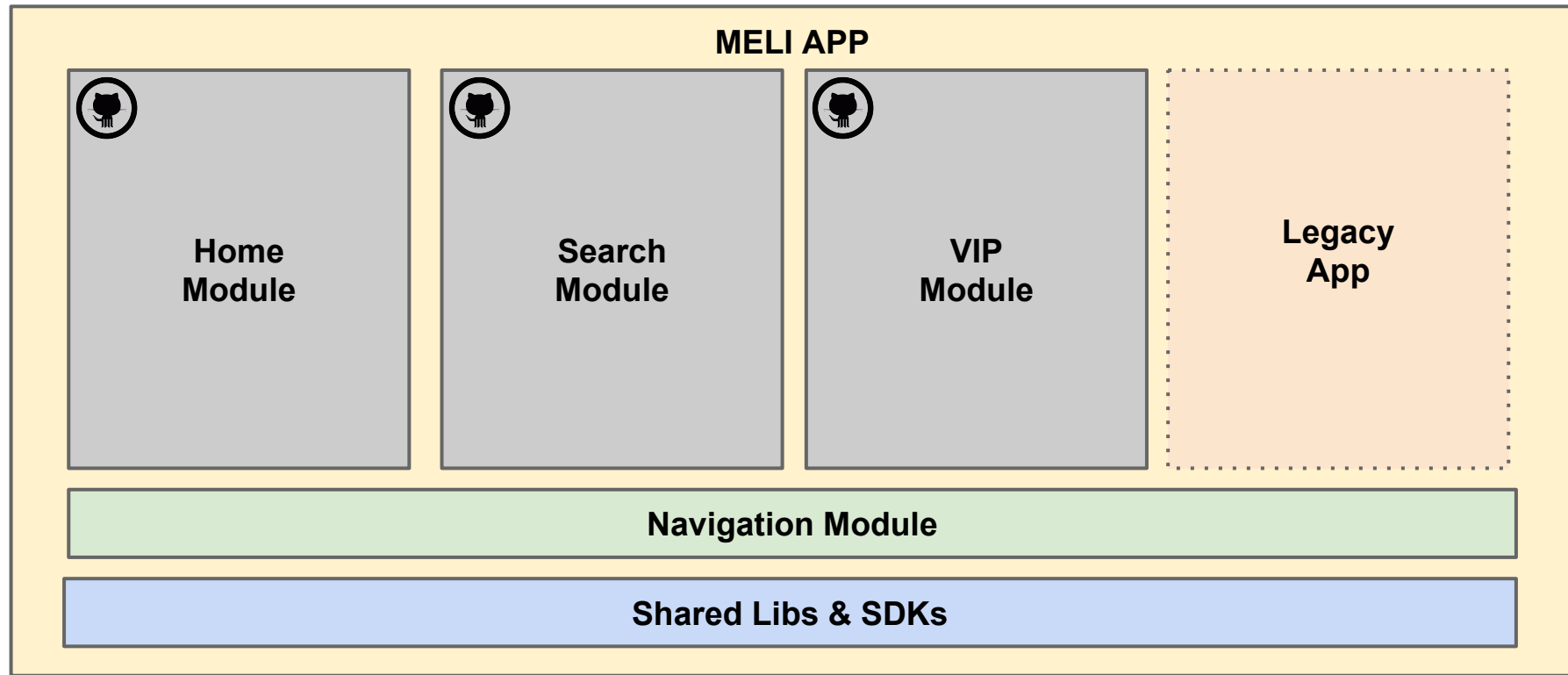
Componentización





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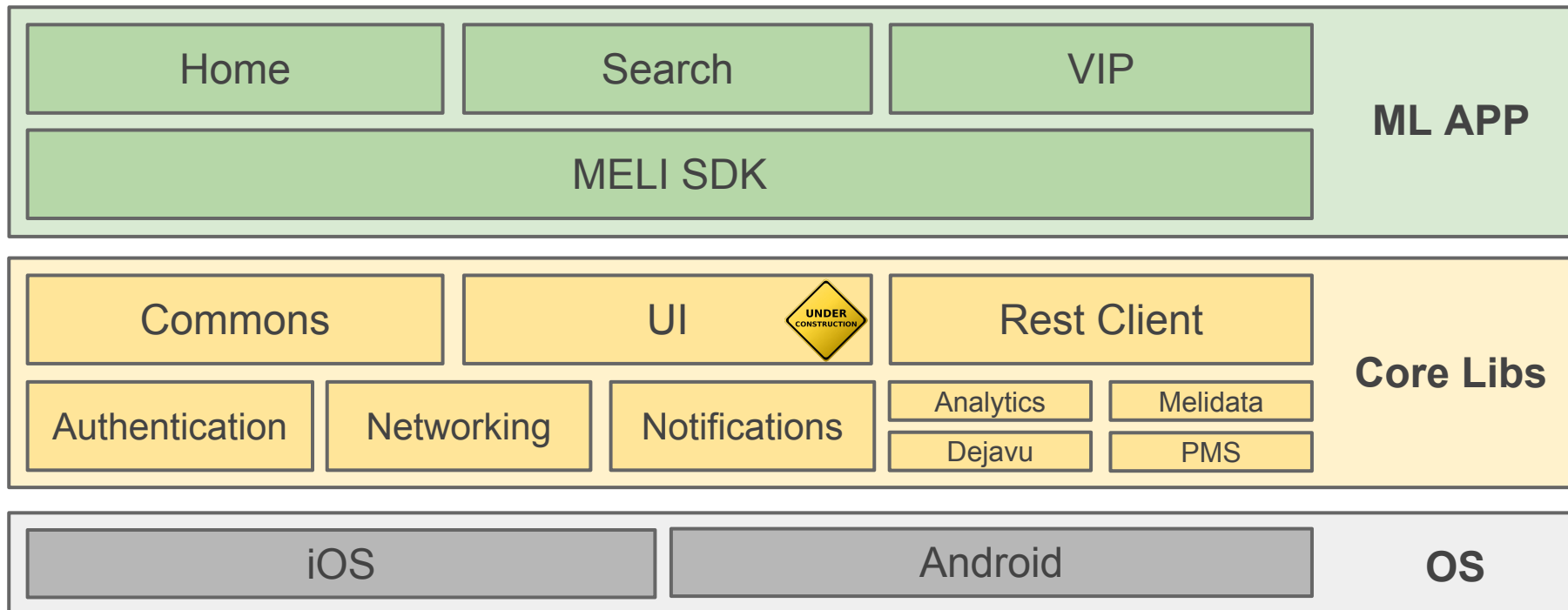
¿Cómo lo dividimos?





Características

- Cada módulo es un repositorio.
- Los repositorios de FrontEnds se construyen con el OS y nuestro MELI SDK (conjunto de Librerías).
- Cada repositorio es una aplicación que funciona por sí sola (TestApp).





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¿Cómo nos comunicamos entre FrontEnds?



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Navegación

- Los módulos **no** se conocen y se navegan por URLs predefinidas.
- 100% desacoplado.
- Cada módulo pasa a ser “Deep Link” Ready.

```
Intent intent = new Intent();  
intent.setData(Uri.parse("someSchema://items/$ITEM_ID"));  
startActivity(intent);
```



Navegación

- Pasaje de parámetros.
- Contra: Parseo del query string en cada FrontEnd.

```
"mySchema://search?query=Samsung_S7_Edge&priceMin=6500"...
```

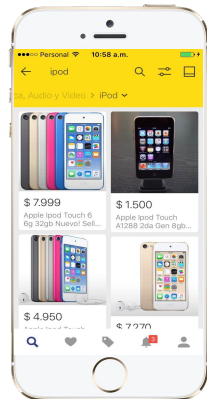
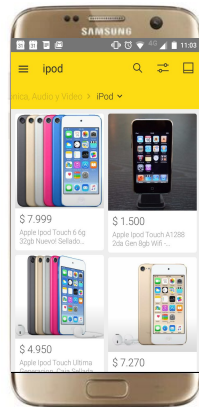


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Wrapper 2.0



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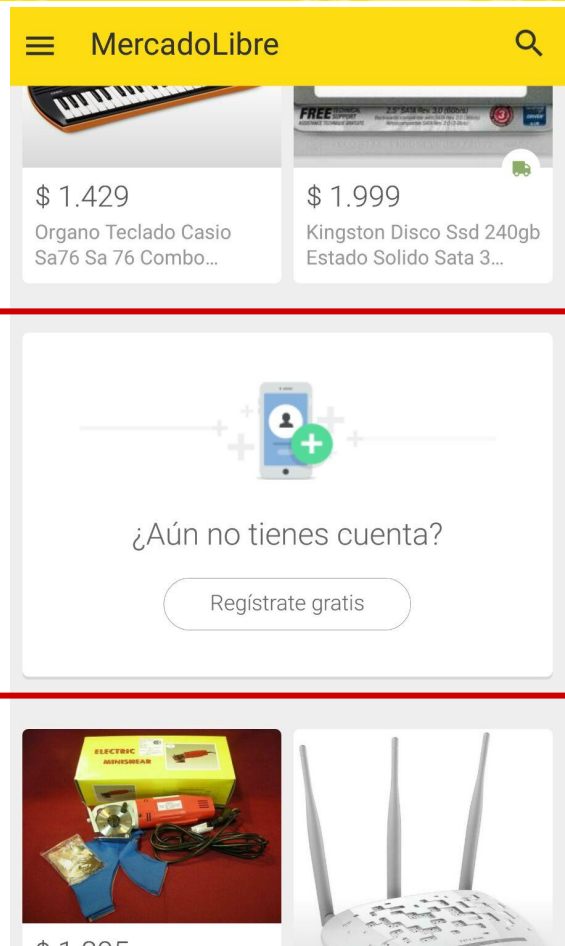


**Mobile
Middleware
(Wrapper)**

**MELI
API**



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```
{
  id: "sign_up",
  title: "¿Aún no tienes cuenta?",
  button:
  {
    text: "Regístrate gratis",
    text_color: "#666666",
    background_color: "#ffffff"
  },
  action: "mySchema://register",
  image: "http://static.ml.com/2b7c0ecb042a5.png",
  background_color: "#ffffff"
}
```

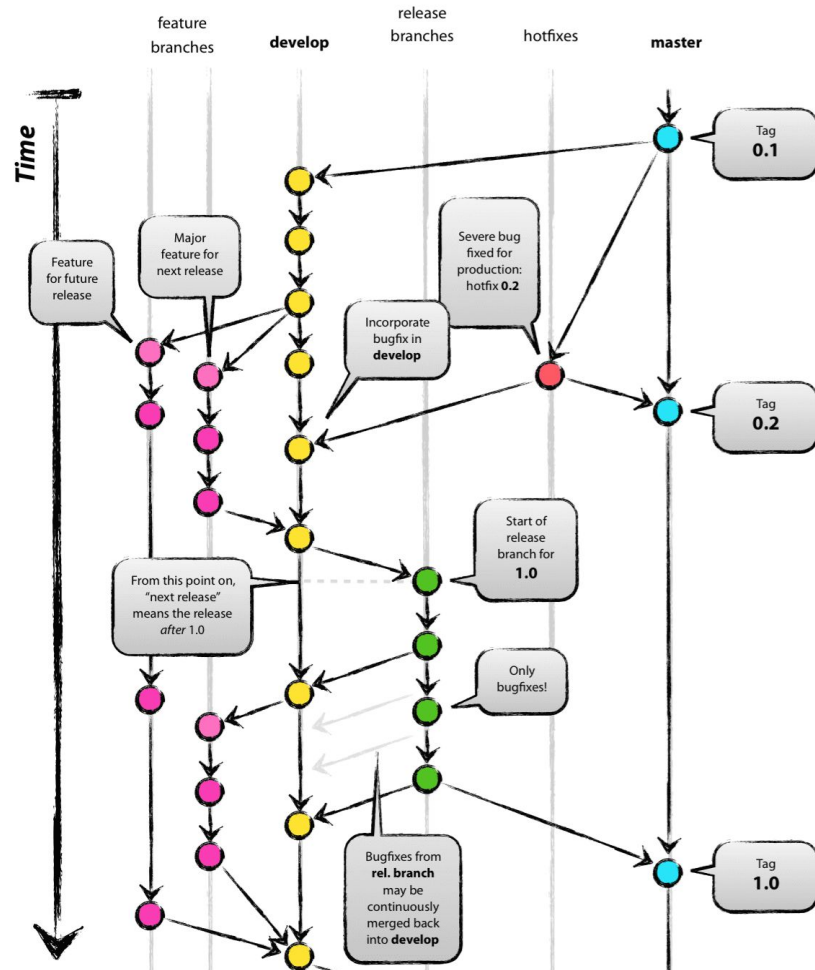


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¿Cómo mejoramos la calidad?

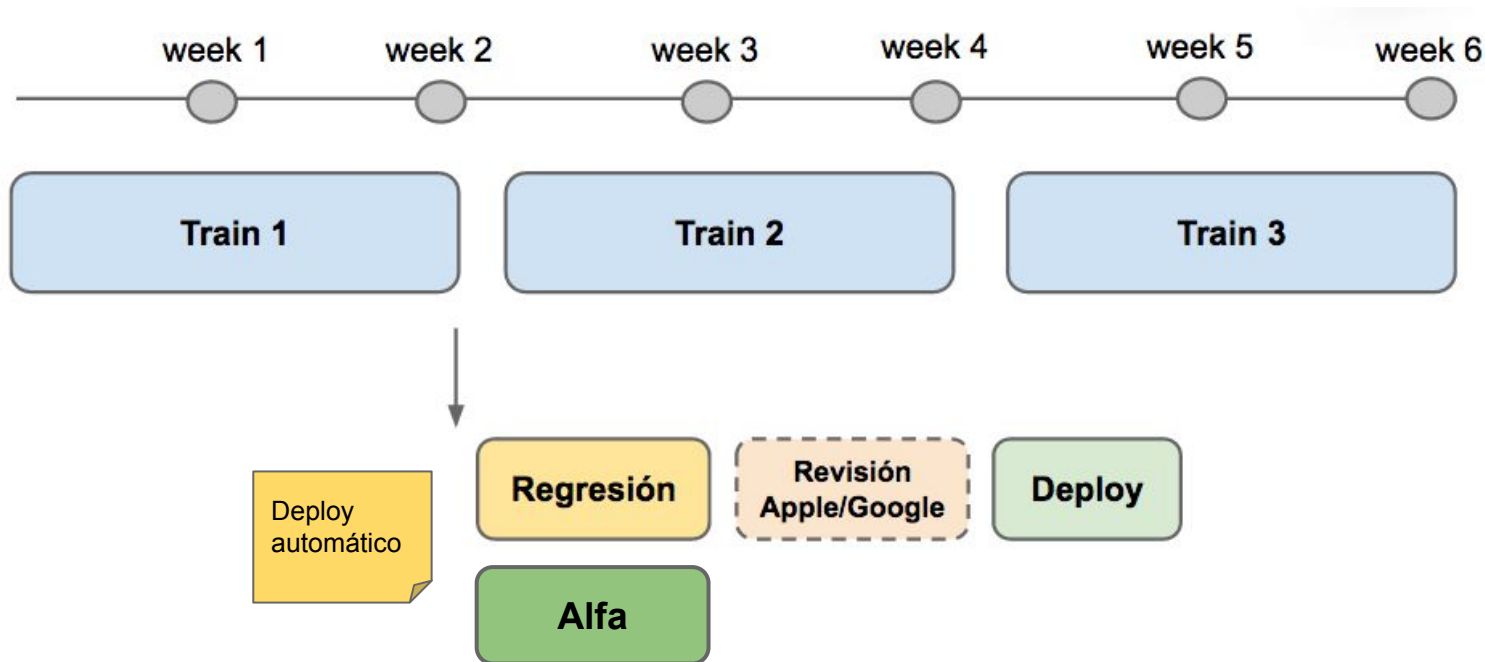


A Successful Git Branching Model





Agile Release Trains





Agile Release Trains

- El RM es encargado de gestionar un release...
 - Definido por un Milestone en Github a cada 2 semanas.
 - El RM genera un branch release con todos los PR.
 - Se crea el changelog en base a los PR del Milestone
 - Se genera el apk para el Milestone.
- Luego del cierre, se corre la regresión y en caso de no haber nuevos issues \Rightarrow rollout progresivo.



Testing Automatizado

- Testing de UI e unitario ejecutado a mano en la máquina del Developer.
- Tests inestables en los que no podíamos confiar.
- Cada departamento debía poder agregar tests a sus funcionalidades, lo cual hacía escalar mucho la cantidad de tests.
- Para escalar se debe automatizar



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Testing Automatizado

JUnit



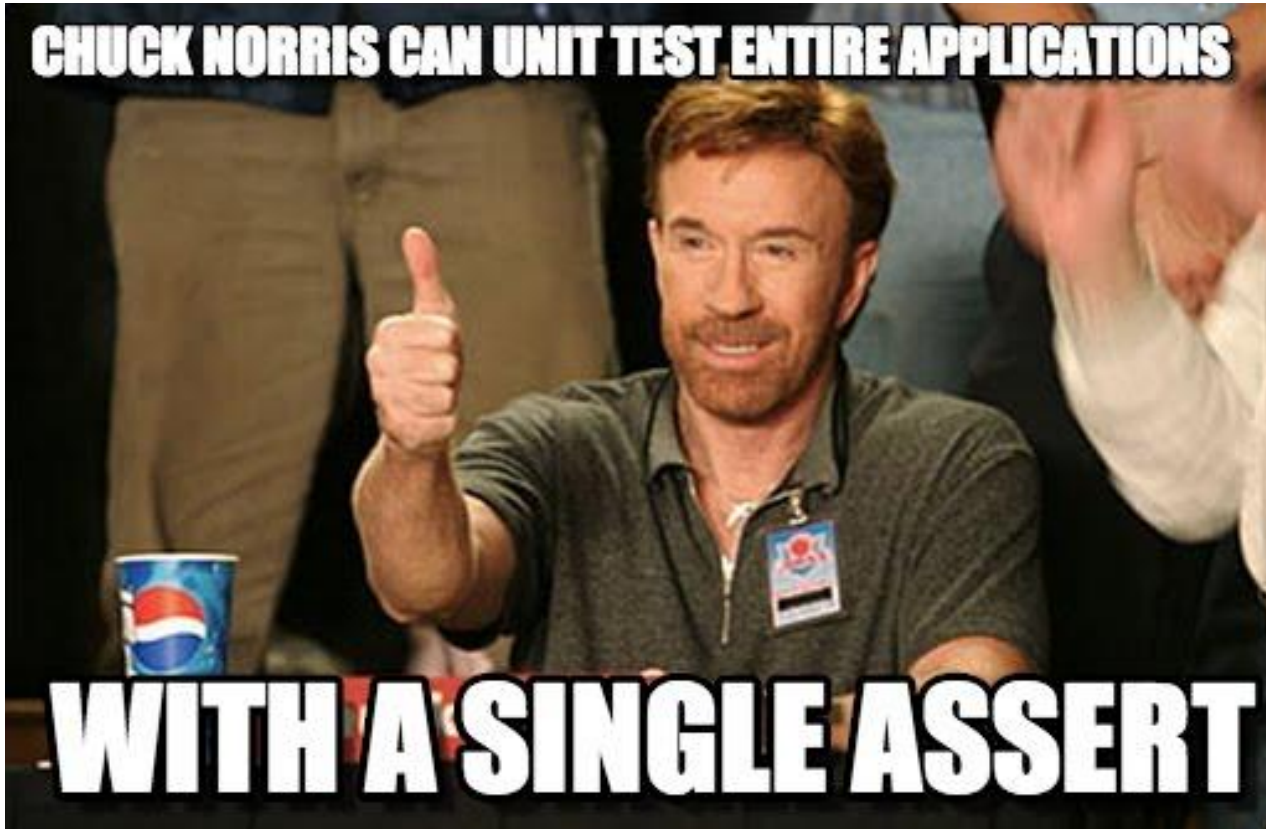
kif-framework / KIF

Keep It Functional - An iOS Functional Testing Framework



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Testing Automatizado (2)





Continuous Integration (CI)





test-travis-oom use JDK switcher

Marcos Barreto authored and committed


1840 failed

Commit bf310c3









Compare 479bacd..bf310c3

ran for 3 min 38 sec

14 days ago



Build Jobs

| | | | | |
|---|----------|---|--|--|
|  | # 1840.1 |  </> JDK: oraclejdk7 |  TEST_SUITE=instrumentation |  1 min 47 sec |
|  | # 1840.2 |  </> JDK: oraclejdk7 |  TEST_SUITE=unit |  1 min 51 sec |



Continuous Integration (CI)



Pull Request #1704 Upgrade SDK library to latest release 2.7.0



Upgrade SDK library to latest release 2.7.0



Nahuel Barrios authored and committed

1993 passed

Commit 4d06913

#1704: Upgrade SDK library to latest

ran for 41 min 26 sec

about 5 hours ago



Build Jobs



1993.1



</> JDK: oraclejdk7



TEST_SUITE=instrumentation



21 min 17 sec



1993.2



</> JDK: oraclejdk7



TEST_SUITE=unit



20 min 9 sec



Continuous Integration (CI)

| <input type="checkbox"/> 6 Open <input checked="" type="checkbox"/> 1,001 Closed | | Author ▾ | Labels ▾ | Milestones ▾ | Assignee ▾ | Sort ▾ |
|--|--|----------|----------|--------------|------------|--------|
| <input type="checkbox"/> | Change how callbacks are managed in the notification center. ✓ | | | | | 1 |
| | #1701 opened 10 hours ago by marbarfa MercadoLibre 5.5.0 13 of 14 <div></div> | | | | | |
| <input type="checkbox"/> | Fix crash OCO cuando no se selecciona opciones con ME ✓ | | | | | 3 |
| | #1699 opened 11 hours ago by matiasdelbel MercadoLibre 5.5.0 6 of 14 <div></div> | | | | | |
| <input type="checkbox"/> | [!merge] Feature/new wrapper changes ✓ | | | | | 2 |
| | #1695 opened a day ago by giuillera | | | | | |
| <input type="checkbox"/> | Feature/Add MercadoPago section ✗ | | | | | 7 |
| | #1694 opened 2 days ago by facudev | | | | | |
| <input type="checkbox"/> | Invert condition to avoid NPE on CXCongratsFragment ✓ | | | | | 4 |
| | #1689 opened 2 days ago by martofeld MercadoLibre 5.5.0 14 of 14 <div></div> | | | | | |
| <input type="checkbox"/> | Nuevo inicio de reclamo para Flujo PDD ✓ | | | | | 2 |
| | #1685 opened 5 days ago by gaboblanch 0 of 14 <div></div> | | | | | |

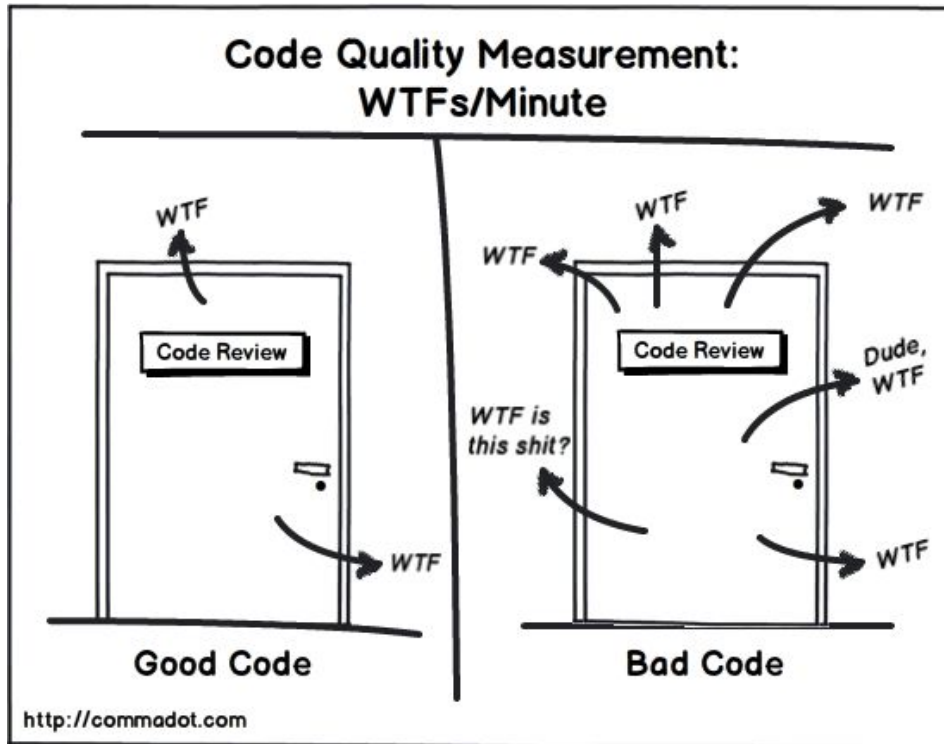


Continuous Deployment (CD)

- La generación del APK se genera en Travis → siempre se genera en el mismo entorno.
- Cuando el último commit tiene **[ci deploy]** y es sobre el branch *release* o *master* → Se genera el APK, se crea el tag en Github y se crea el Changelog (en base al archivo Changelog.md)
- Si el branch es **release** el APK generado además se publica como Alfa en PlayStore.



Code Review



- Estandarizar código
- Ser más prolijos
- Compartir buenas prácticas
- Reducir bugs
- Sobre todo.. aprender a aceptar críticas constructivas :-)



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Algunos resultados inmediatos



New vip version: 1.1.2 #1408

[Edit](#)

Merged bweinberg merged 1 commit into `release-5.1` from `fix/new-vip-version` on Sep 1

Conversation **0**

Commits **1**

Files changed **1**

+1 -1

Showing **1 changed file** with **1 addition** and **1 deletion**.

[Unified](#)[Split](#)

2 gradle.properties

[View](#)

@@ -11,6 +11,6 @@ robolectricVersion = 3.0

| | | |
|----|----|--------------------------------|
| 11 | 11 | sdkVersion = 2.3.2 |
| 12 | 12 | searchVersion = 1.3.1 |
| 13 | 13 | supportLibraryVersion = 22.2.1 |
| 14 | | -vipVersion = 1.1.1 |
| | 14 | +vipVersion = 1.1.2 |
| 15 | 15 | vipIntentsVersion = 1.0.0 |
| 16 | 16 | pmsVersion = 1.1.0 |



Los crashes en Android bajaron de ~10.000/día a ~700/día...



¡ Gracias !



@marbarfa