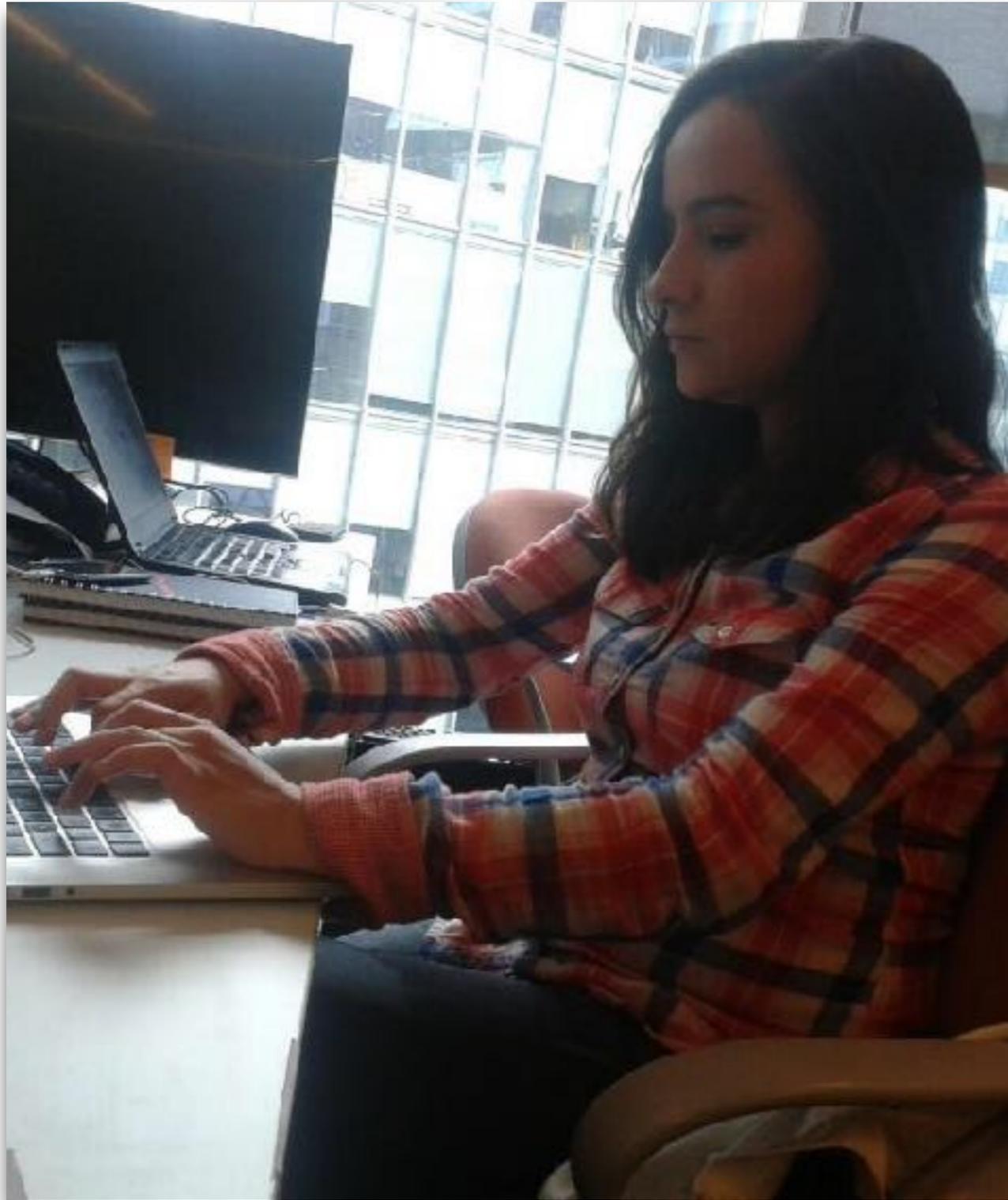


ThoughtWorks®

Quito-Ecuador

SIMULANDO PARA INTEGRAR

Un paso más hacia la Entrega Continua (CD)



Luisa Emme

Consultora y Desarrolladora de Software
Thoughtworks Ecuador

@emmeblm



ThoughtWorks®

¡Siempre estamos contratando!

Nuestra agenda

Nuestra agenda

Algunos conceptos ...

- ★ ¿Por qué probamos la integración entre servicios?
- ★ Integración continua y Entrega continua

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Érase una vez ...

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- ★ Algunos de los patrones más frecuentemente utilizados

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- ★ Para simular servicios web

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... y vivimos felices por siempre ...

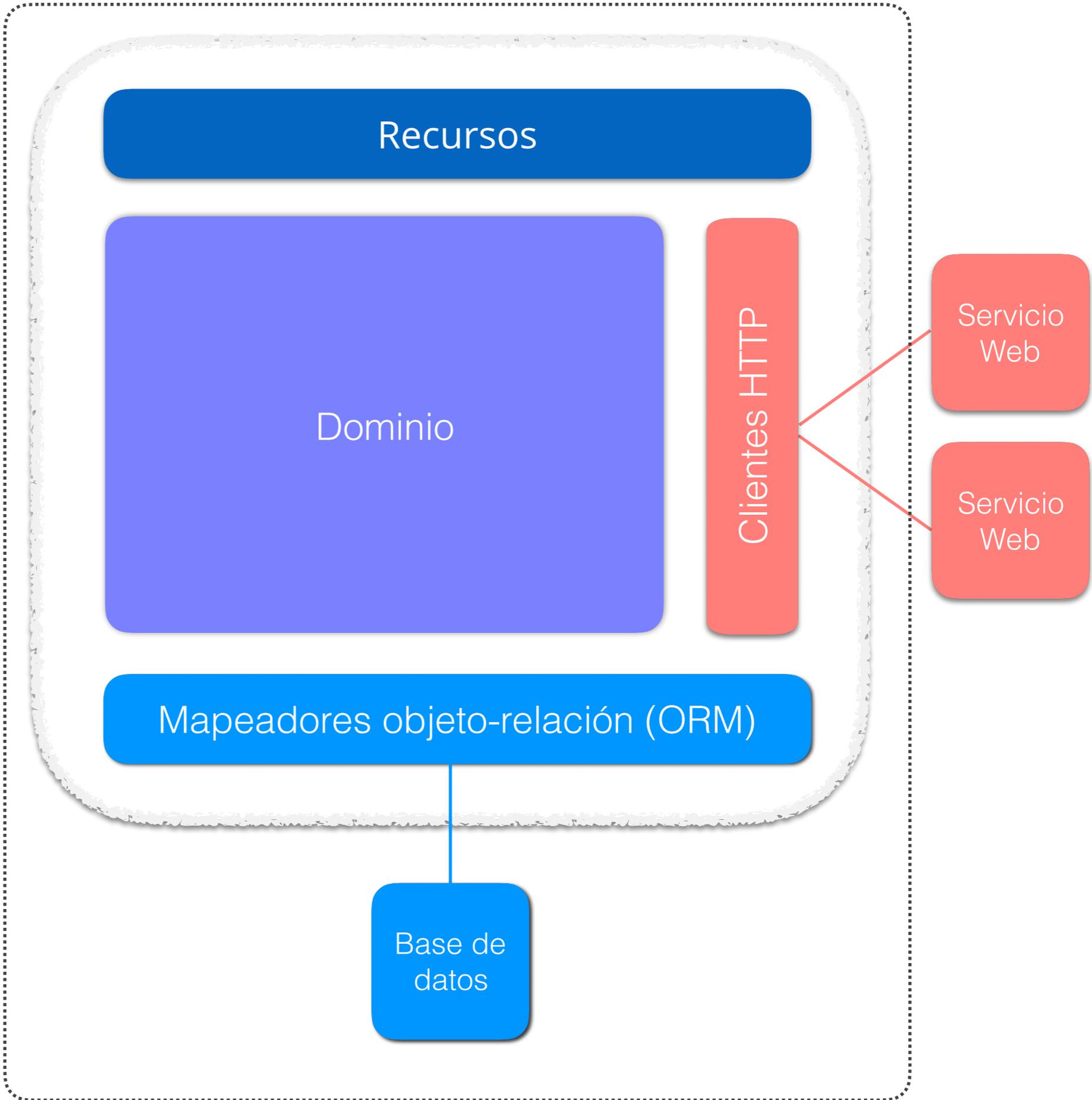
- ★ Imitadores guiados por el consumidor
- ★ Pruebas de contrato automatizadas

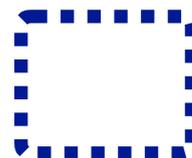
A photograph of three men in a meeting, looking at a smartphone. The man on the left is pointing at the screen. The man in the middle is looking at the phone with his hand to his chin. The man on the right is writing on a notepad. The image has a dark, sepia-toned overlay.

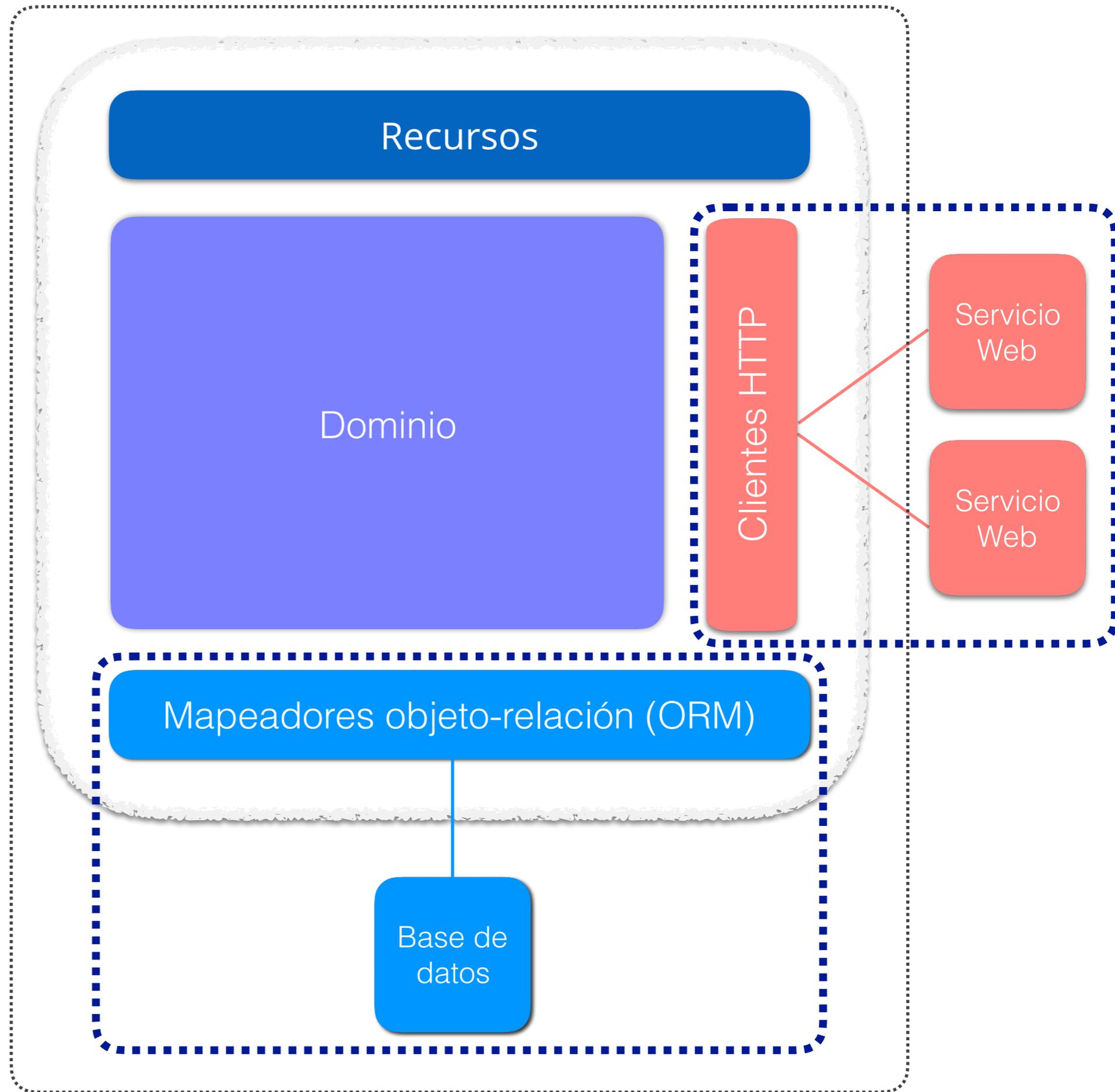
ALGUNOS CONCEPTOS

Pruebas de integración, integración continua y entrega continua

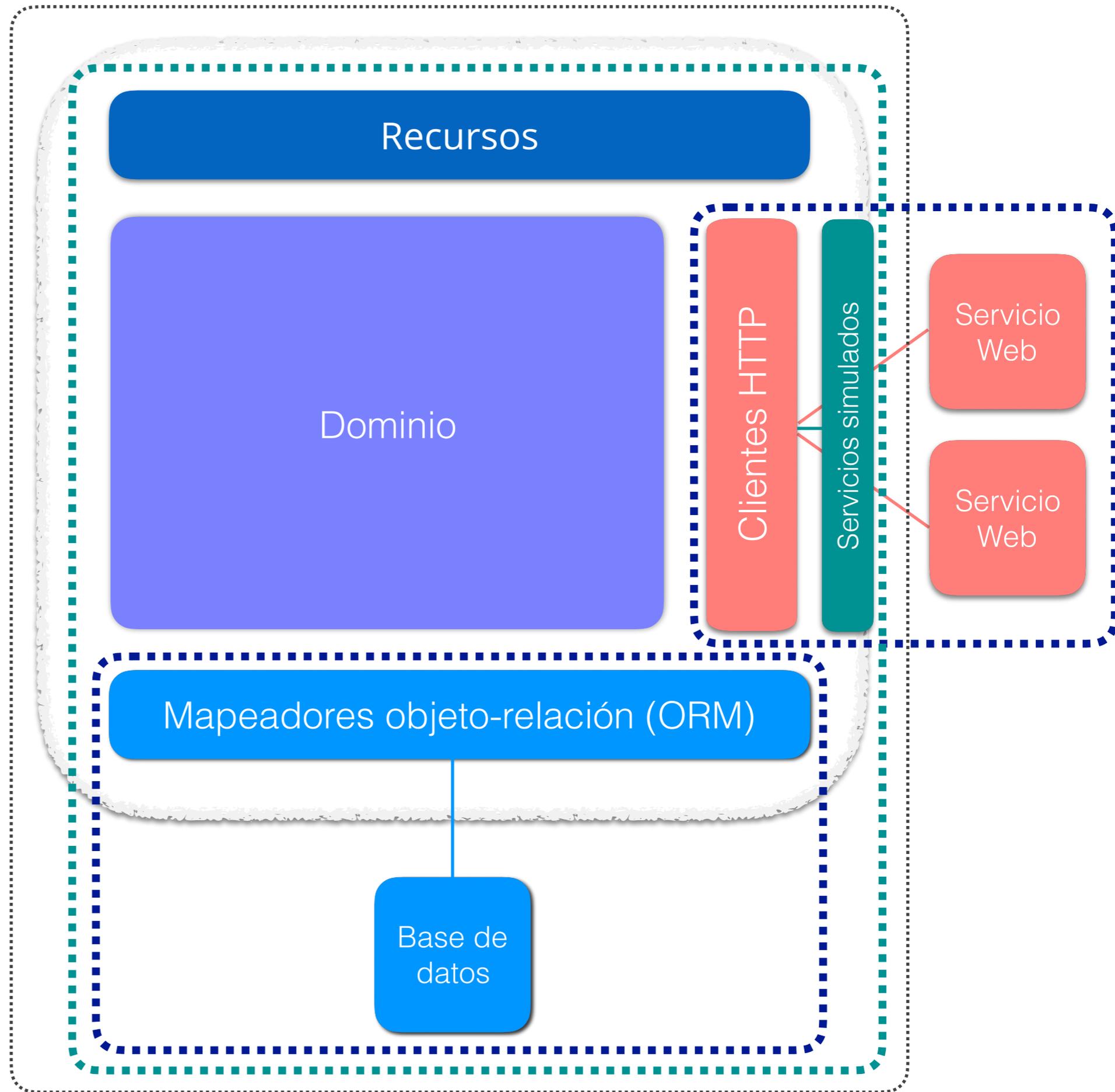
¿Por qué probamos la
integración entre
servicios?



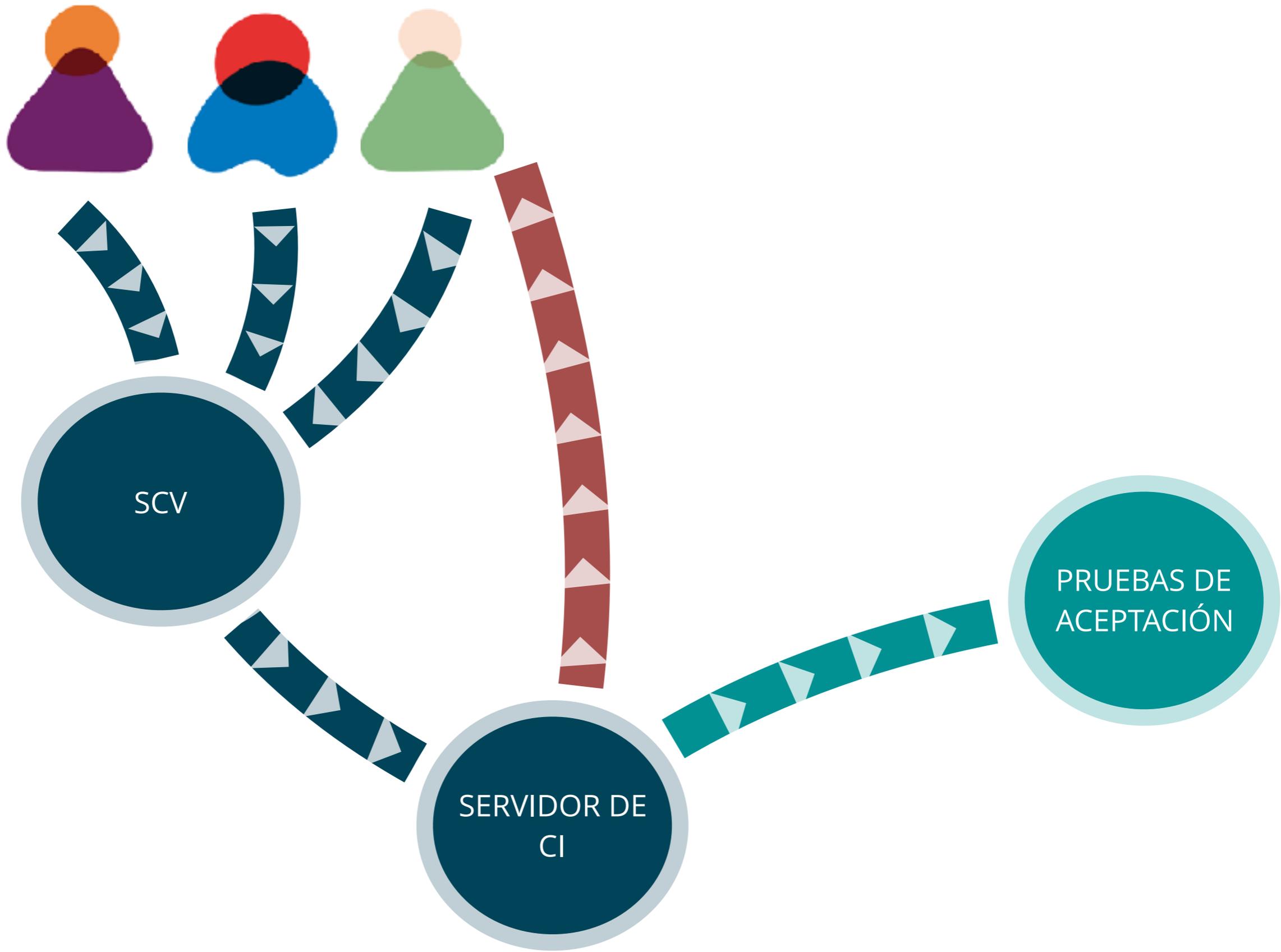
 Pruebas de Integración



-  Pruebas de Integración
-  Pruebas de integración a nivel de componentes



Integración continua



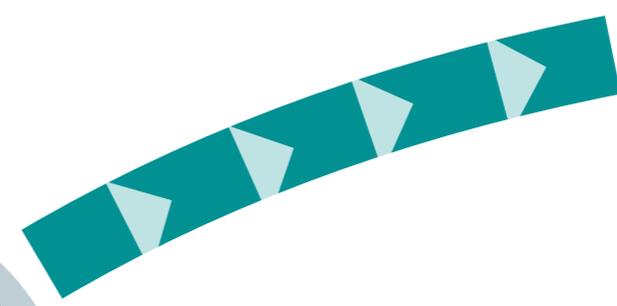
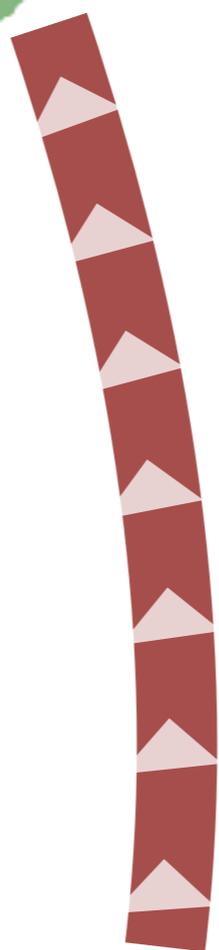
SCV

SERVIDOR DE
CI

PRUEBAS DE
ACEPTACIÓN



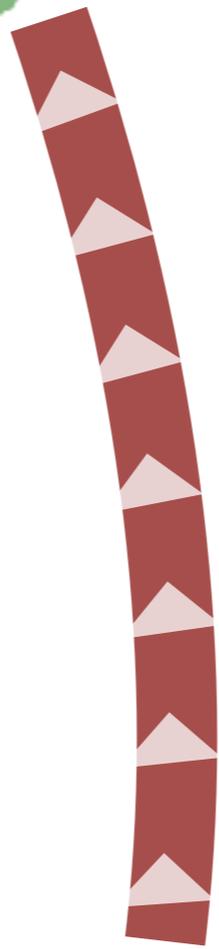
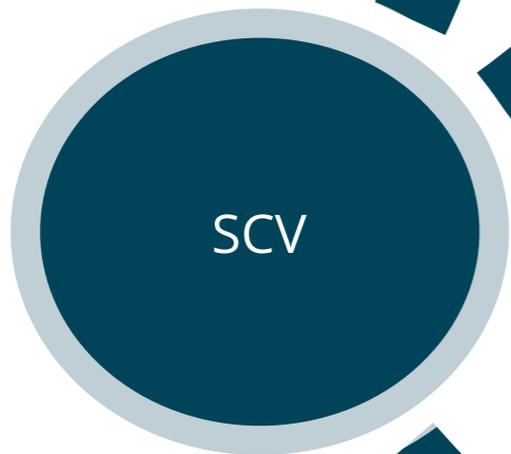
Registran su código



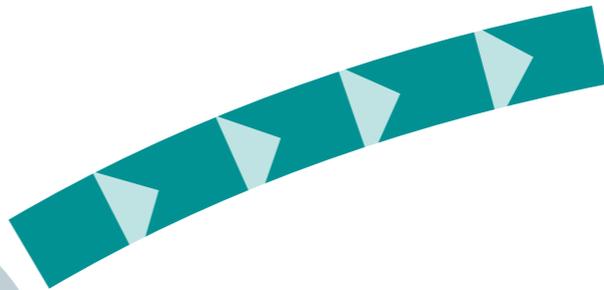
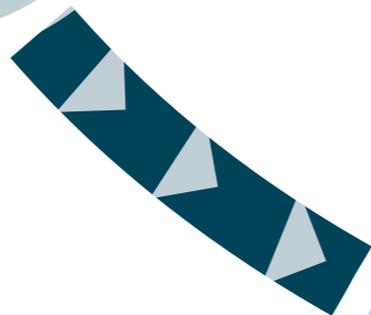


Desarrollan el código

Registran su código



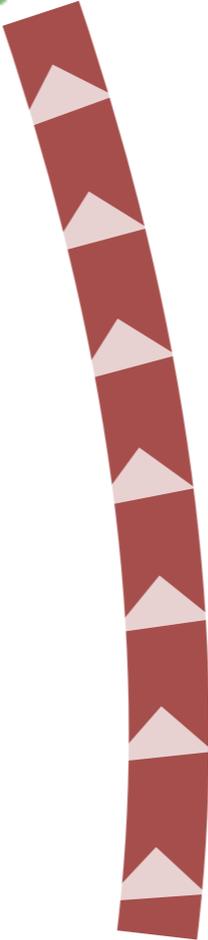
Construye el código.
Ejecuta las pruebas



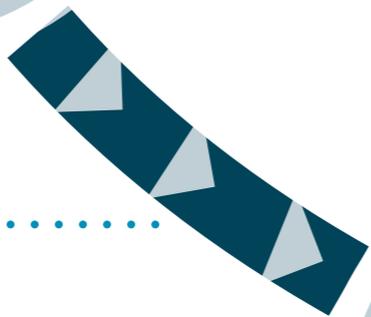


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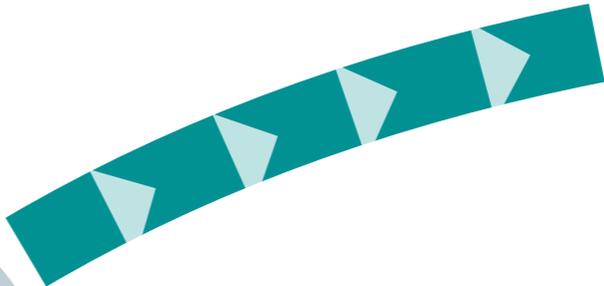
Registran su código



Detecta cambios en el código



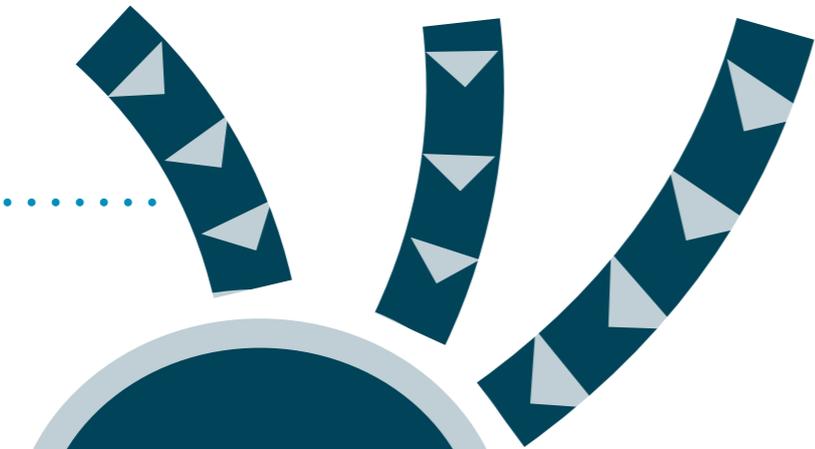
Construye el código. Ejecuta las pruebas



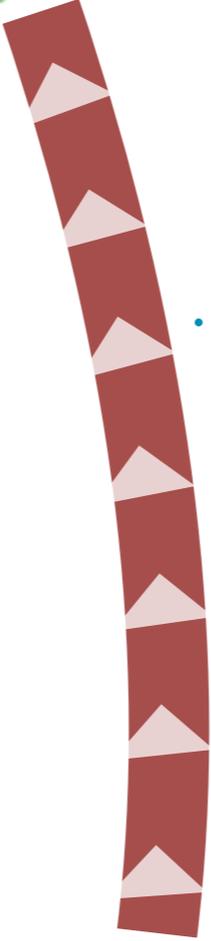


Desarrollan el código

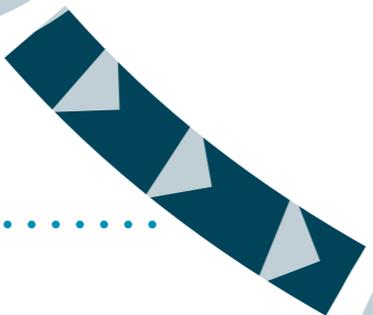
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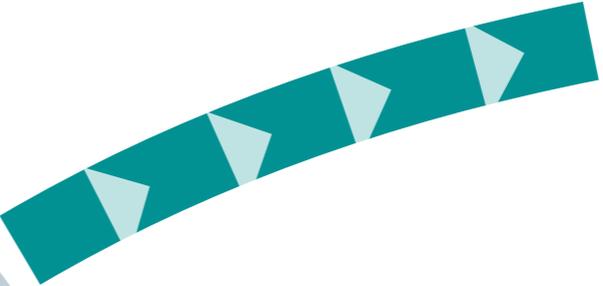
Las pruebas fallan



Detecta cambios en el código



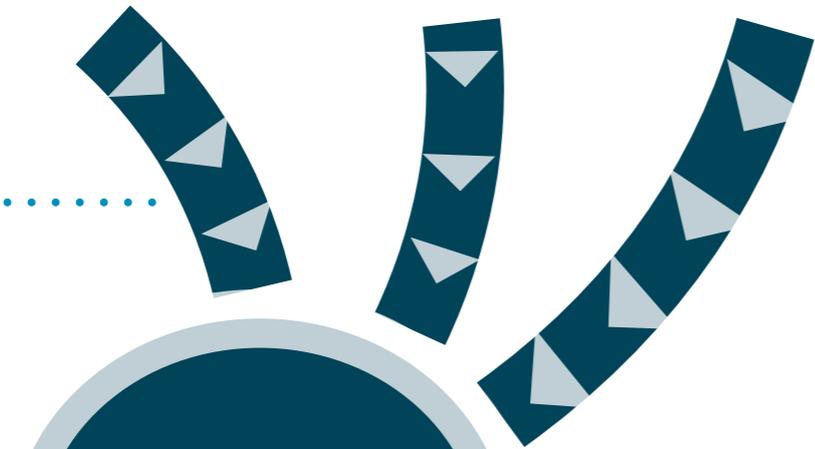
Construye el código. Ejecuta las pruebas



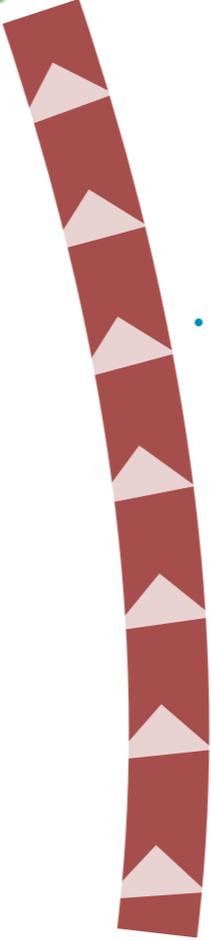


Desarrollan el código

Registran su código

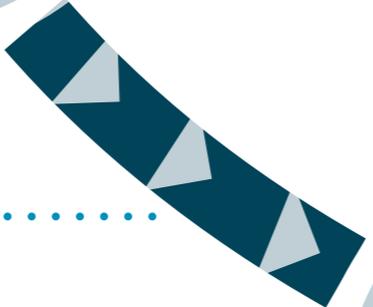


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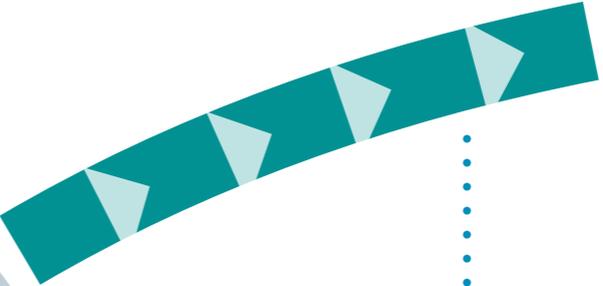


Detecta cambios en el código

Construye el código. Ejecuta las pruebas



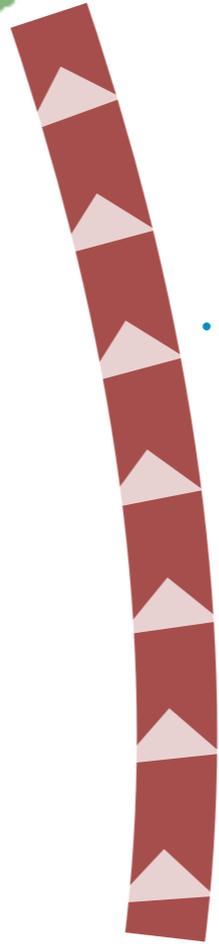
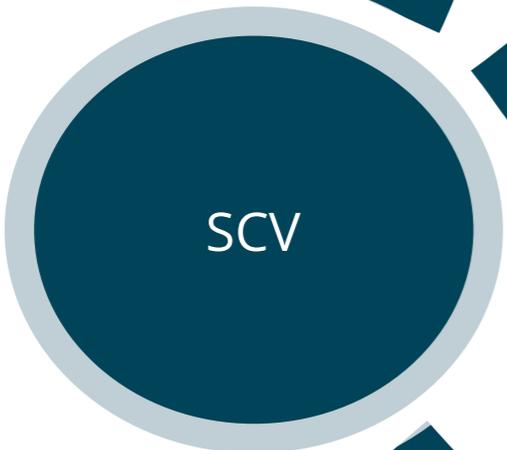
Las pruebas pasan. Despliegue a UAT





Desarrollan el código

Registran su código



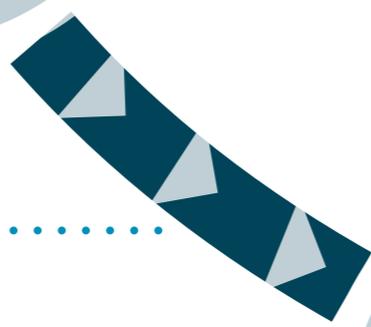
Las pruebas fallan

Cliente puede ver cambios en tiempo real

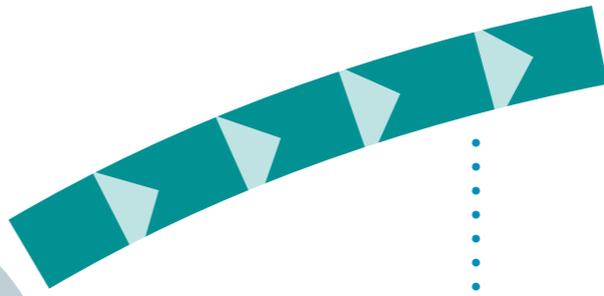


Detecta cambios en el código

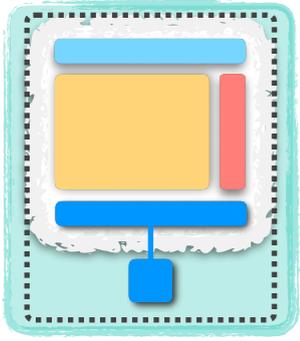
Construye el código. Ejecuta las pruebas



Las pruebas pasan. Despliegue a UAT



Entrega continua



Ambiente 1



Ambiente 2



Ambiente N



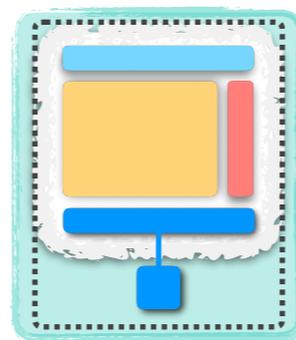
Ambiente 1



Ambiente 2



Ambiente N



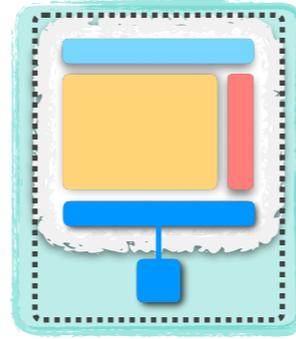
Ambiente 1



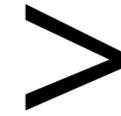
Ambiente 2



Ambiente N



Software
desplegable

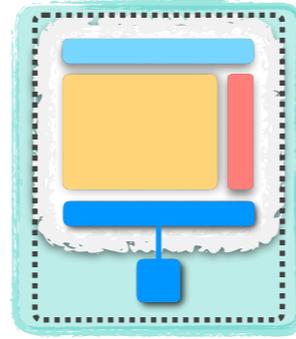


Nuevas
características

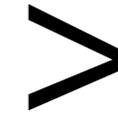
Ambiente 1

Ambiente 2

Ambiente N



Software
desplegable



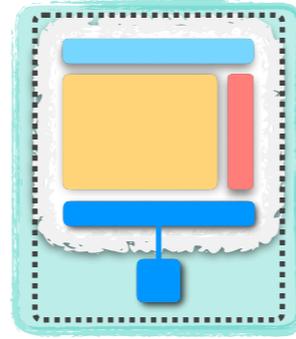
Nuevas
características



Ambiente 1

Ambiente 2

Ambiente N

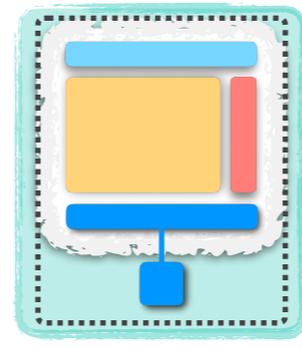


Software
desplegable

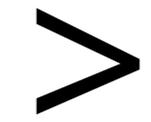


Nuevas
características

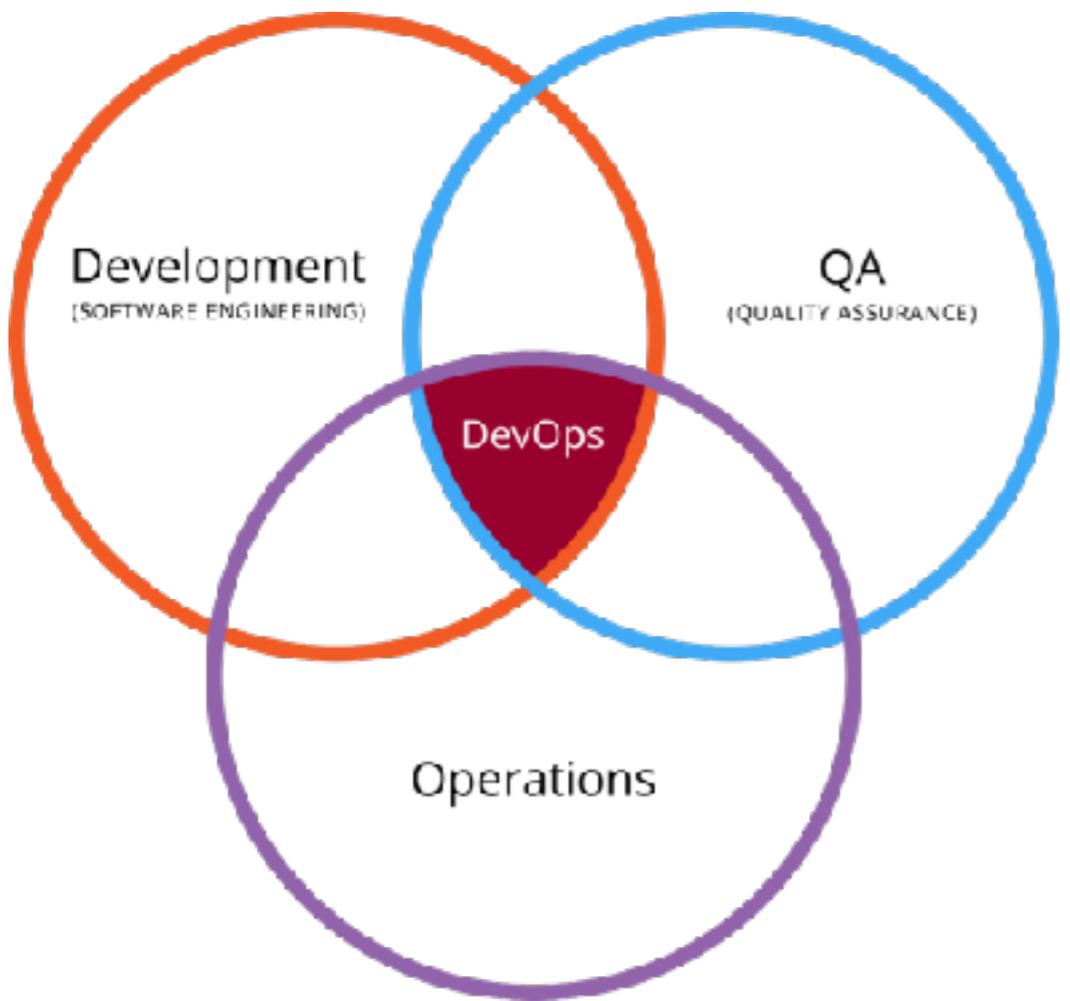


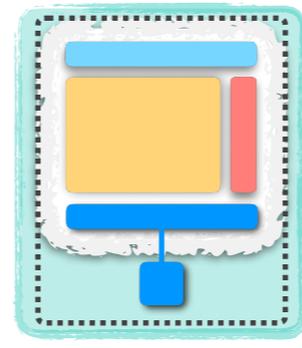


Software
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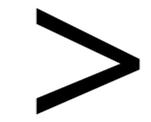


Nuevas
características

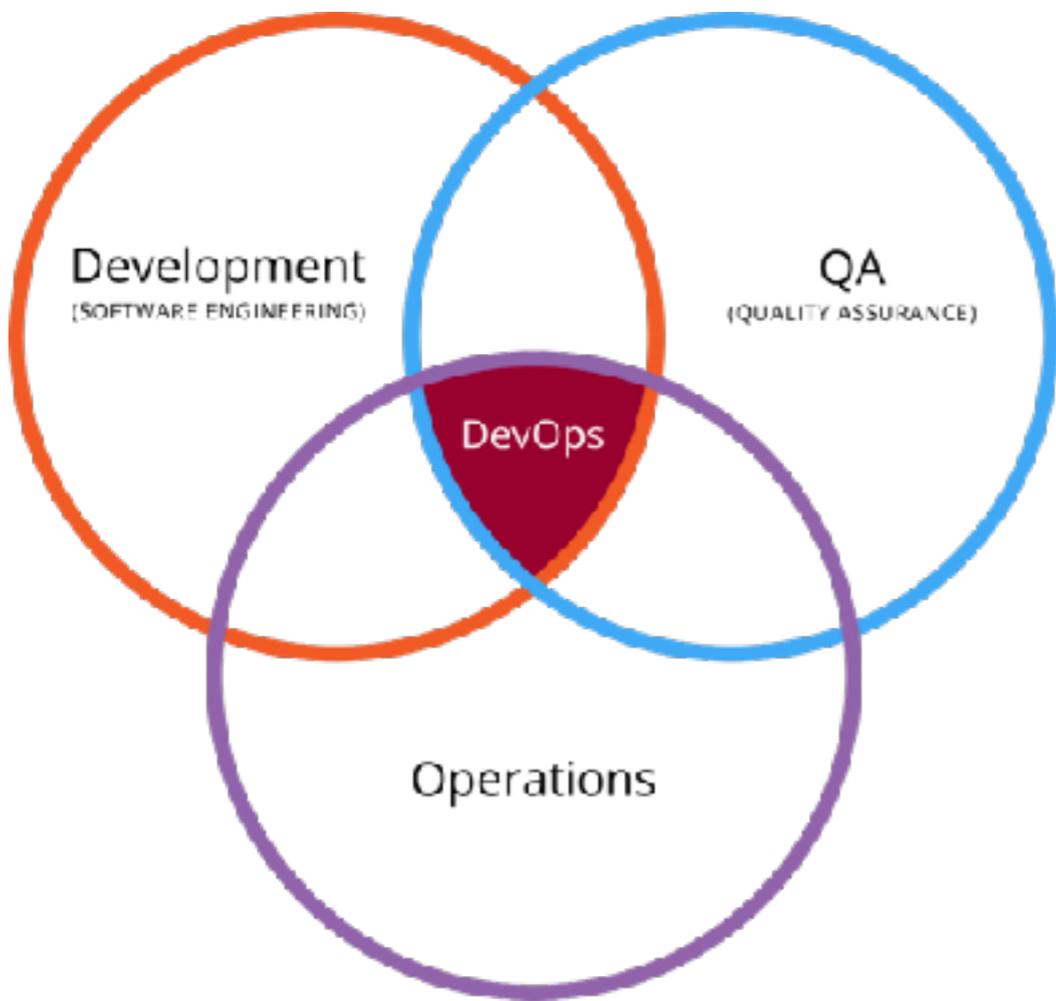




Software
desplegable

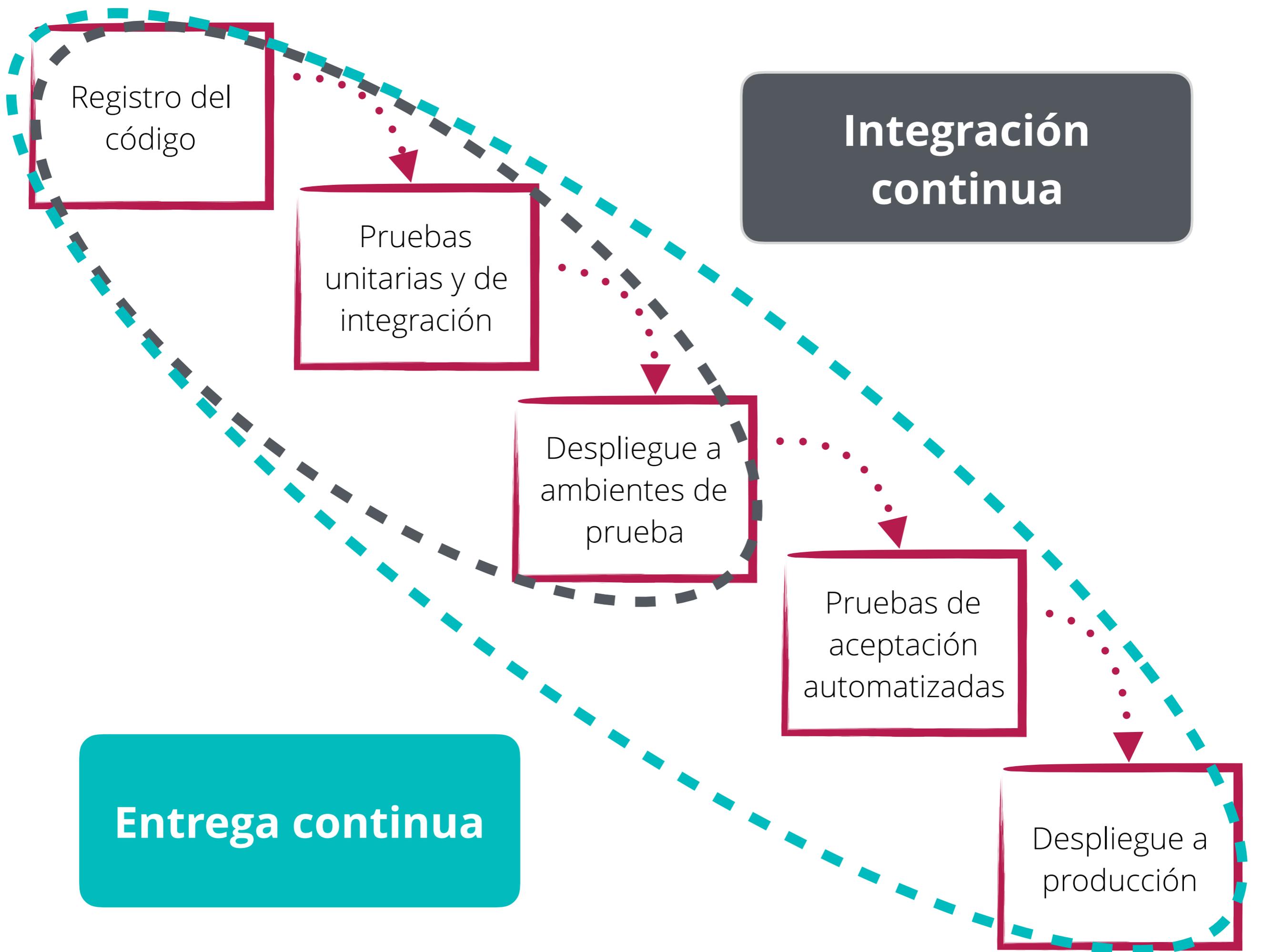


Nuevas
características



compile, unit and functional test acceptance test integration test user acceptance test performance test





Registro del código

Pruebas unitarias y de integración

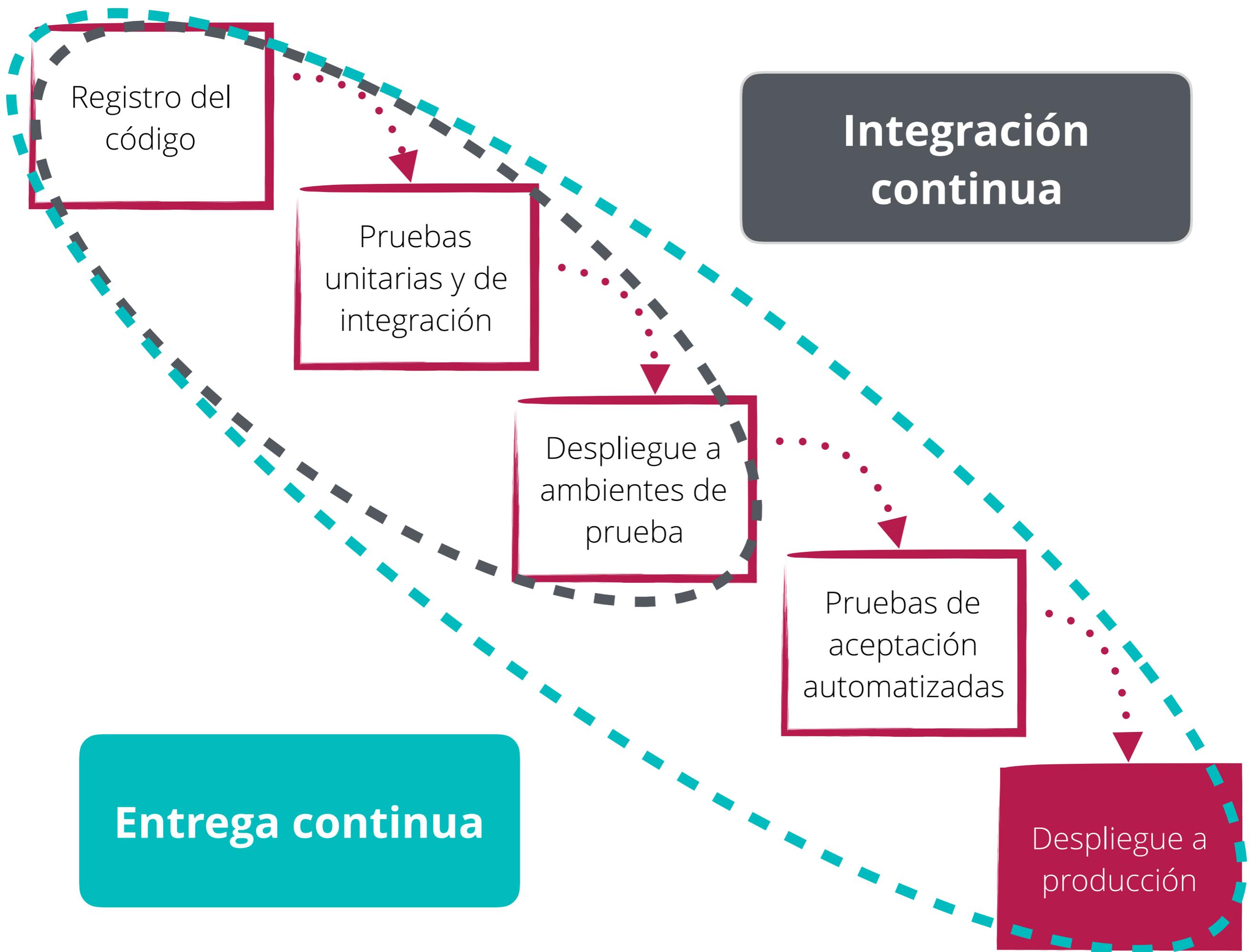
Despliegue a ambientes de prueba

Pruebas de aceptación automatizadas

Despliegue a producción

Integración continua

Entrega continua



Registro del código

Pruebas unitarias y de integración

Despliegue a ambientes de prueba

Pruebas de aceptación automatizadas

Despliegue a producción

Integración continua

Entrega continua

ÉRASE UNA VEZ ...

Una historia sobre un pipeline en rojo y un despliegue bloqueado

Recursos

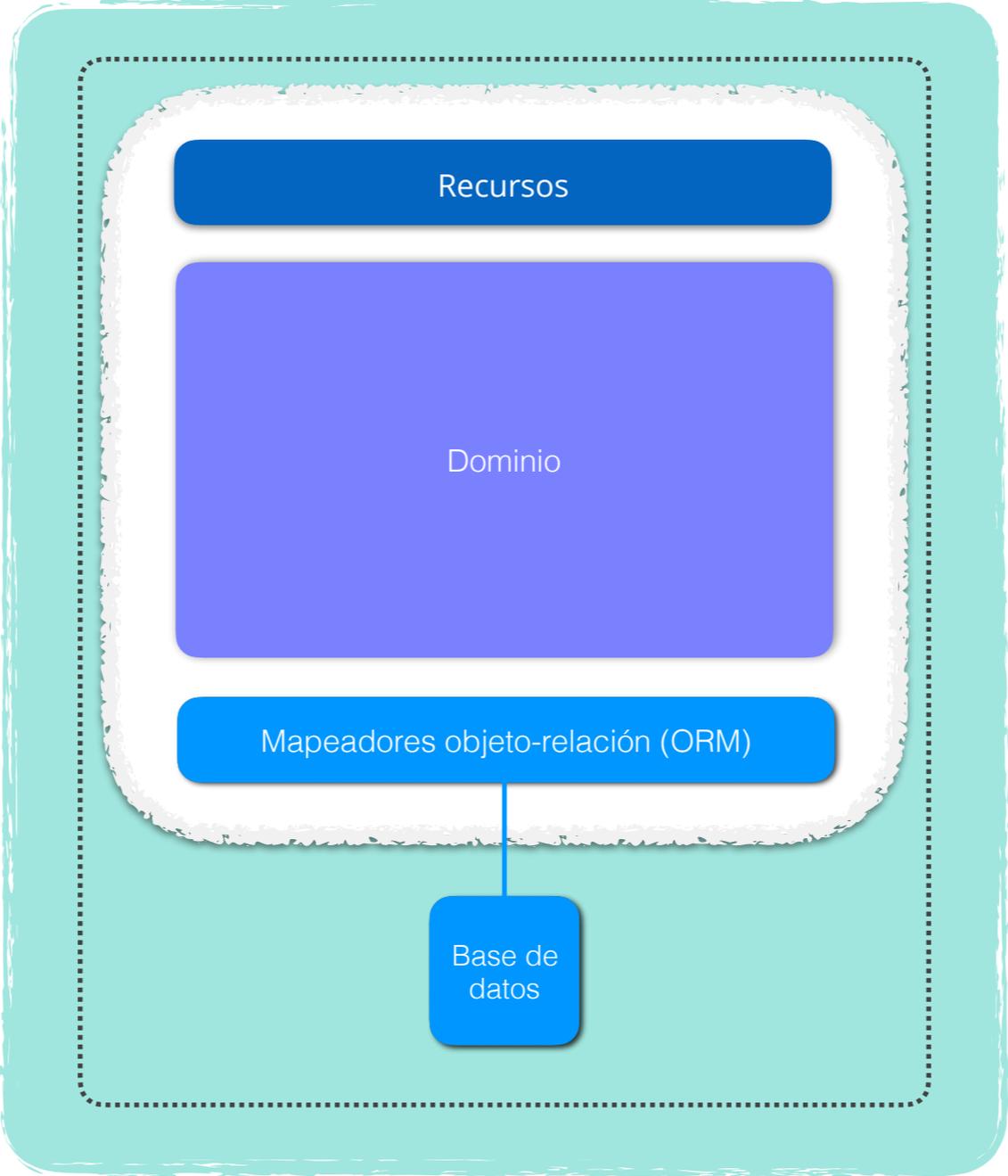
Dominio

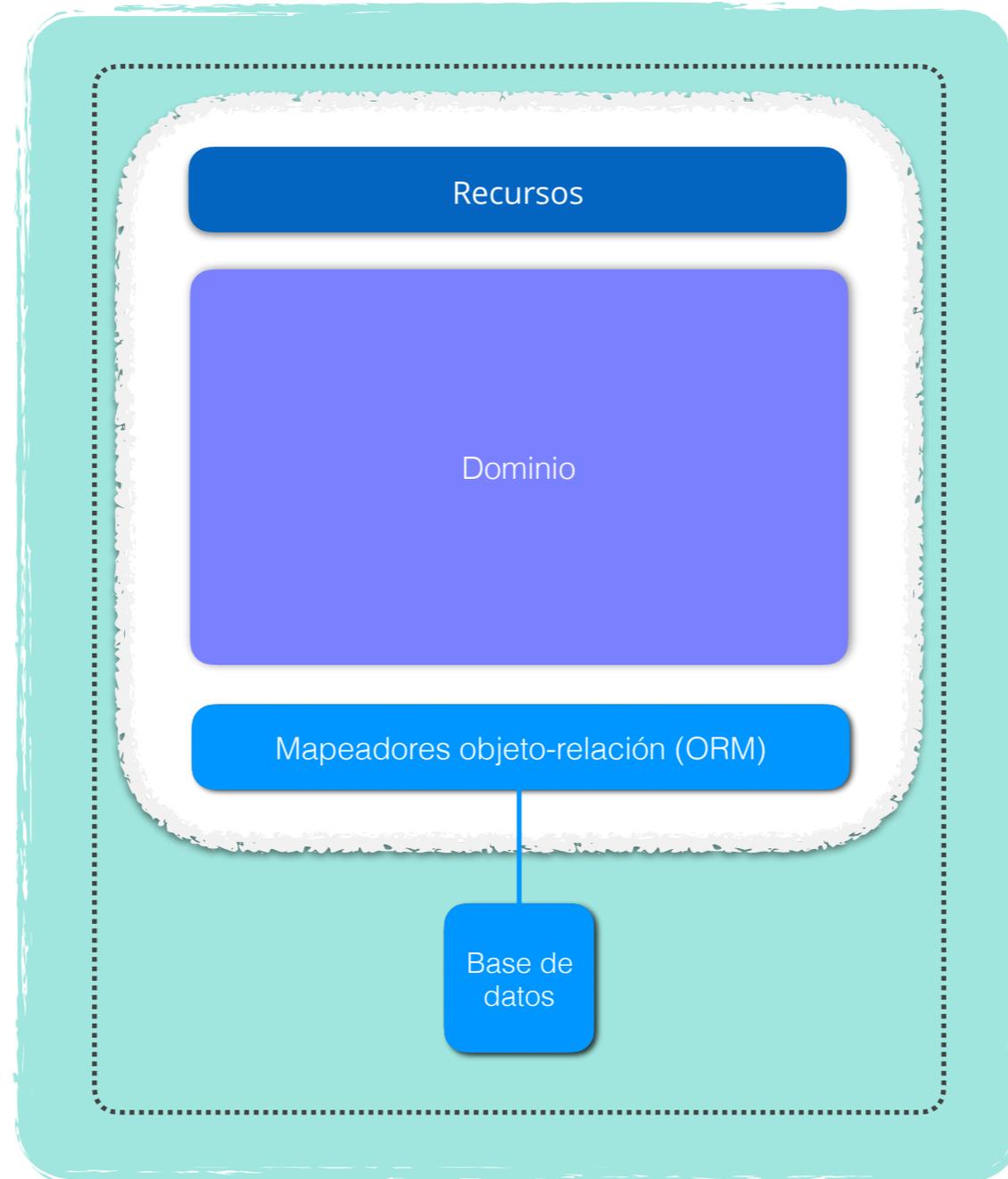
Mapeadores objeto-relación (ORM)

Base de
datos

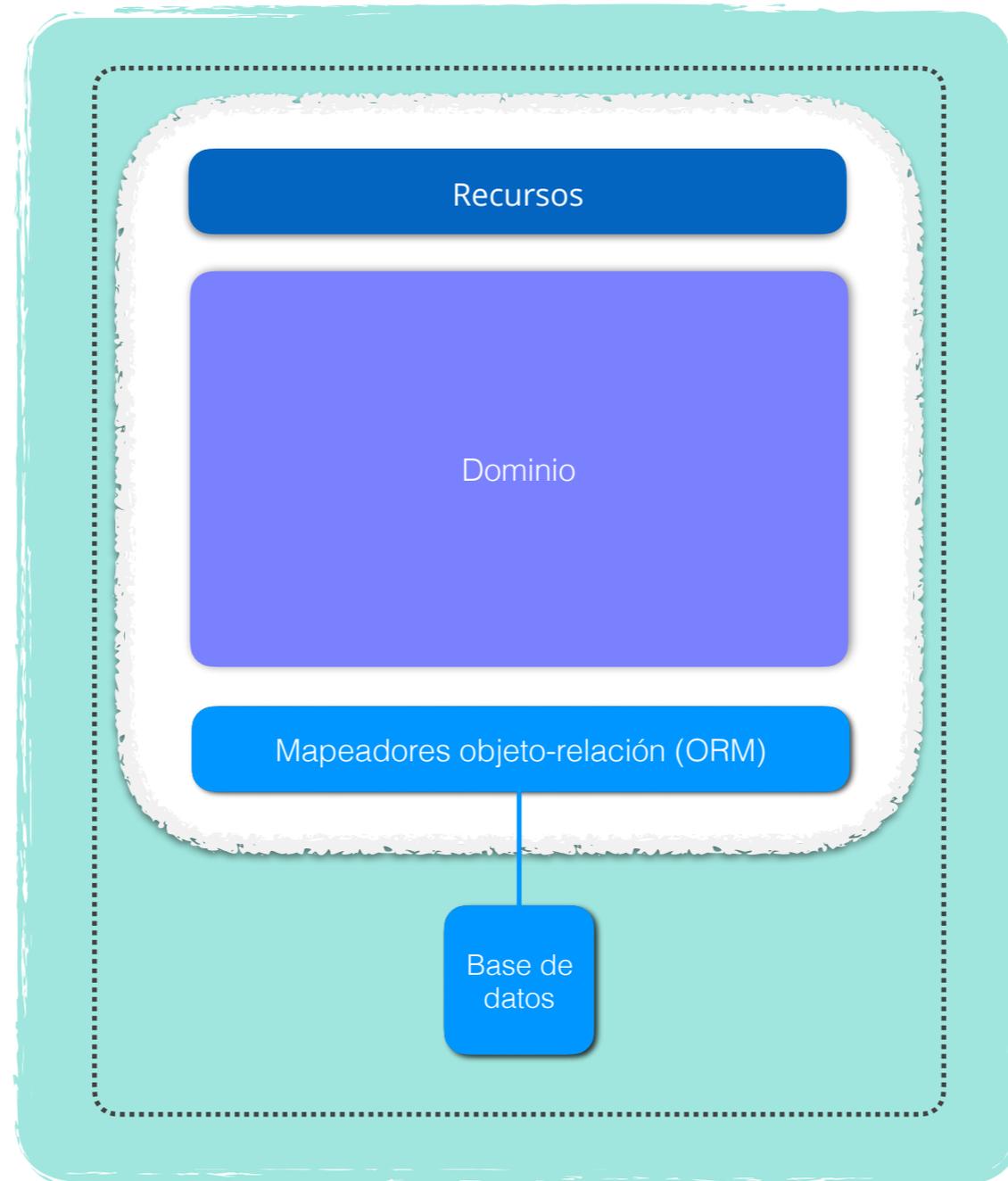
```
graph TD; Recursos[Recursos] --- Dominio[Dominio]; Dominio --- ORM[Mapeadores objeto-relación (ORM)]; ORM --- BaseDatos[Base de datos];
```

The diagram illustrates the interaction between different layers in a software application. It features a central white rounded rectangle with a light blue border, containing three stacked rounded rectangular boxes: a dark blue box at the top labeled 'Recursos', a large purple box in the middle labeled 'Dominio', and a blue box at the bottom labeled 'Mapeadores objeto-relación (ORM)'. Below this central area, a separate blue rounded rectangle labeled 'Base de datos' is connected to the 'ORM' box by a thin blue vertical line.



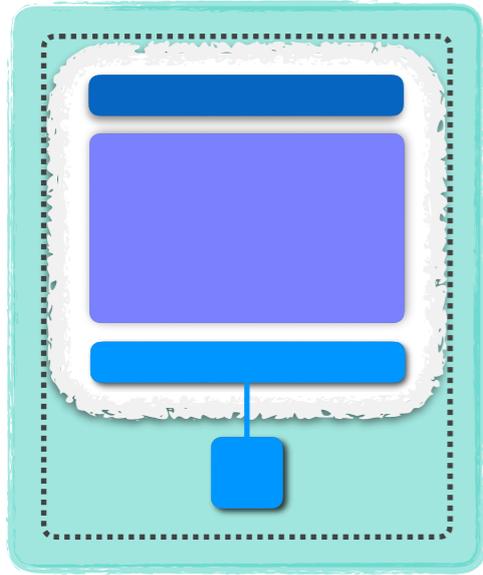


Pipeline



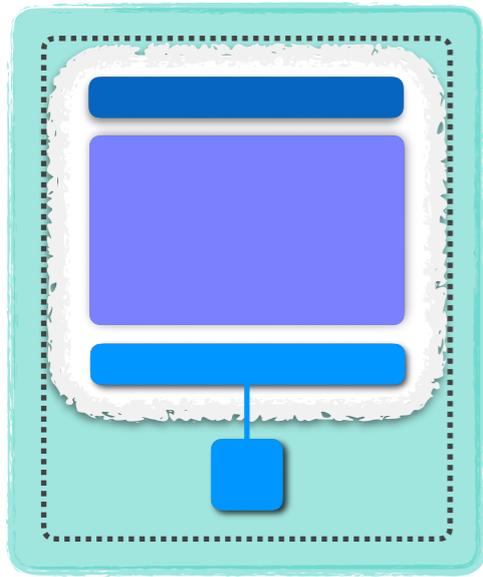
Pipeline

Pruebas
unitarias



Pipeline

Pruebas
unitarias



Qa



Pre-prod



Prod

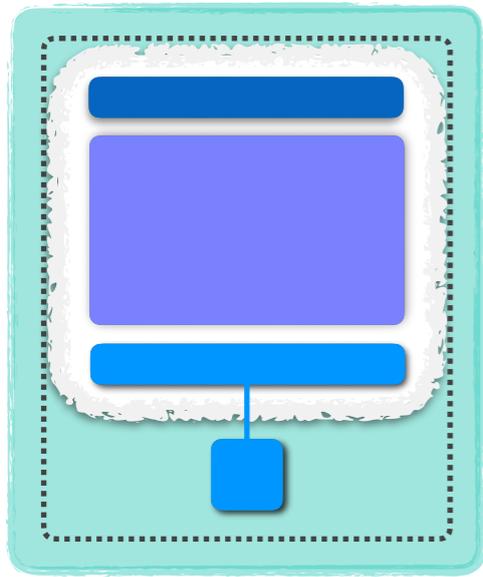


Pipeline

Pruebas unitarias



Pruebas de integración



Qa



Pre-prod



Prod

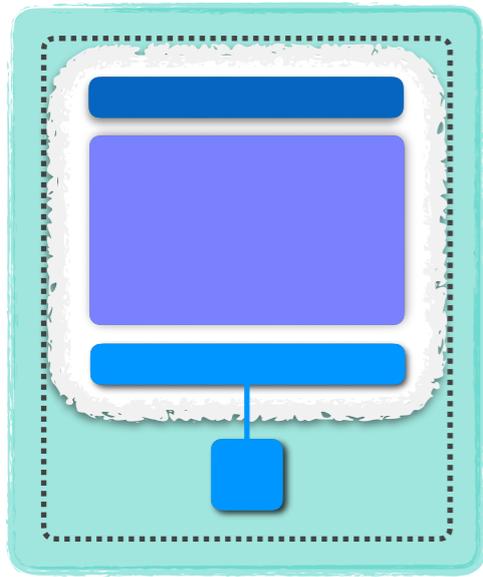


Pipeline

Pruebas
unitarias



Pruebas de
integración



Qa



Pre-prod



Prod



Pipeline

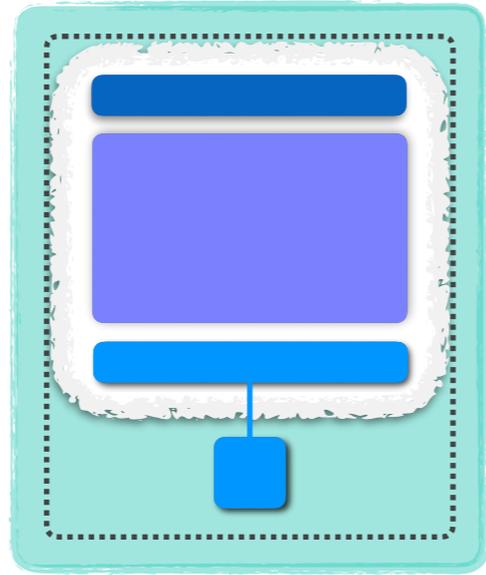
Pruebas
unitarias



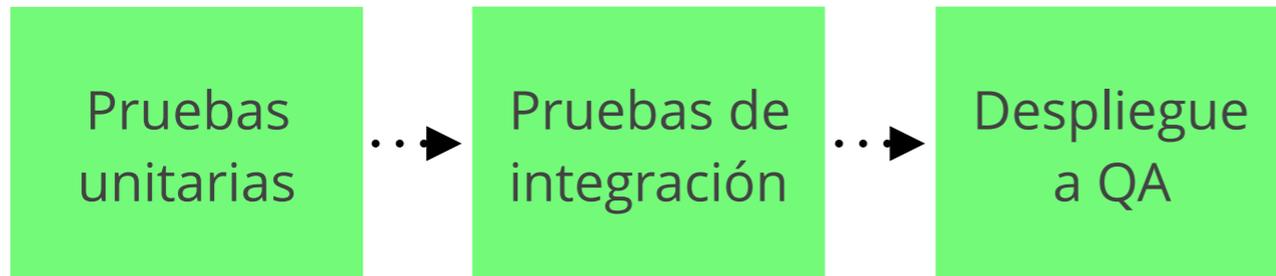
Pruebas de
integración

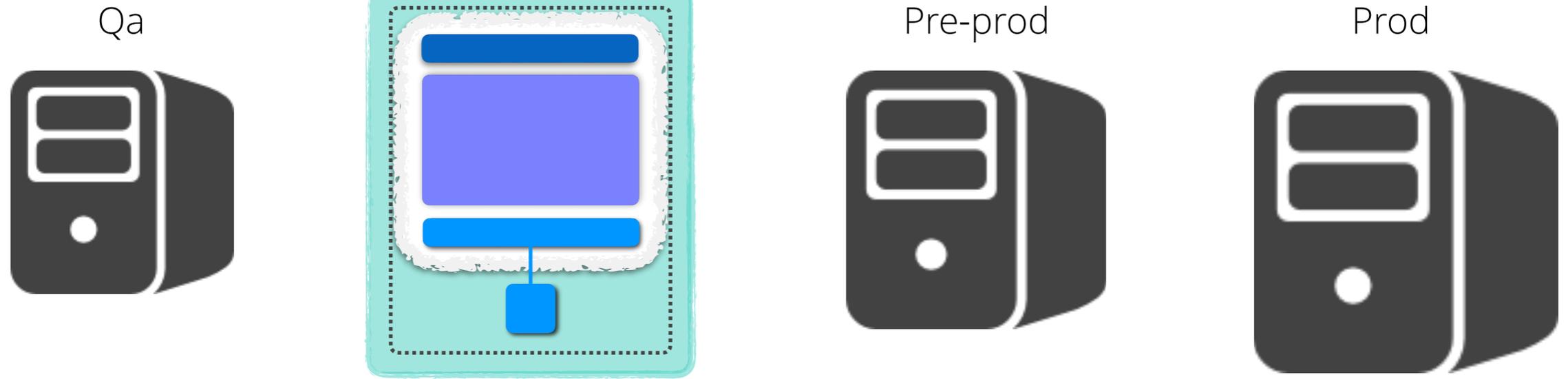


Despliegue
a QA

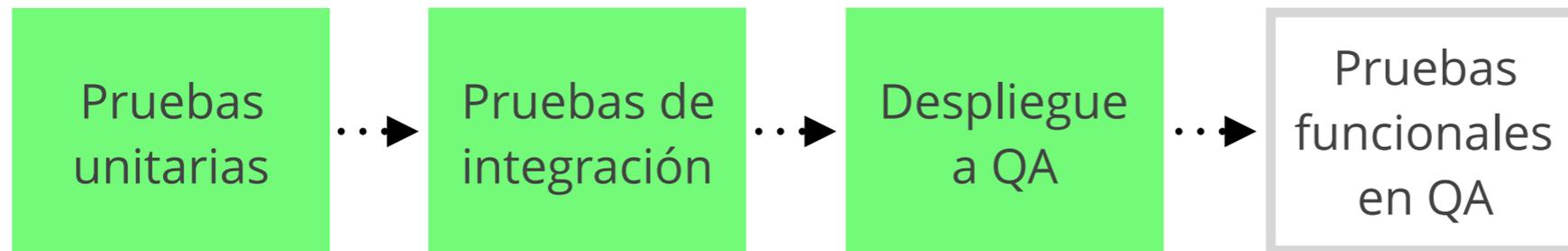


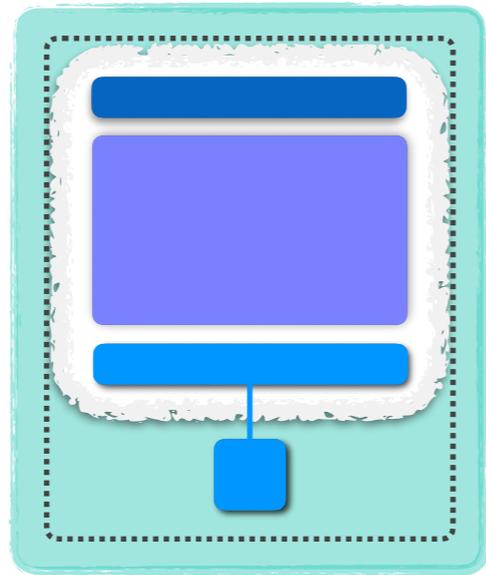
Pipeline



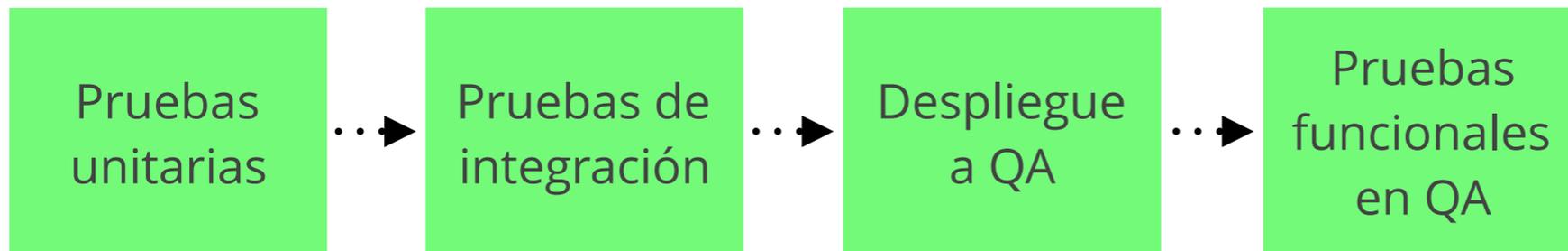


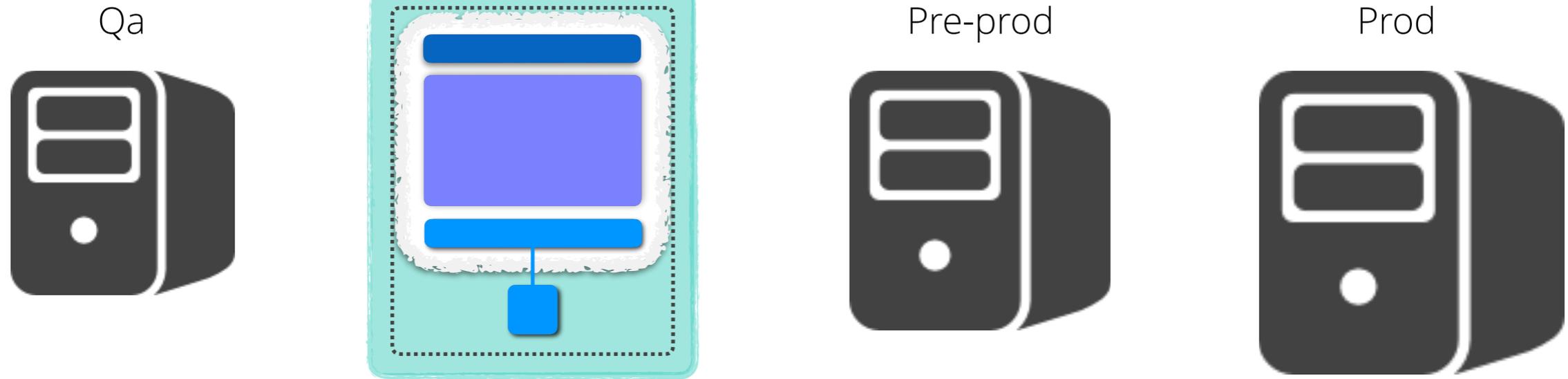
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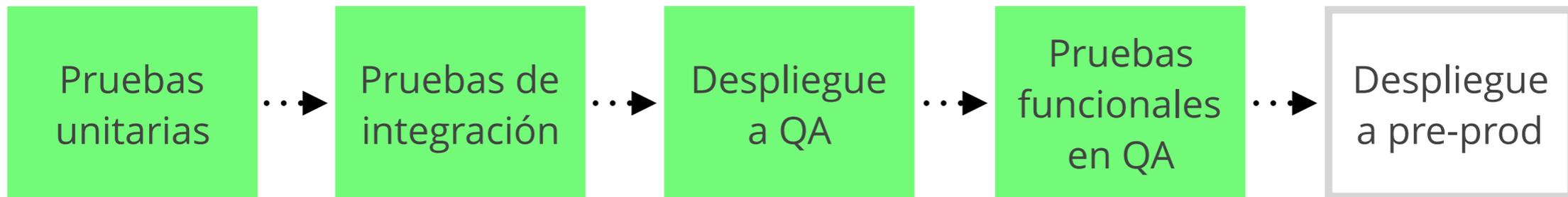


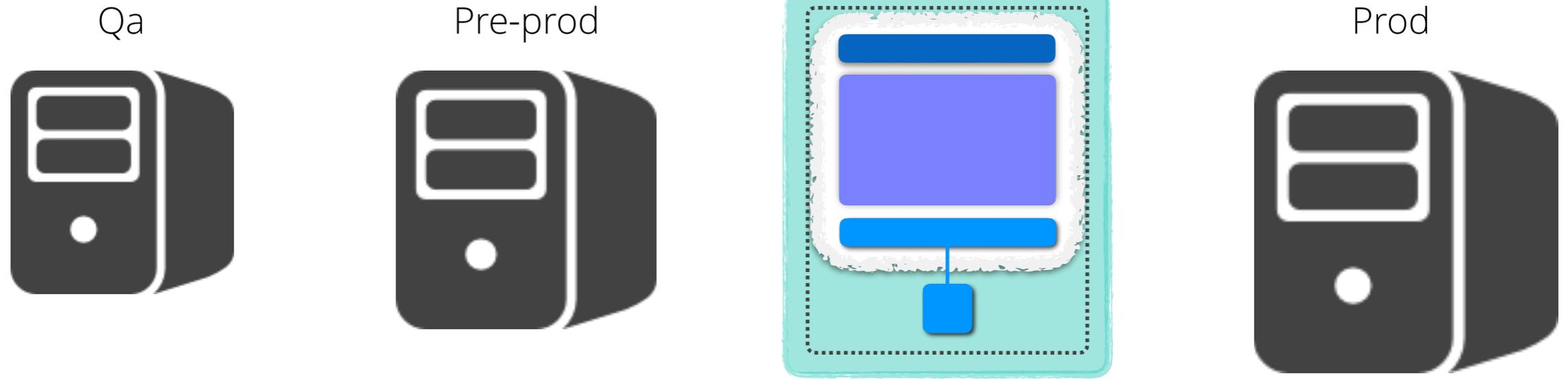
Pipeline



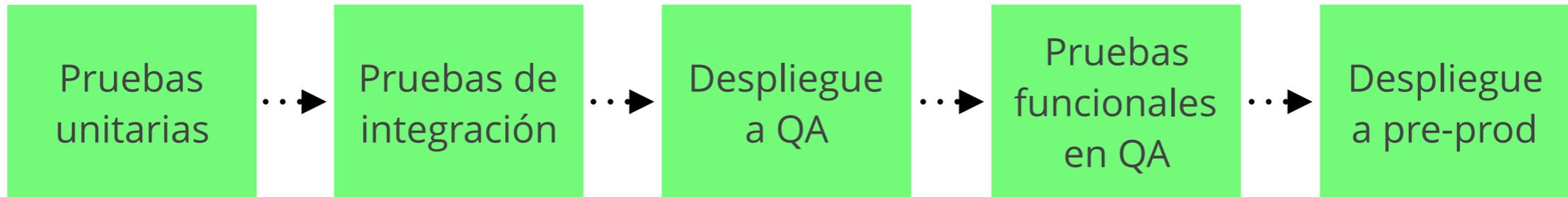


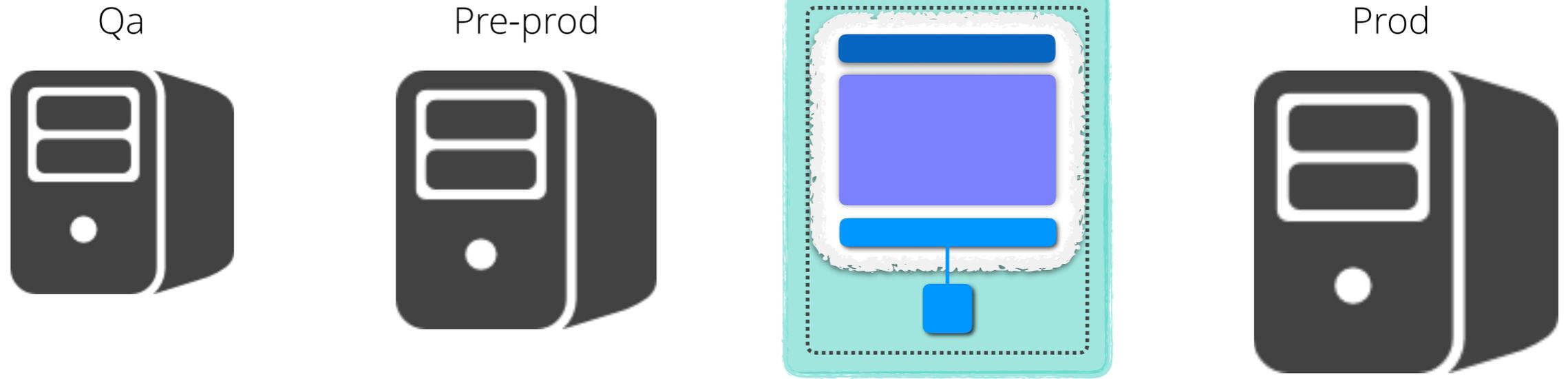
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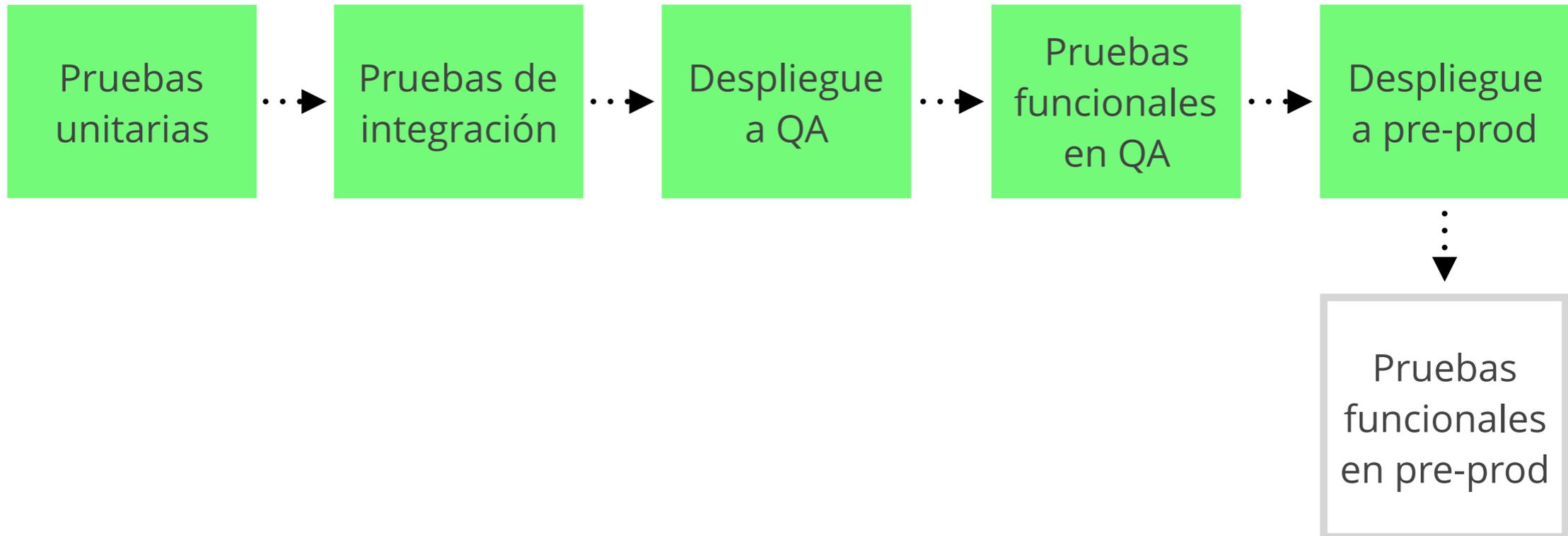


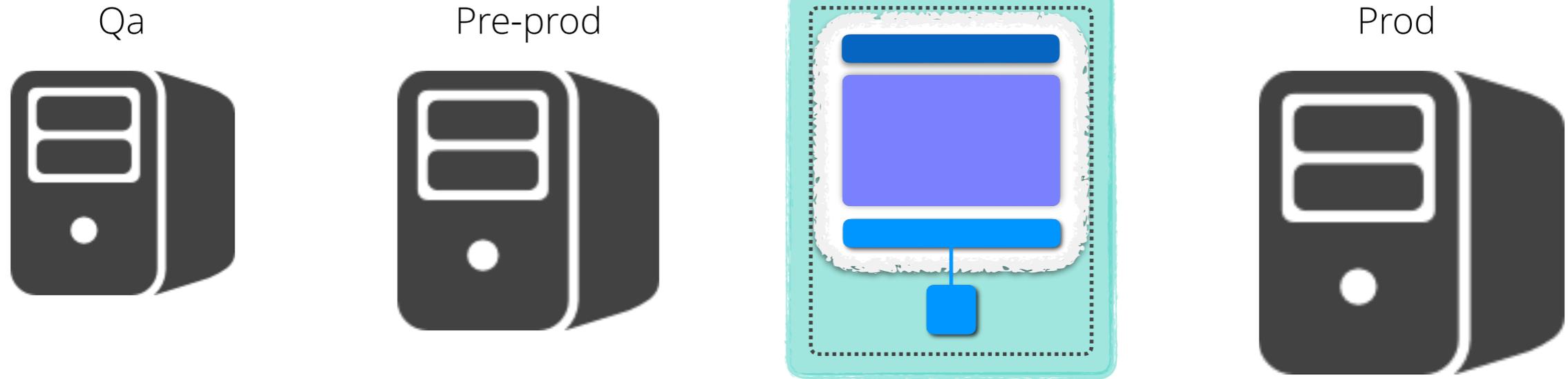
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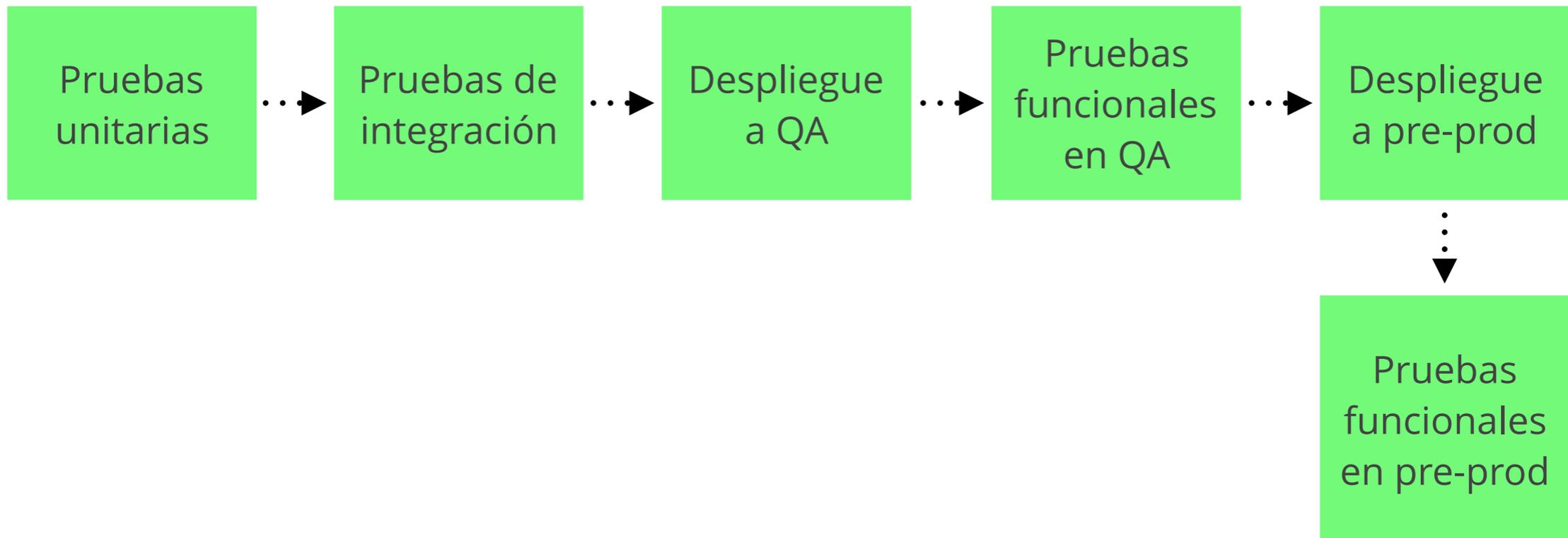


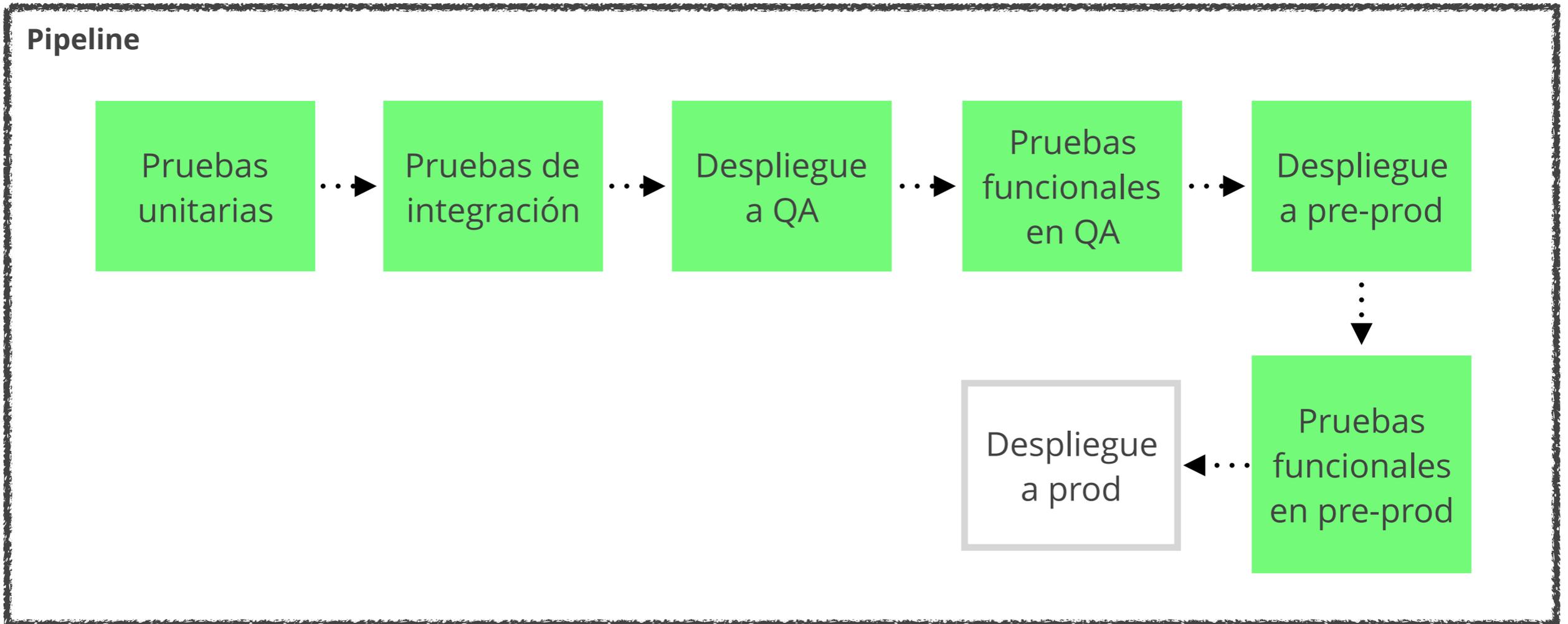
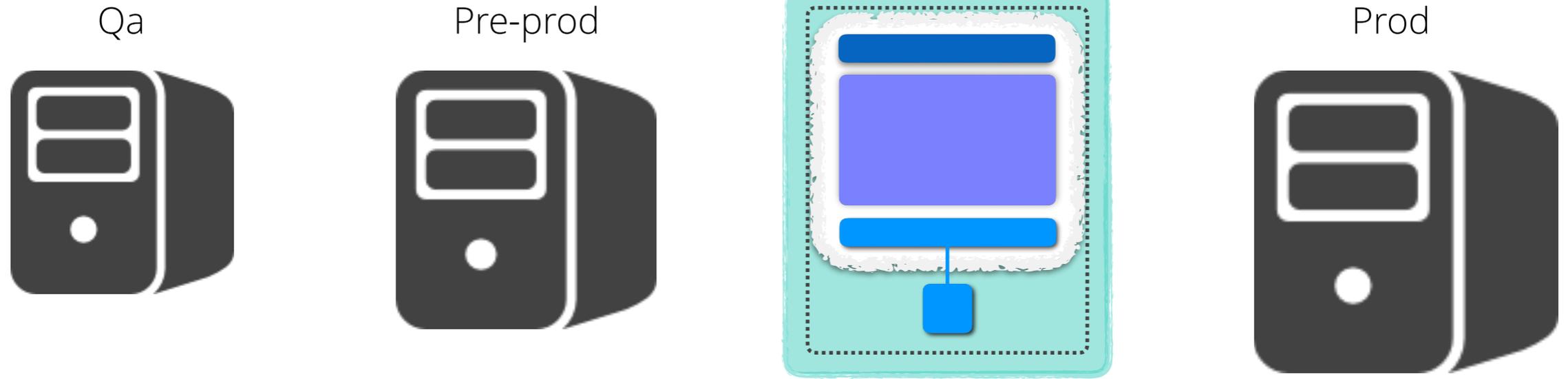
Pipeline

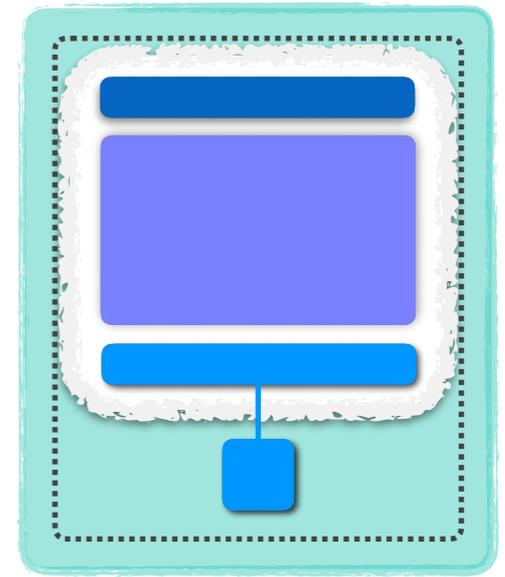




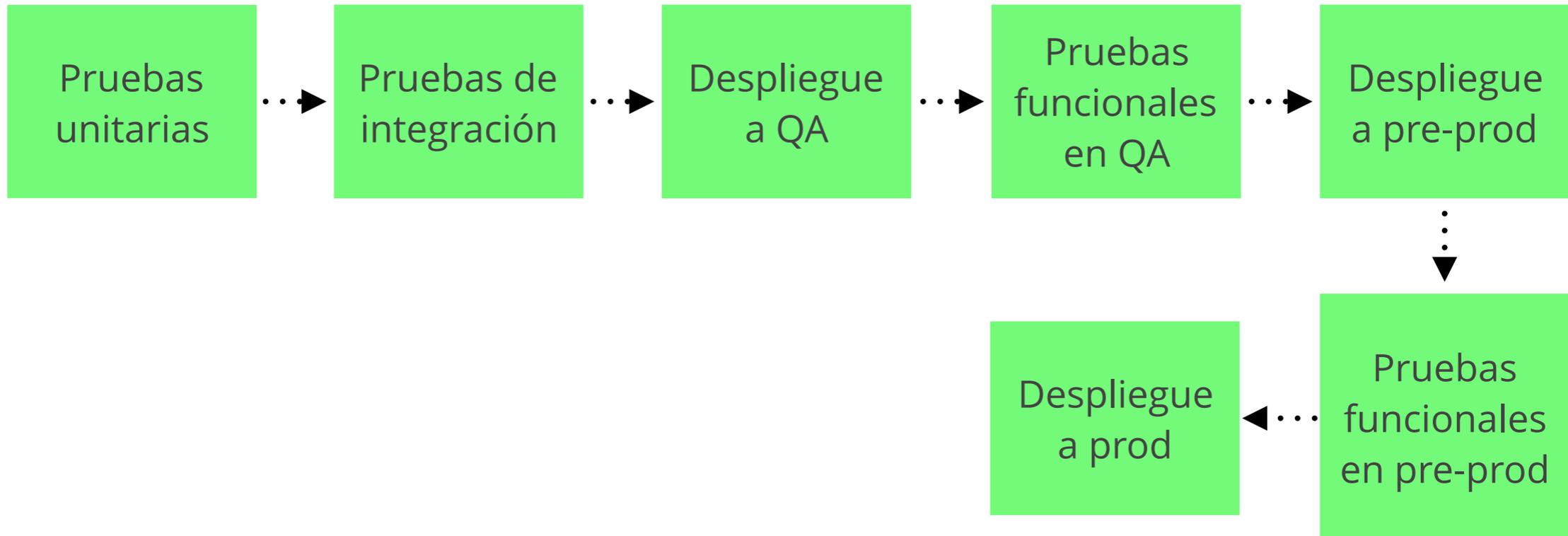
Pipeline

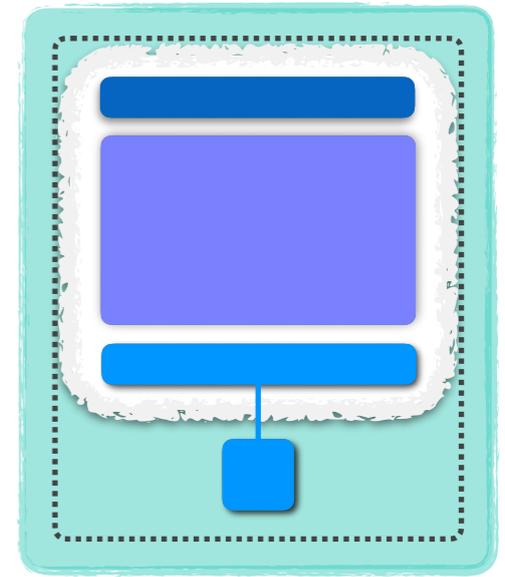




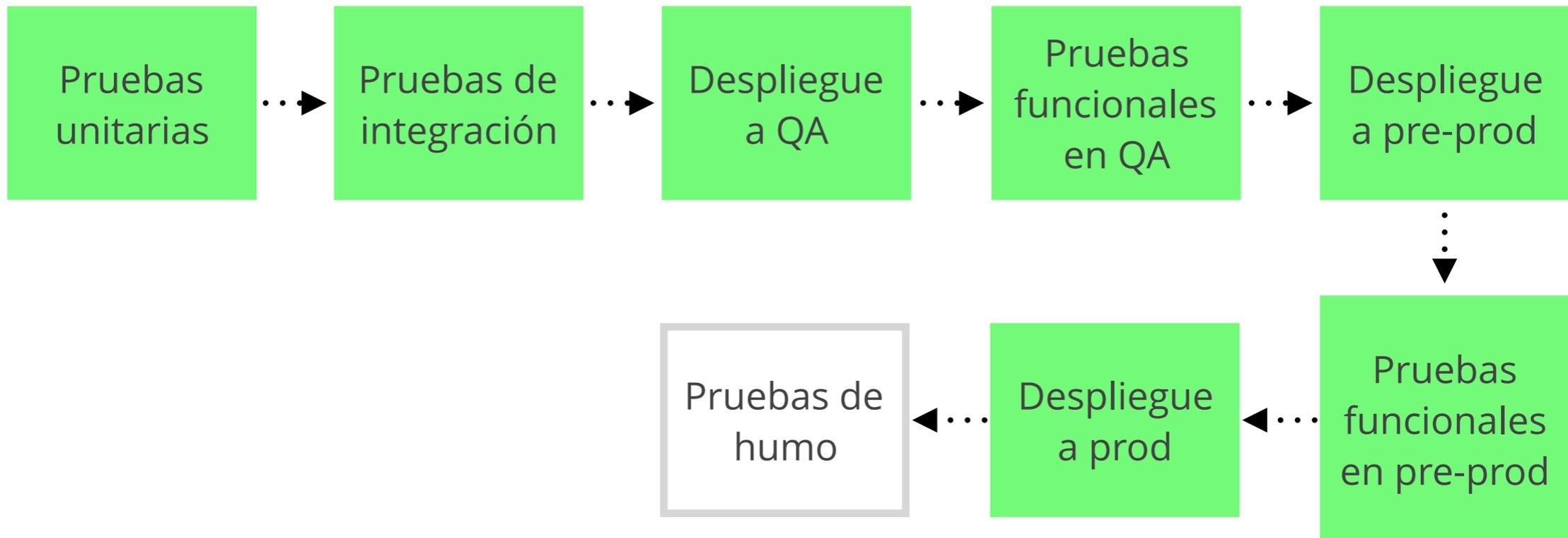


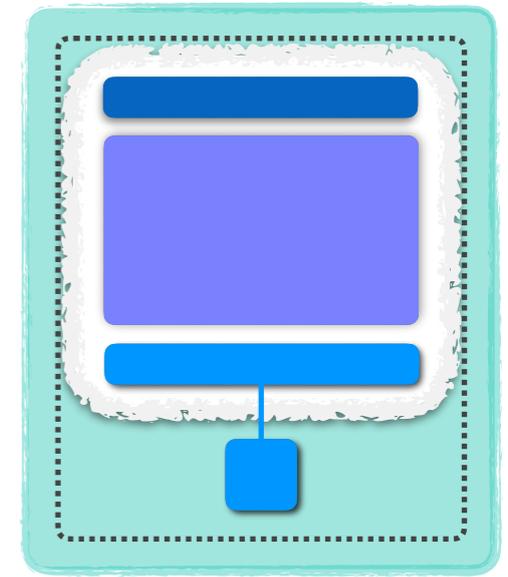
Pipeline



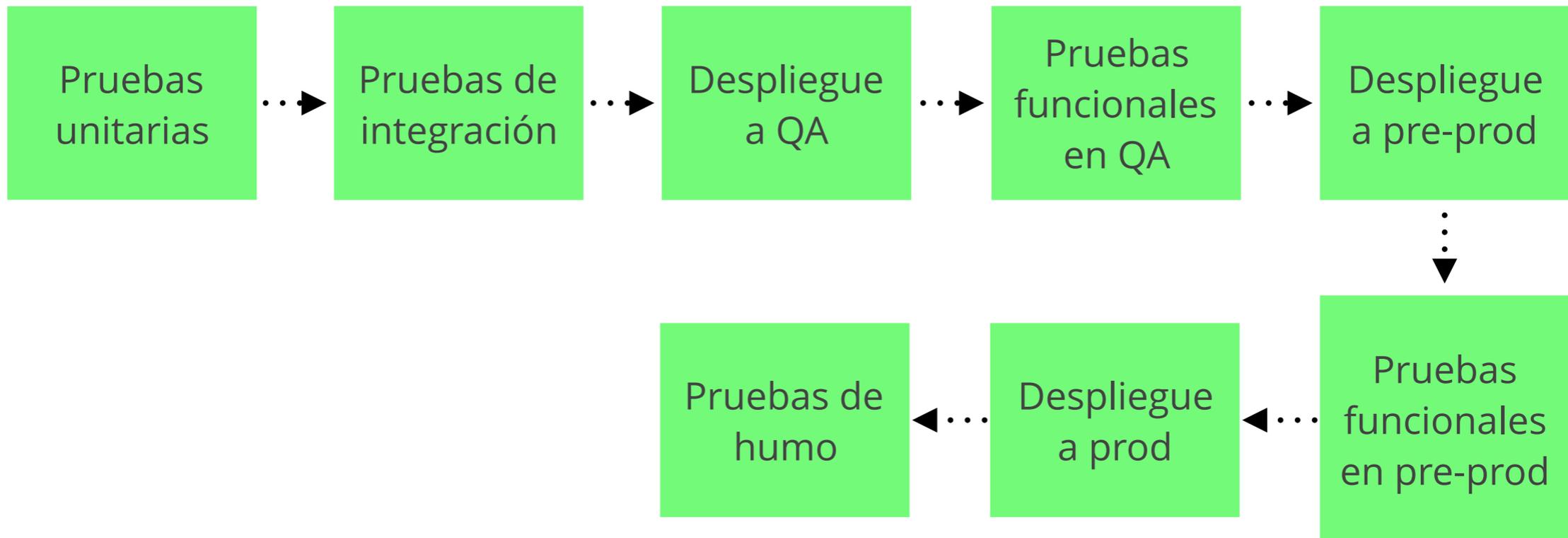


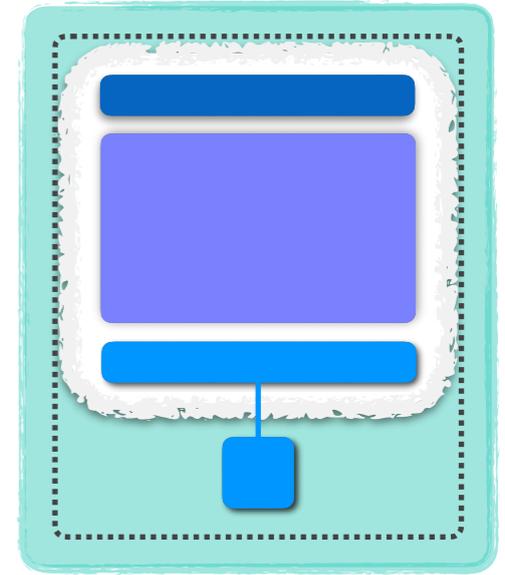
Pipeline



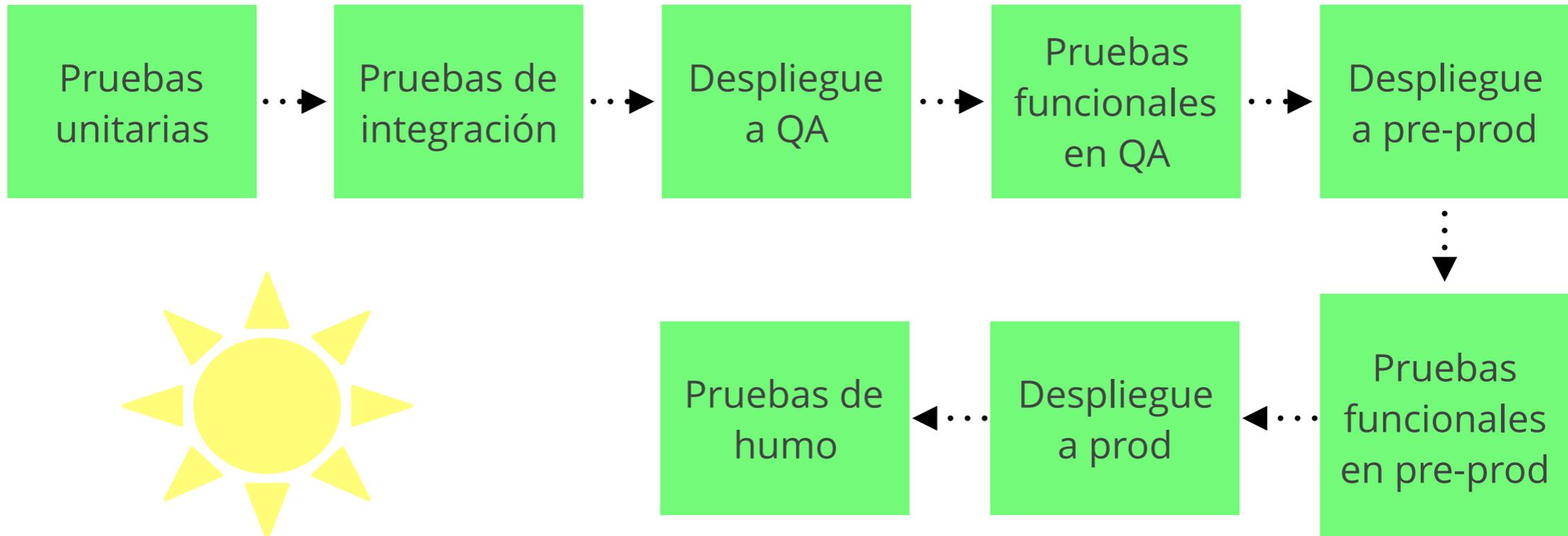


Pipeline





Pipeline



Recursos

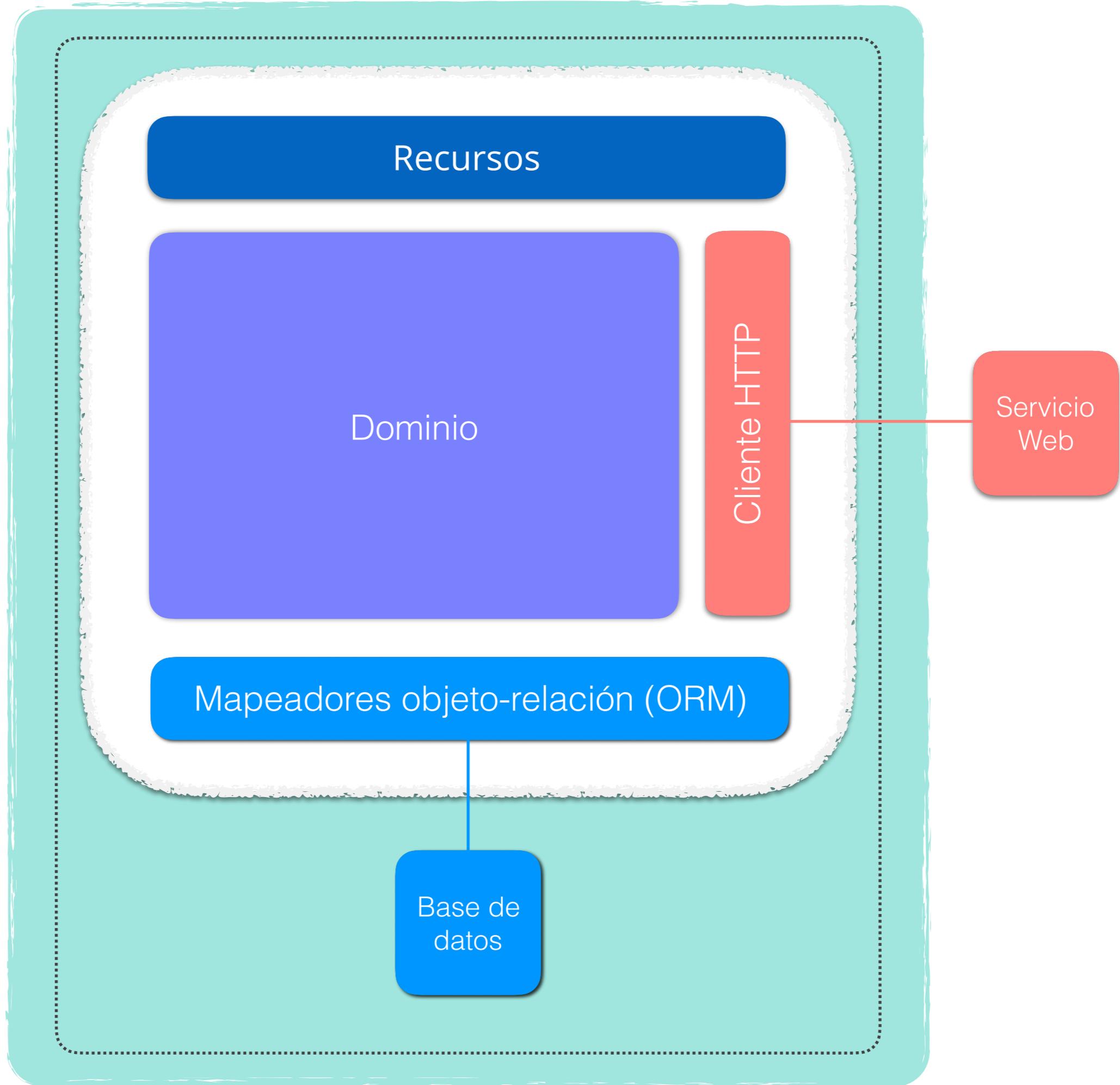
Dominio

Mapeadores objeto-relación (ORM)

Base de
datos

```
graph TD; Recursos[Recursos] --- Dominio[Dominio]; Dominio --- ORM[Mapeadores objeto-relación (ORM)]; ORM --- BaseDatos[Base de datos];
```

The diagram illustrates the interaction between different layers in a software application. It features a central white rounded rectangle with a light blue border, containing three stacked rounded rectangular boxes: a dark blue box at the top labeled 'Recursos', a large purple box in the middle labeled 'Dominio', and a blue box at the bottom labeled 'Mapeadores objeto-relación (ORM)'. Below this central area, a separate blue rounded rectangle labeled 'Base de datos' is connected to the 'ORM' box by a thin blue vertical line.



Recursos

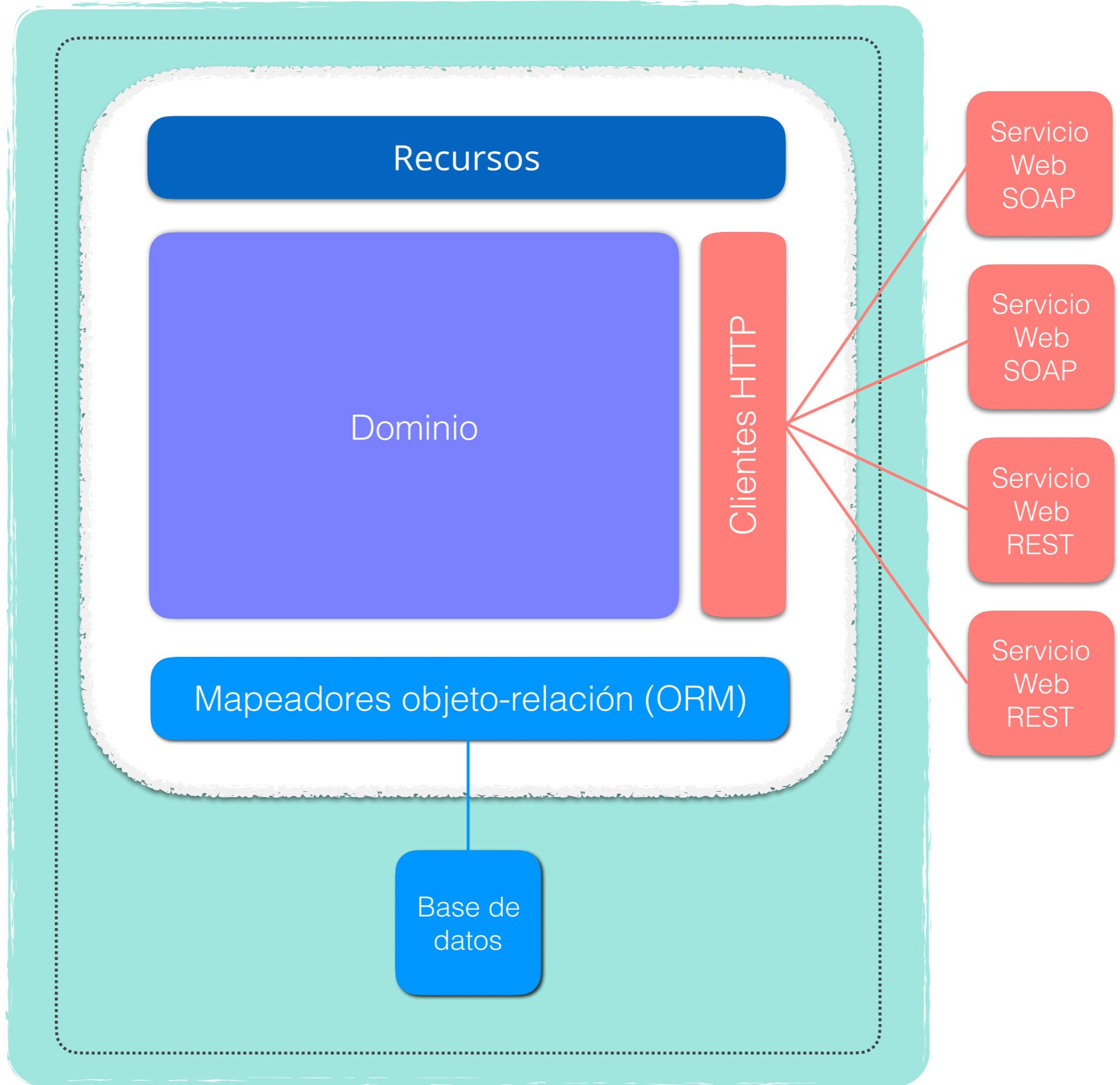
Dominio

Cliente HTTP

Mapeadores objeto-relación (ORM)

Base de datos

Servicio Web



Recursos

Dominio

Mapeadores objeto-relación (ORM)

Base de datos

Clientes HTTP

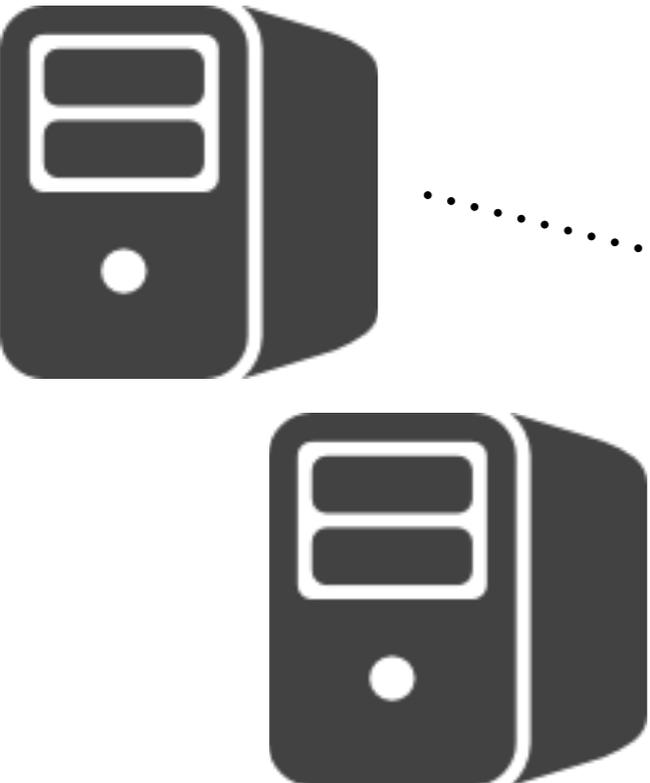
Servicio Web SOAP

Servicio Web SOAP

Servicio Web REST

Servicio Web REST

Ambientes de prueba



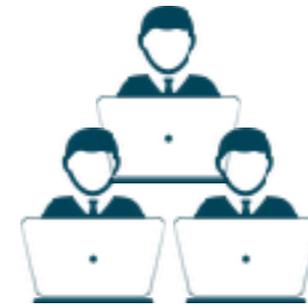
Servicios externos



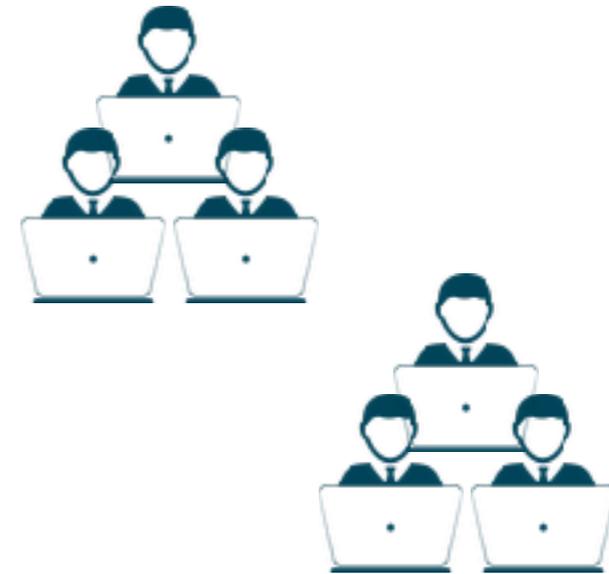
Contención de datos entre equipos



Contención de datos entre equipos



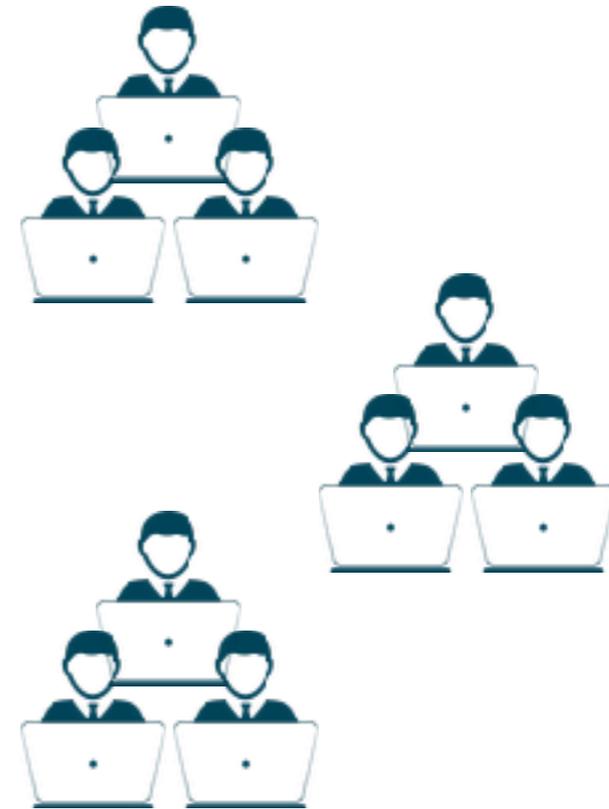
Contención de datos entre equipos



Contención de datos entre equipos



Contención de datos entre equipos



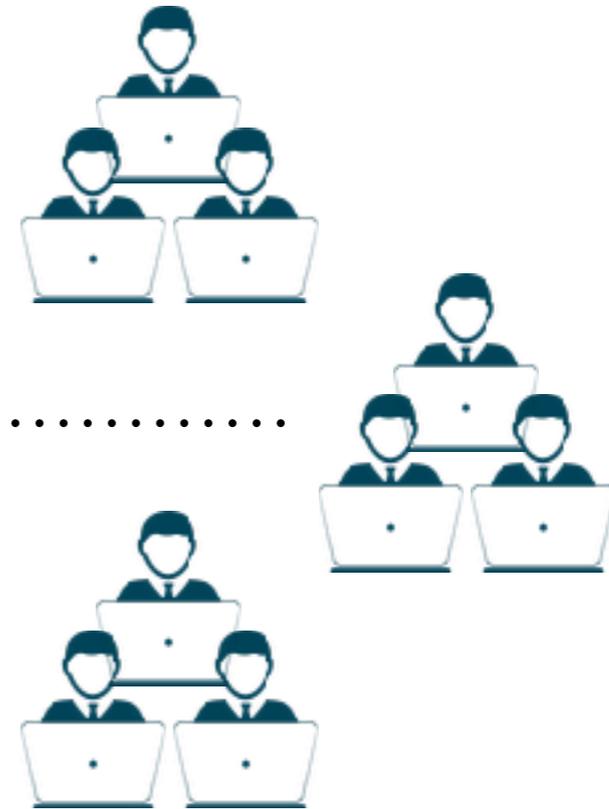
Disponibilidad del ambiente

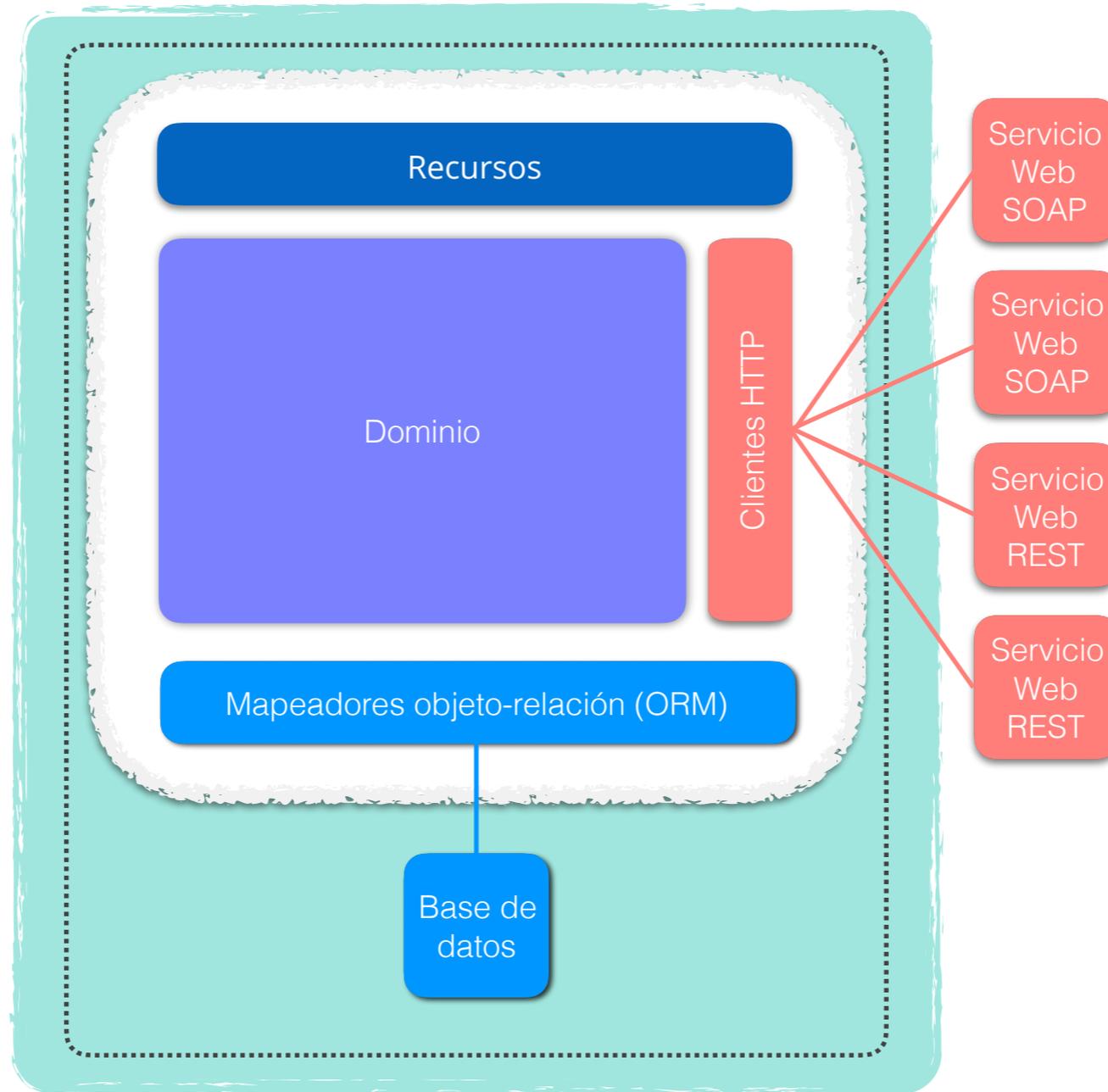


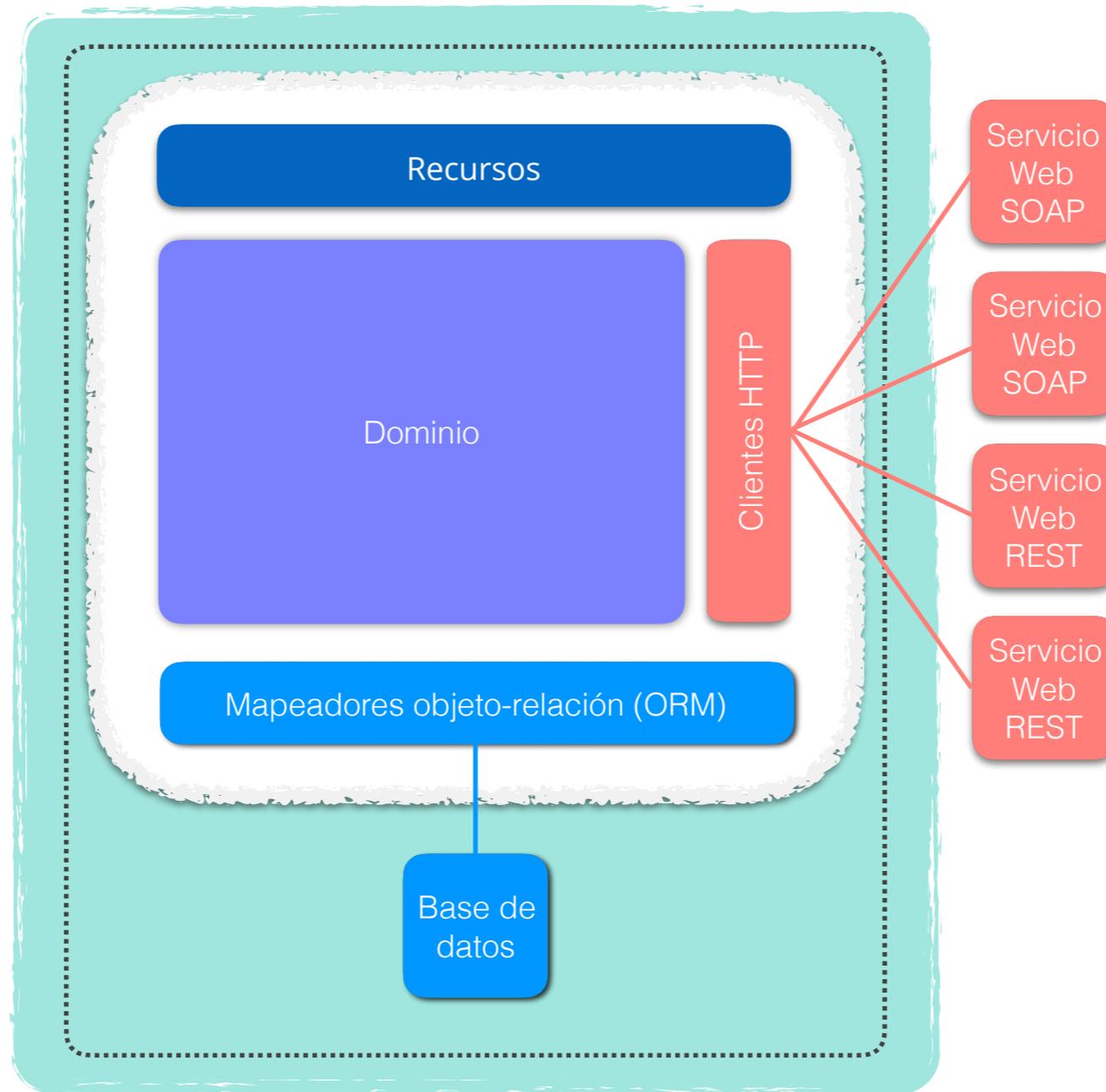
Disponibilidad del ambiente



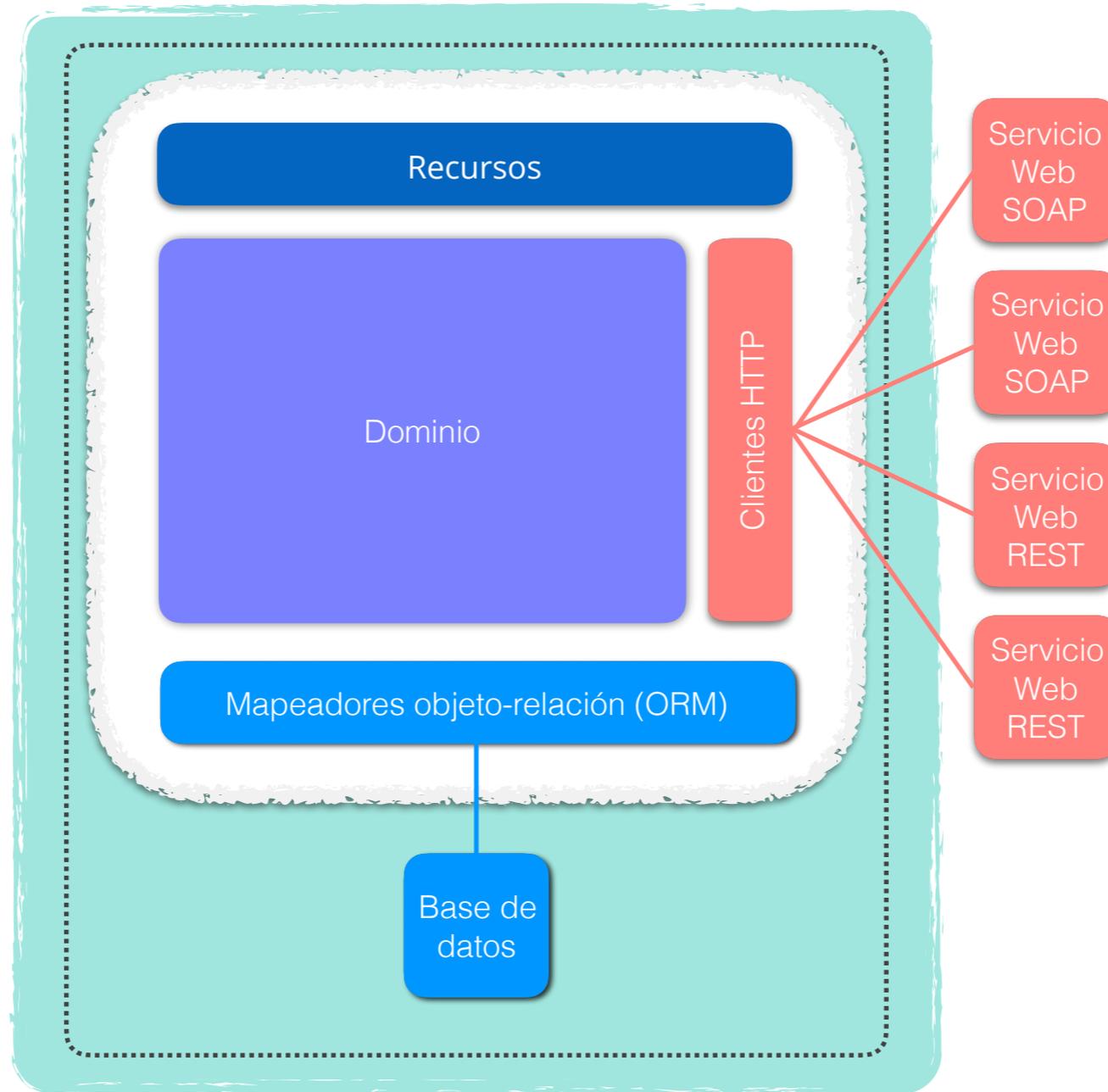
Disponibilidad del ambiente





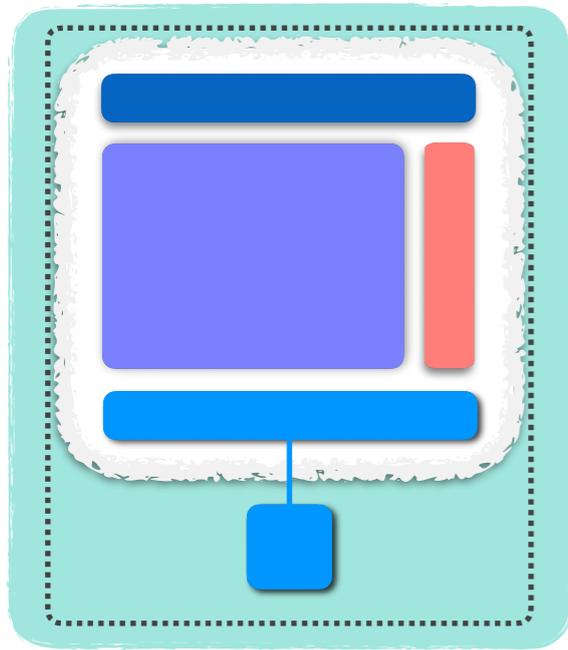


Pipeline



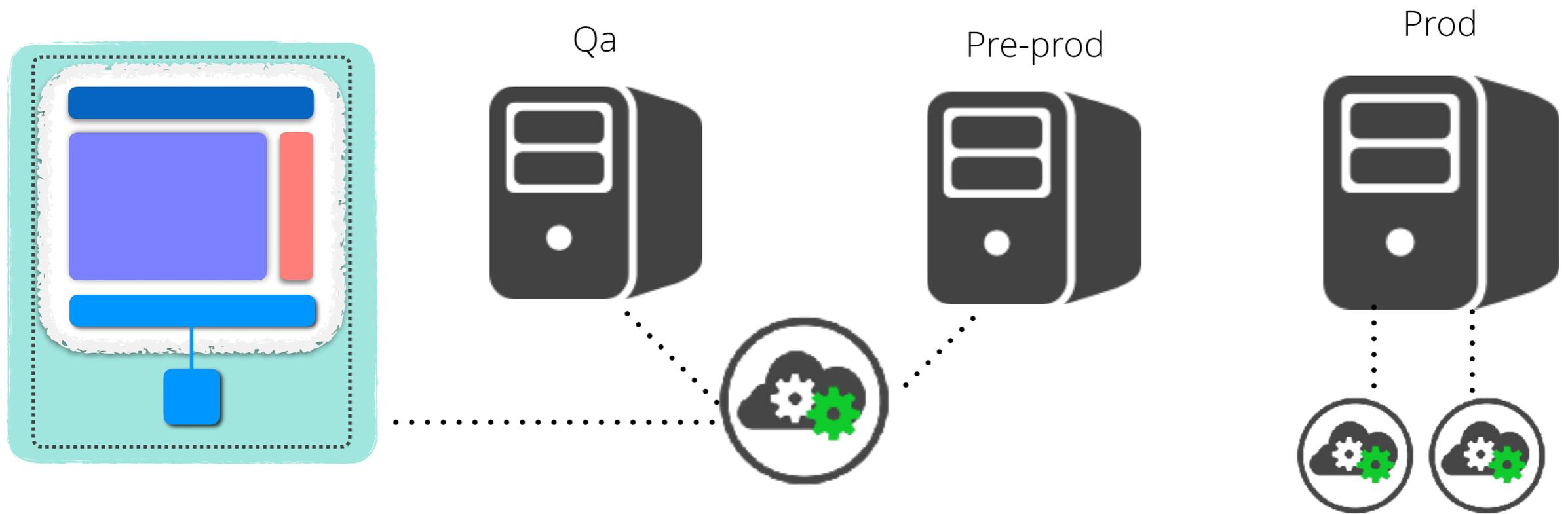
Pipeline

Pruebas unitarias



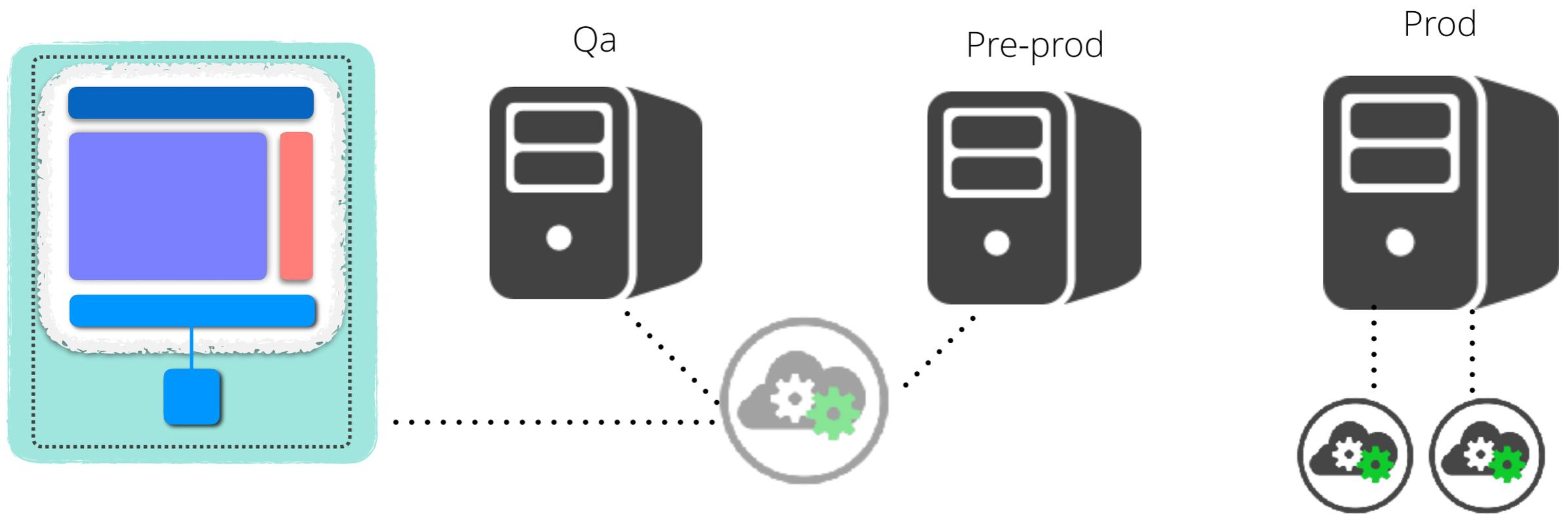
Pipeline

Pruebas
unitarias



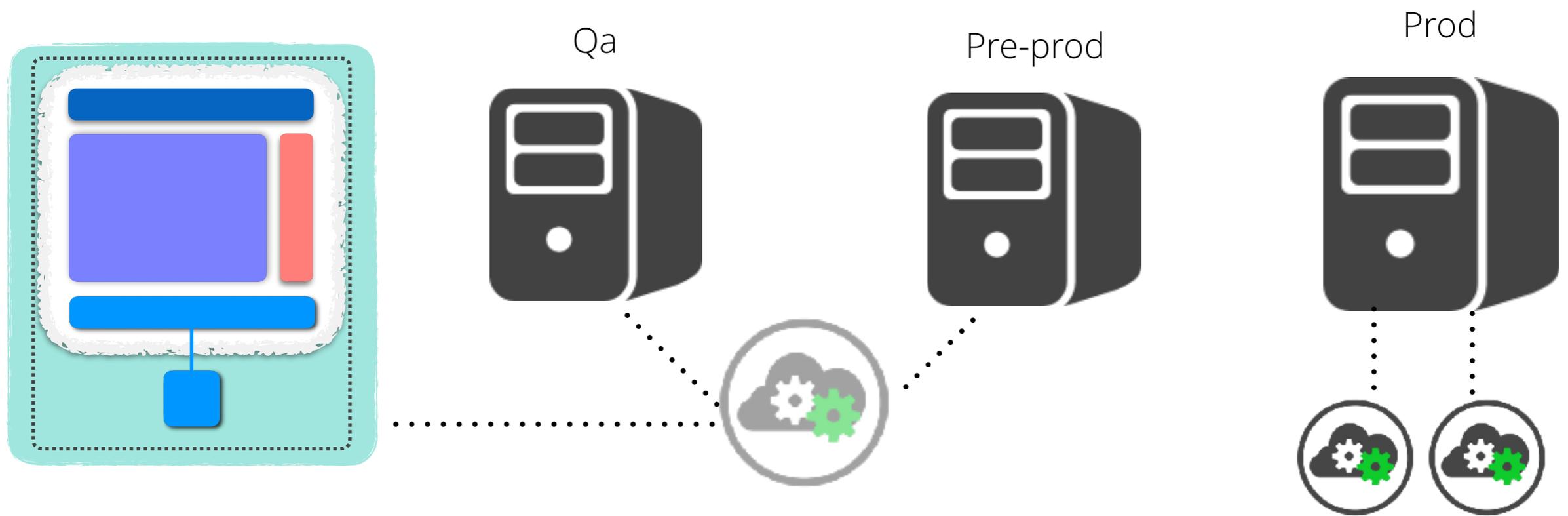
Pipeline

Pruebas unitarias

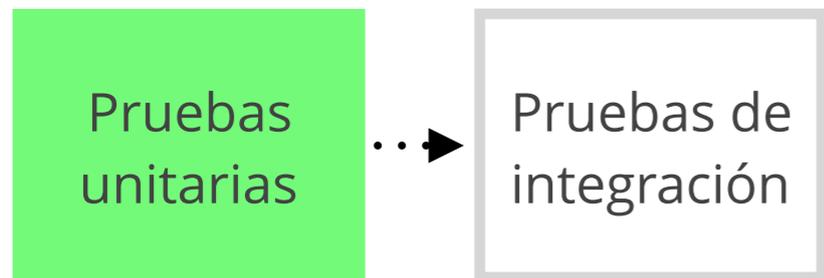


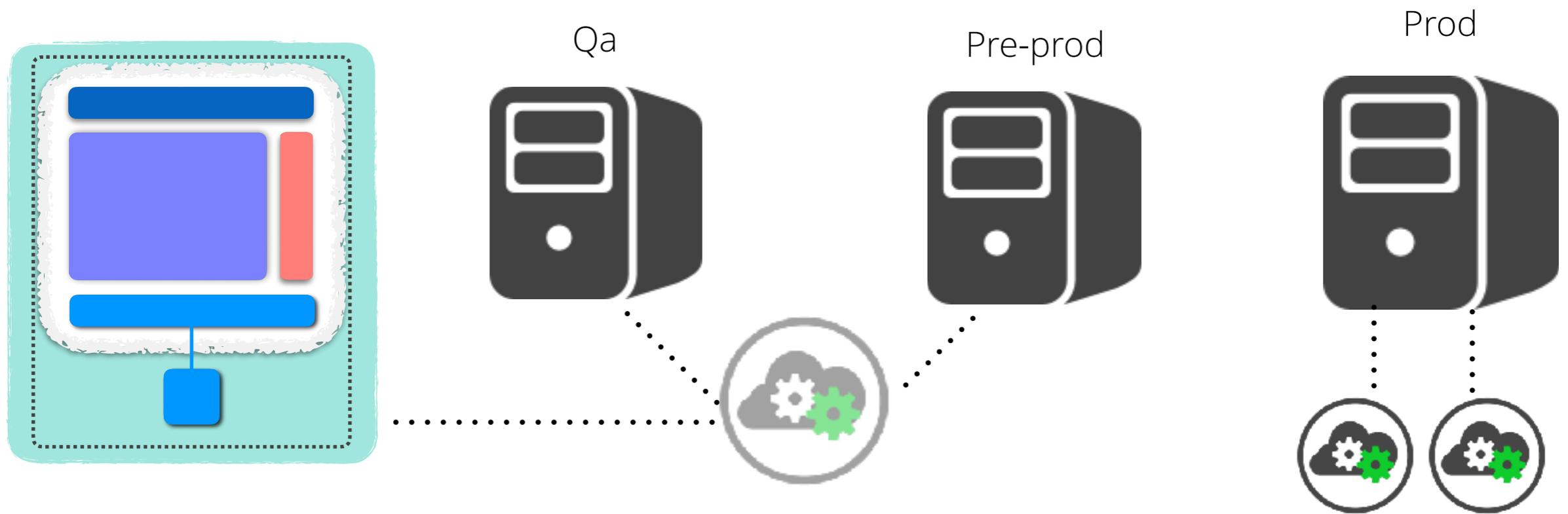
Pipeline

Pruebas unitarias

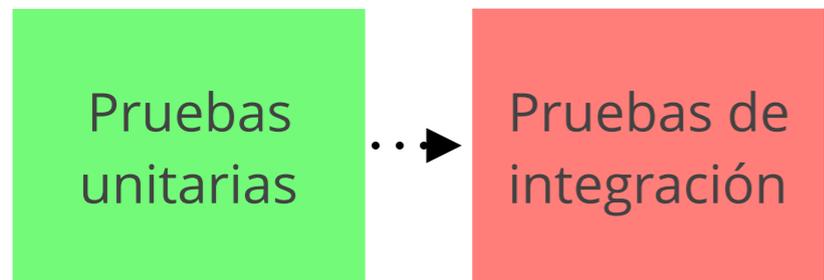


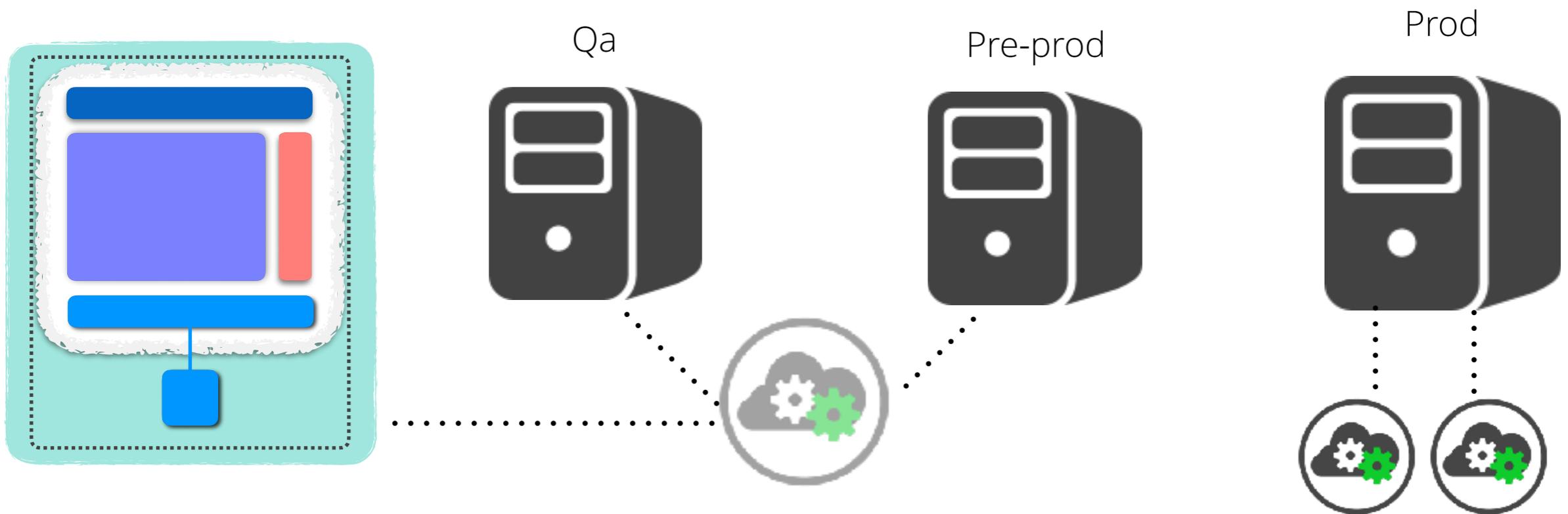
Pipeline



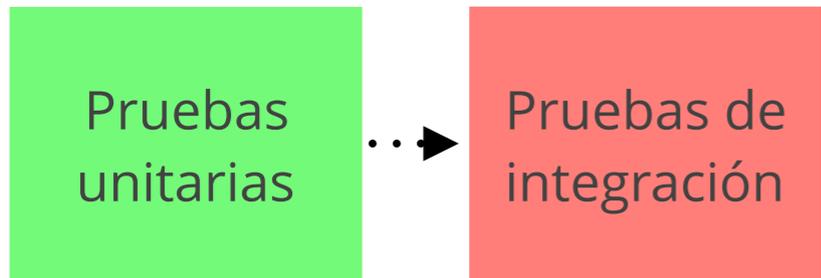


Pipeline





Pipeline



The background is a dark, textured wall covered in handwritten notes and sticky notes. The notes are in various colors and fonts, some in Spanish. One prominent note says "Customers are open to buying 'un-planned' items if they are relevant to the...". Another says "Customers will prescan items over queuing". There are also notes with the words "Todo", "In Progress", and "Done" written on them. The overall tone is brown and sepia.

PATRONES DE PRUEBAS DE INTEGRACIÓN

Algunos de los patrones más frecuentemente utilizados

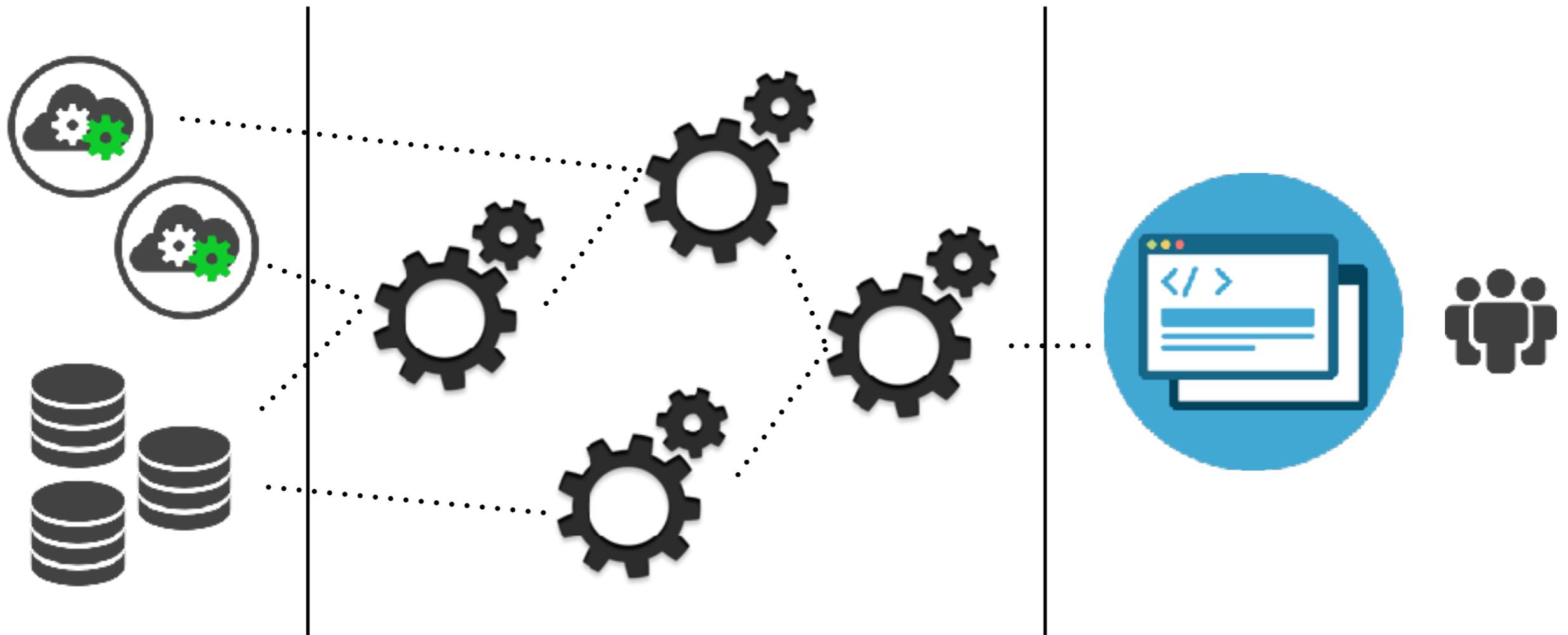
Despliegues secuenciales

Llevar a cabo pruebas de extremo a extremo en un entorno previo a producción

Despliegues secuenciales

Llevar a cabo pruebas de extremo a extremo en un entorno previo a producción

Despliegues secuenciales



Llevar a cabo pruebas de extremo a extremo en un entorno previo a producción

Ambientes aislados

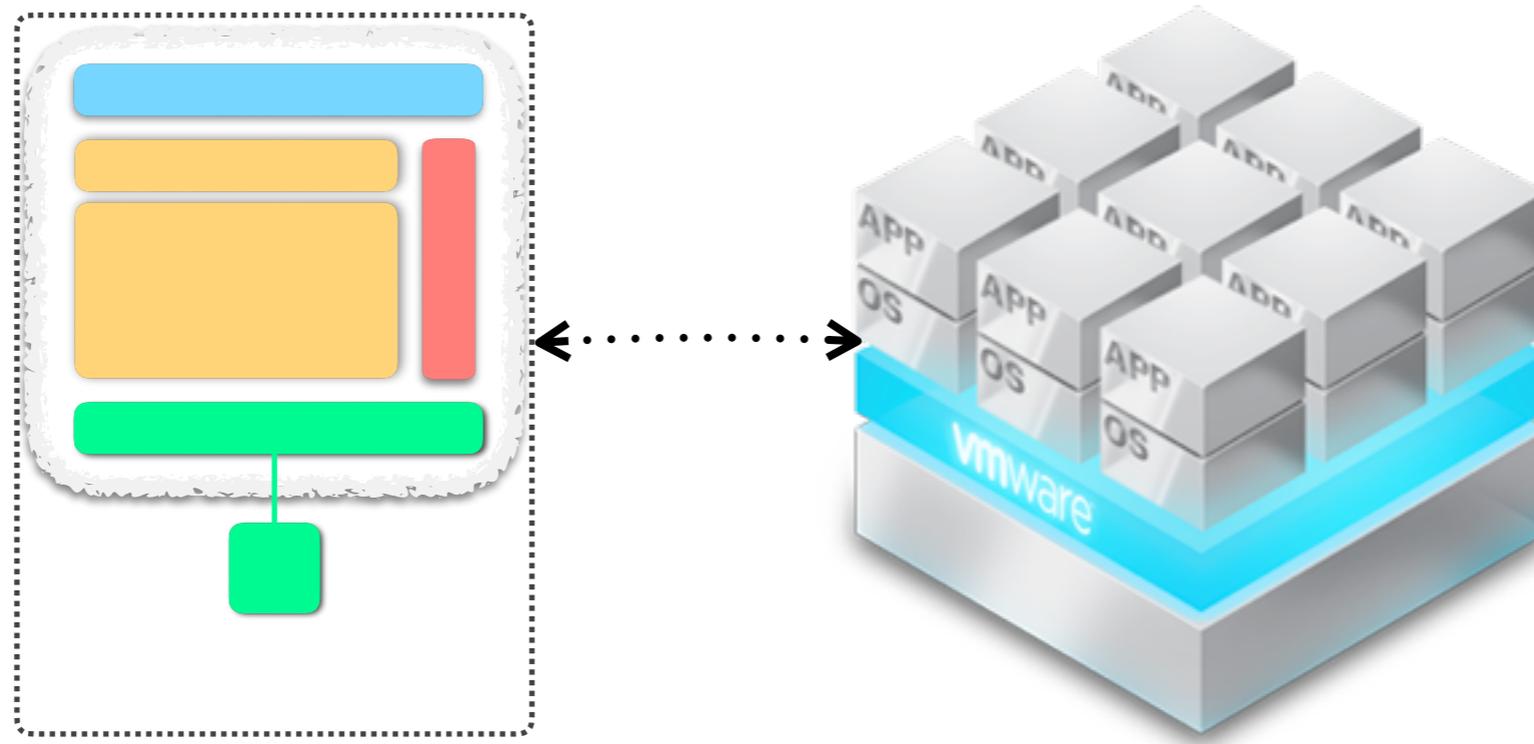
El proveedor del servicio proporciona despliegues automatizados permitiéndote desplegar su servicio en tu ambiente

Ambientes aislados

El proveedor del servicio proporciona despliegues automatizados permitiéndote desplegar su servicio en tu ambiente

Ambientes aislados

Localhost



El proveedor del servicio proporciona despliegues automatizados permitiéndote desplegar su servicio en tu ambiente

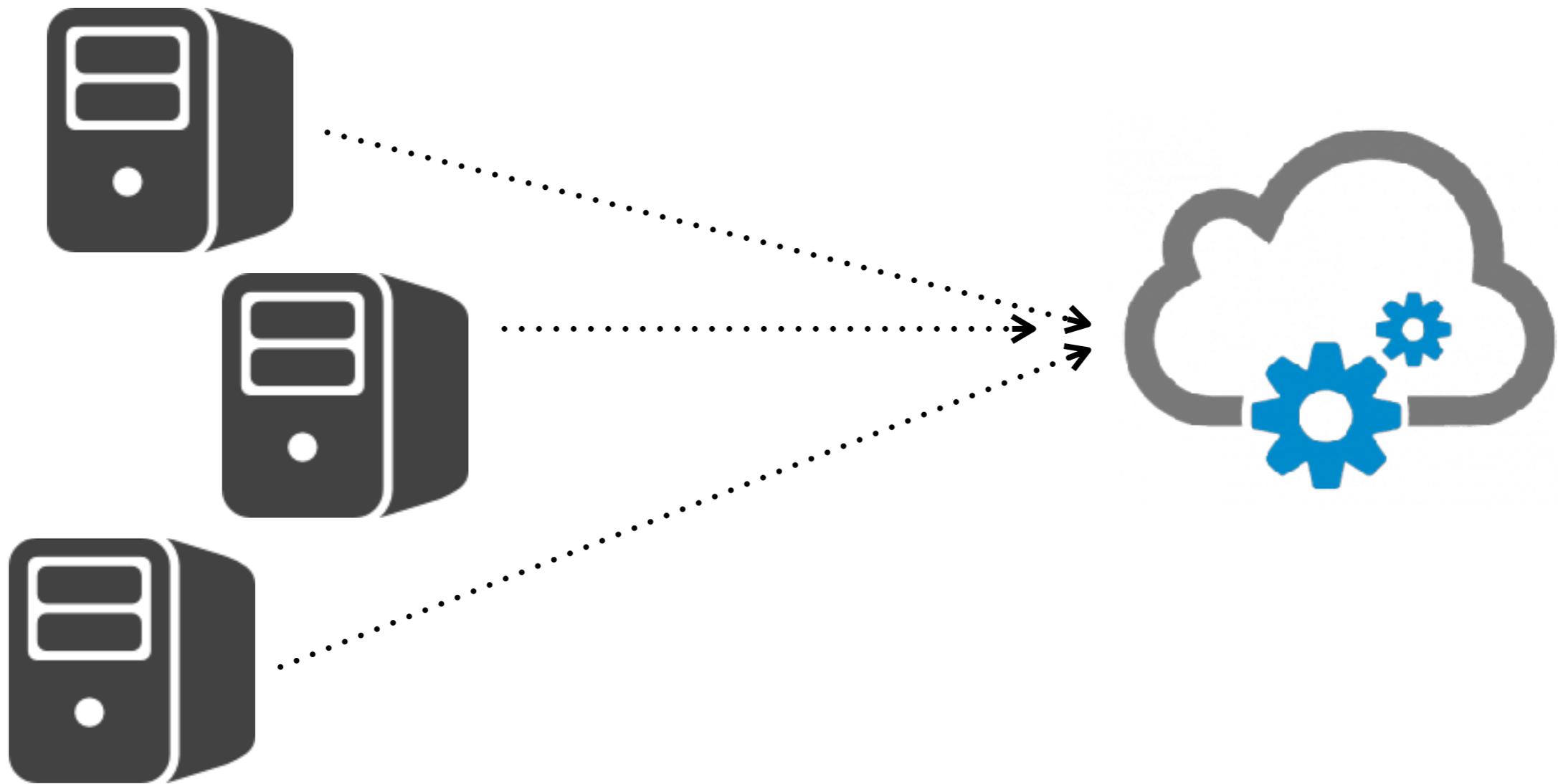
Modelo SaaS

Utilizar una instancia de pruebas del servicio externo desplegado en un ambiente compartido para cada despliegue o para cada compilación exitosa.

Modelo SaaS

Utilizar una instancia de pruebas del servicio externo desplegado en un ambiente compartido para cada despliegue o para cada compilación exitosa.

Modelo SaaS



Utilizar una instancia de pruebas del servicio externo desplegado en un ambiente compartido para cada despliegue o para cada compilación exitosa.

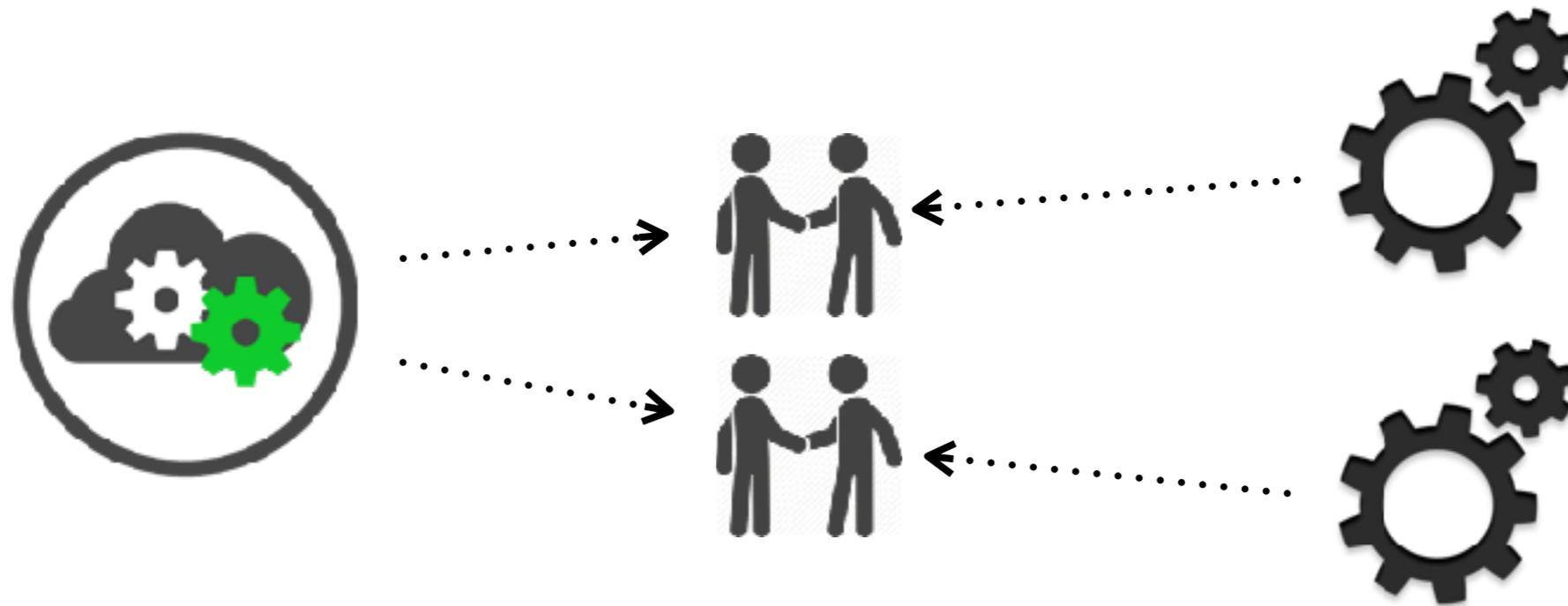
Pruebas de contrato guiadas por el consumidor

Establecer un contrato entre el productor y el consumidor. Hacer cumplir estos contratos con pruebas automatizadas.

Pruebas de contrato guiadas por el consumidor

*Establecer un contrato entre el productor y el
consumidor. Hacer cumplir estos contratos con pruebas
automatizadas.*

Pruebas de contrato guiadas por el consumidor



*Establecer un contrato entre el productor y el
consumidor. Hacer cumplir estos contratos con pruebas
automatizadas.*

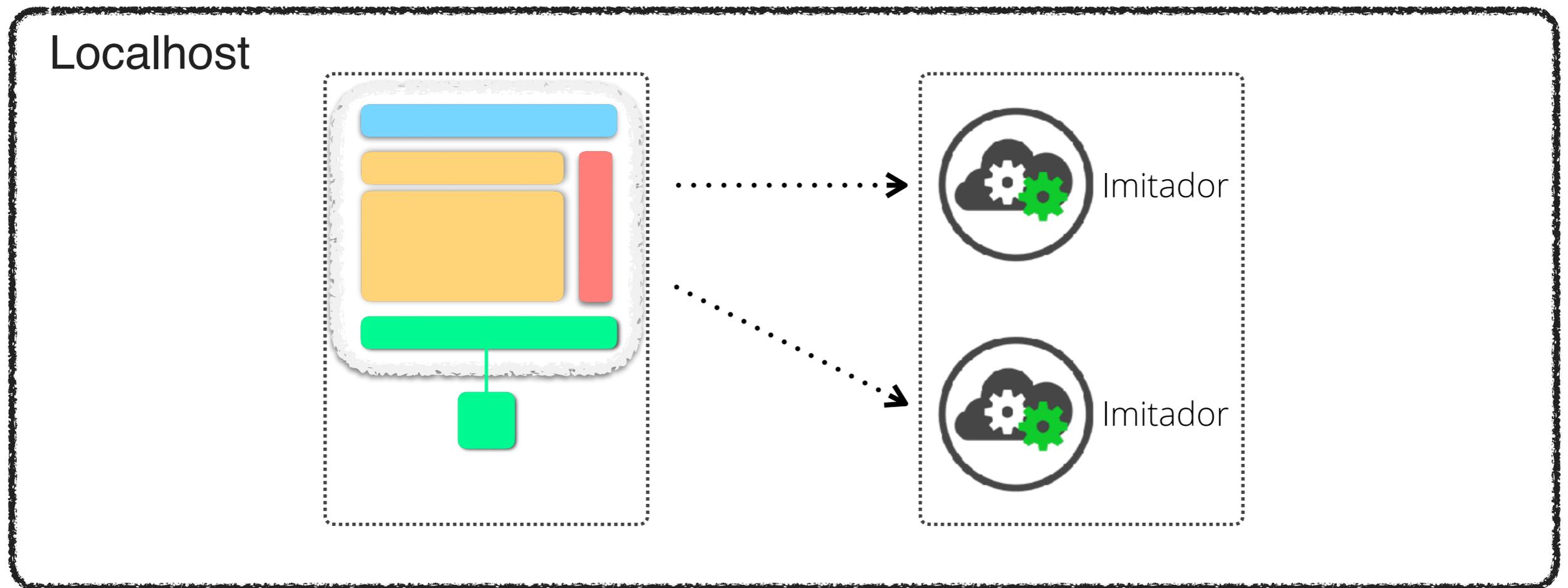
Imitadores guiados por el consumidor

Crea imitadores de tus servicios externos. Si quieres mayor seguridad, agrega pruebas de contrato.

Imitadores guiados por el consumidor

Crea imitadores de tus servicios externos. Si quieres mayor seguridad, agrega pruebas de contrato.

Imitadores guiados por el consumidor



Crea imitadores de tus servicios externos. Si quieres mayor seguridad, agrega pruebas de contrato.



HERRAMIENTAS

Algunas herramientas para la creación de imitadores de servicios web

MOUNTEBANK

<http://www.mbtest.org/>

MOUNTEBANK

<http://www.mbtest.org/>

WIEMOCK

<http://wiremock.org/>

MOUNTEBANK

<http://www.mbtest.org/>

WIEMOCK

<http://wiremock.org/>

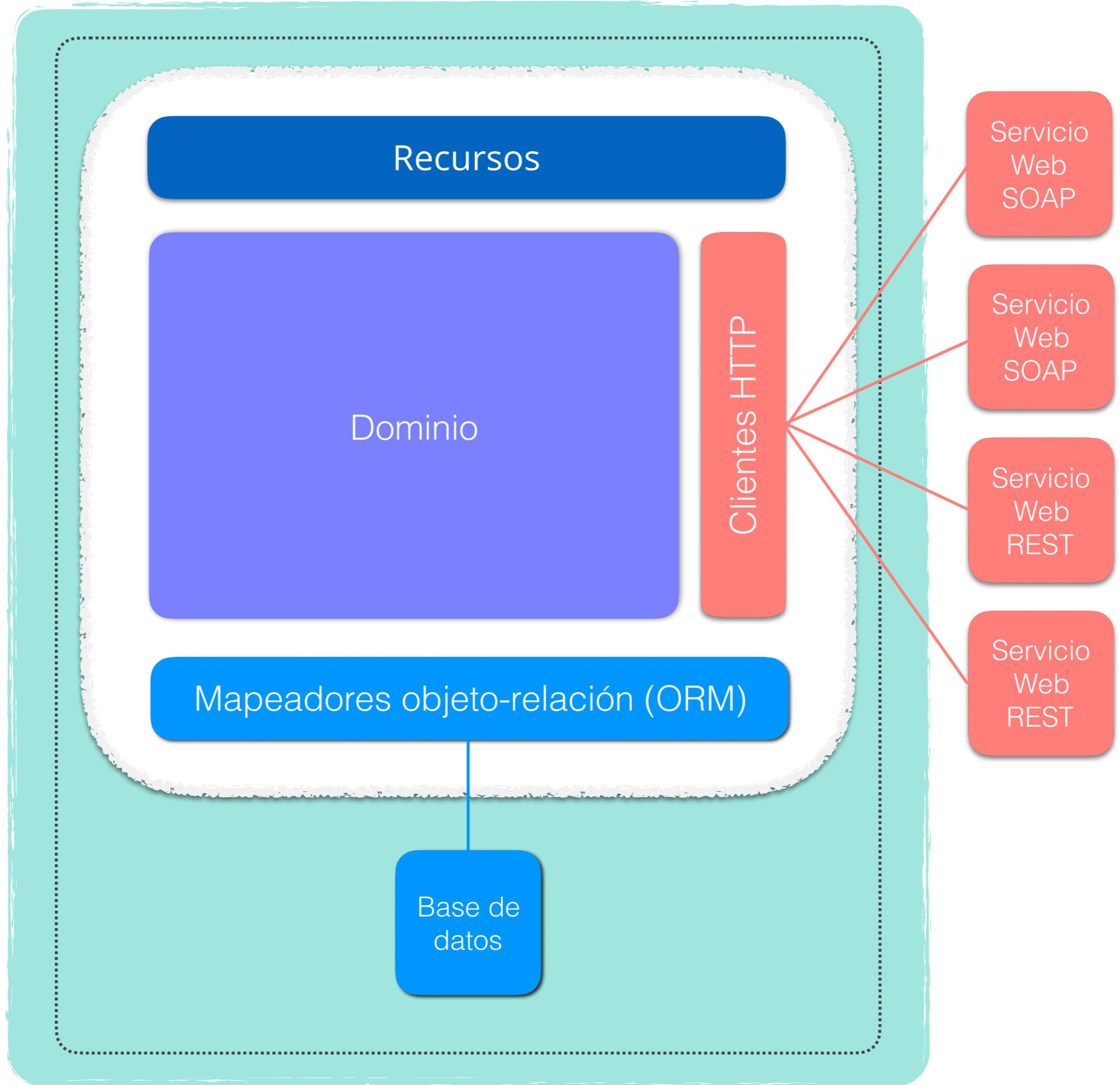
STUBBY4X

<https://github.com/azagniotov/stubby4x>



Y VIVIMOS FELICES POR SIEMPRE

Simulando servicios externos y agregando pruebas de contrato



Recursos

Dominio

Mapeadores objeto-relación (ORM)

Base de datos

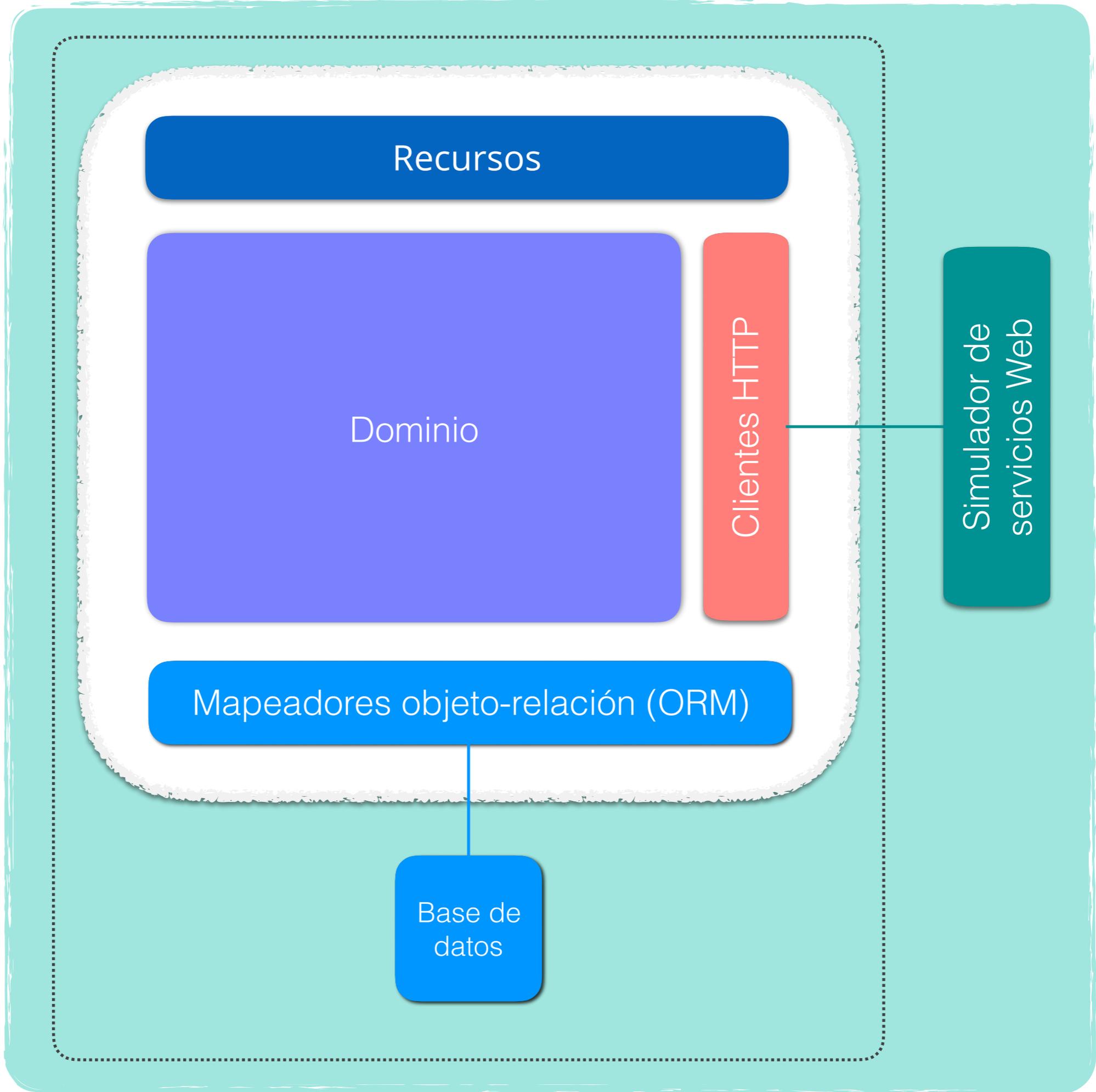
Clientes HTTP

Servicio Web SOAP

Servicio Web SOAP

Servicio Web REST

Servicio Web REST



Recursos

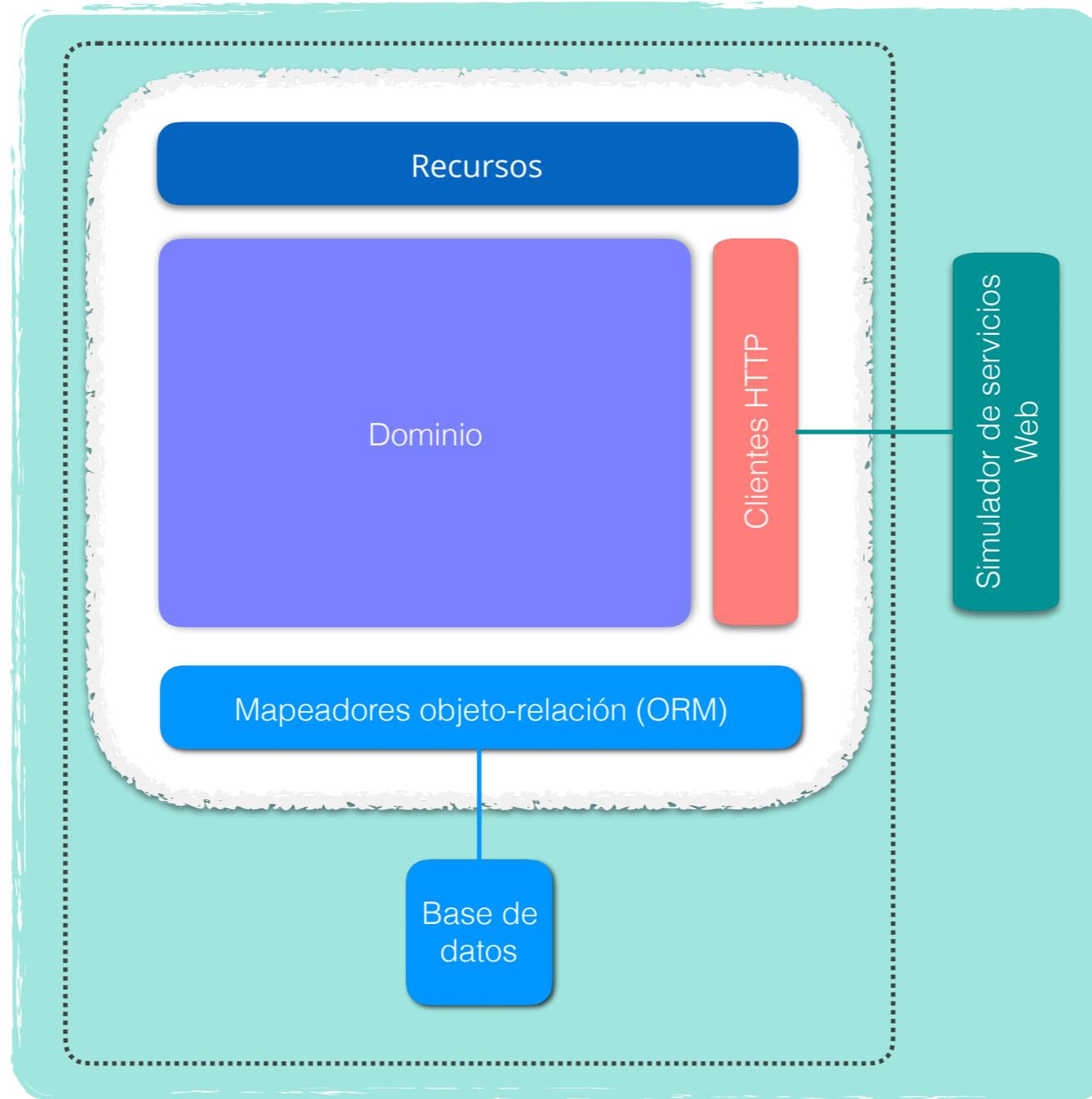
Dominio

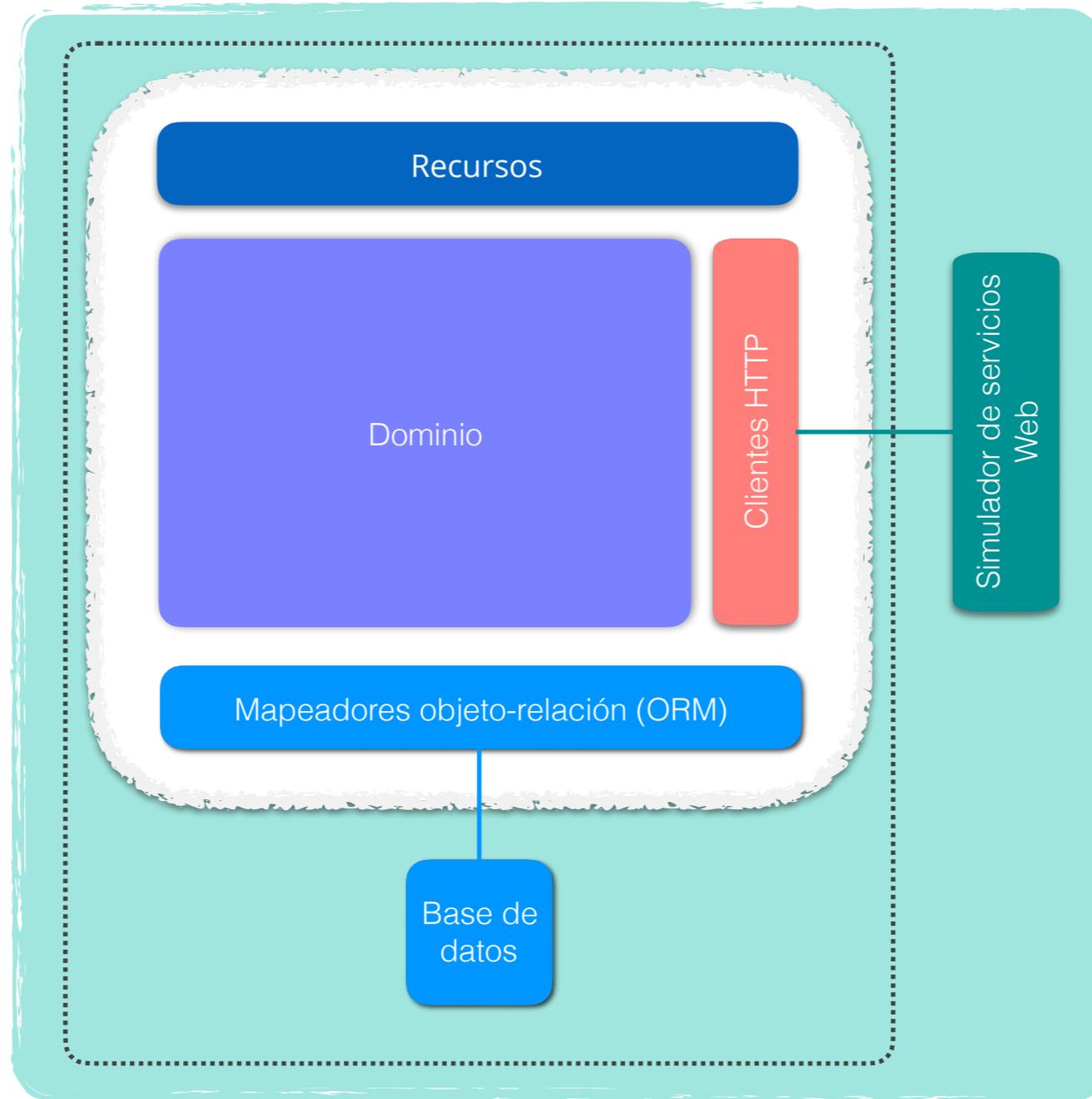
Clientes HTTP

Mapeadores objeto-relación (ORM)

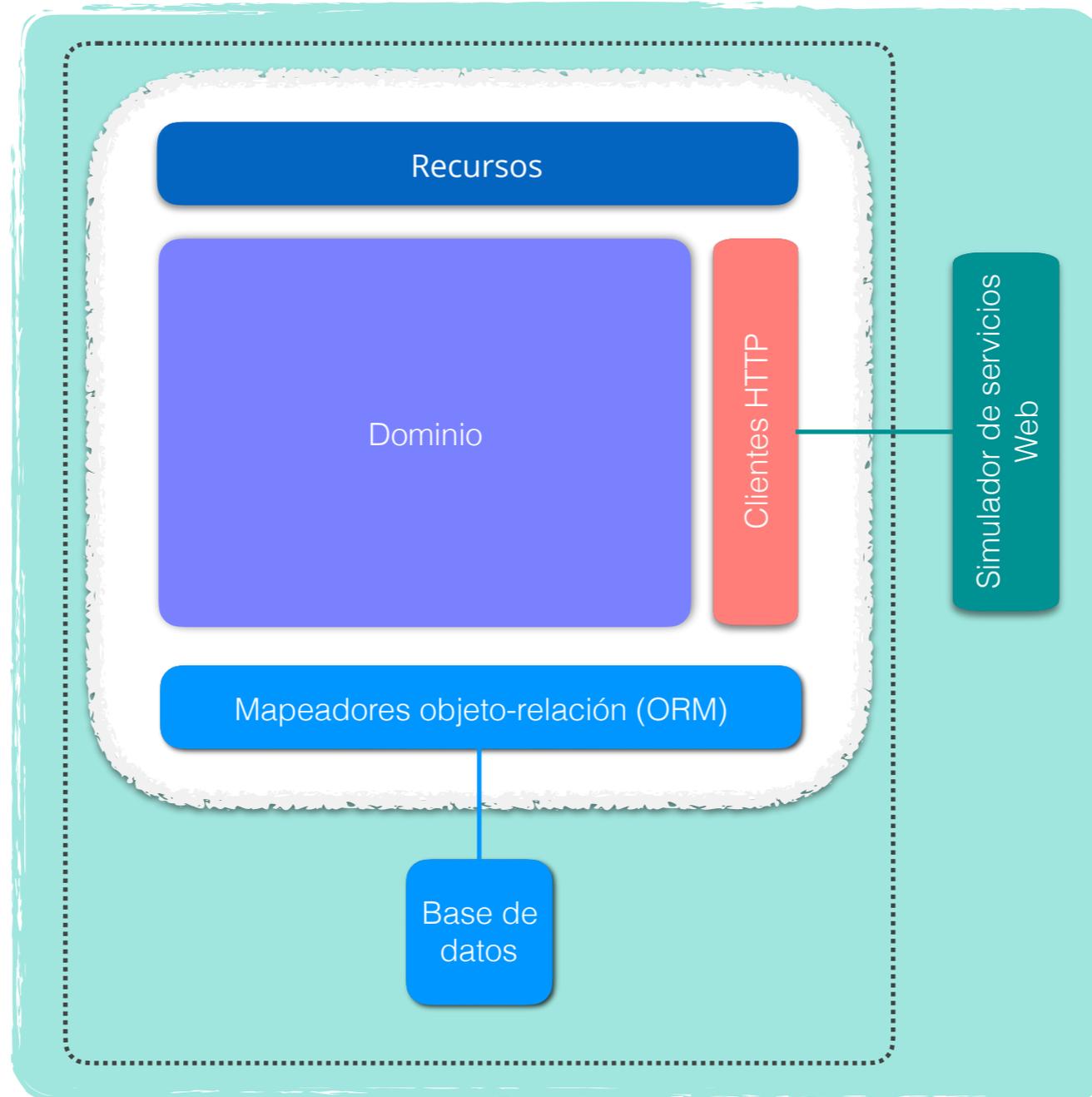
Base de datos

Simulador de servicios Web



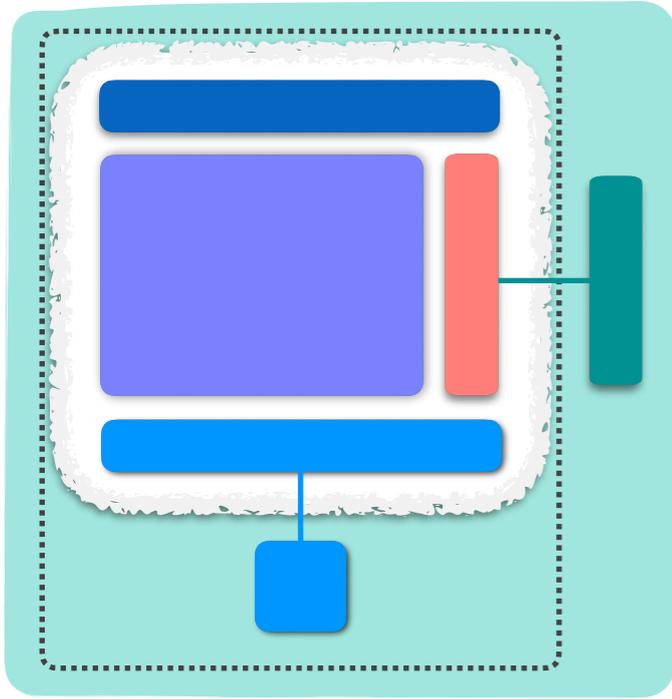


Pipeline



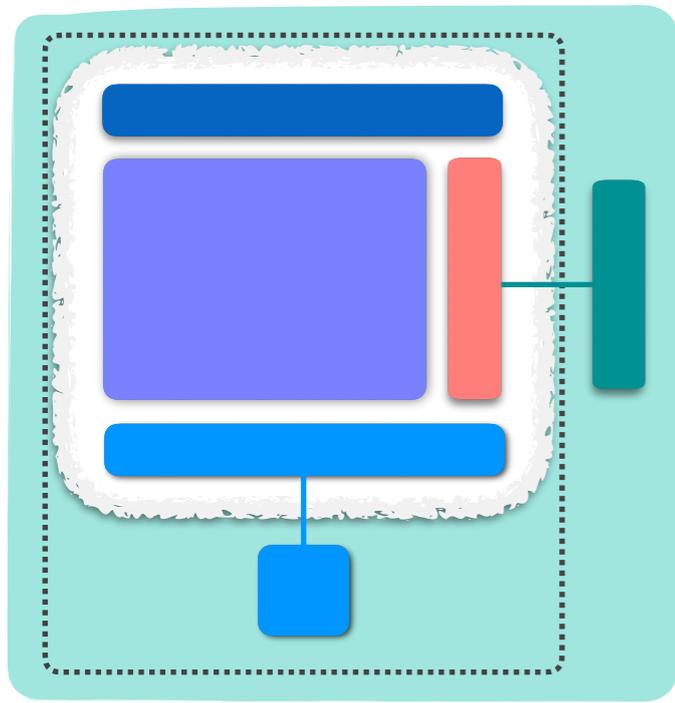
Pipeline

Pruebas
unitarias



Pipeline

Pruebas
unitarias



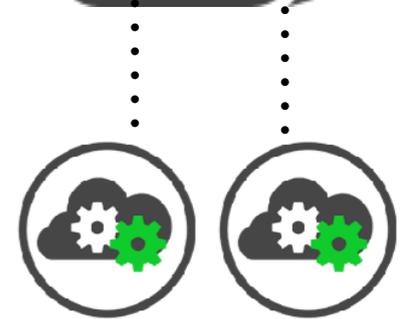
Qa



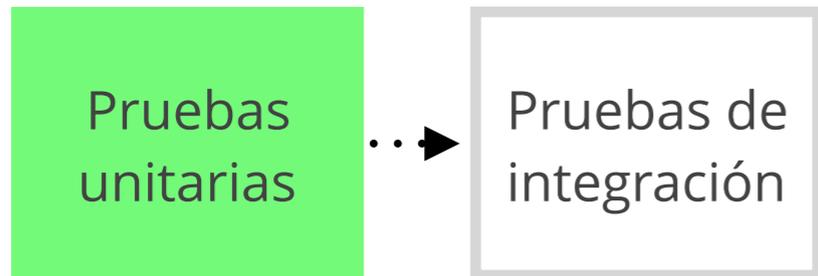
Pre-prod

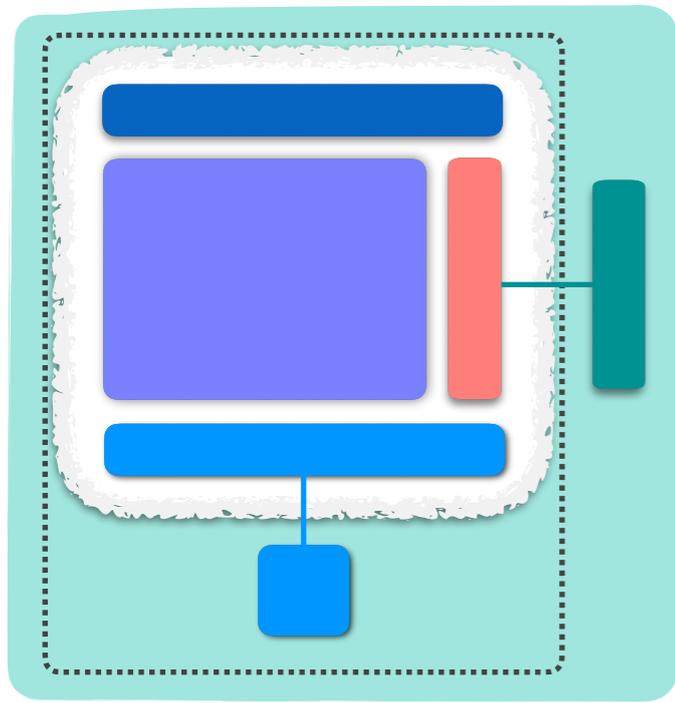


Prod



Pipeline





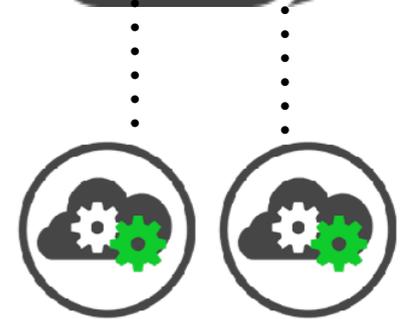
Qa



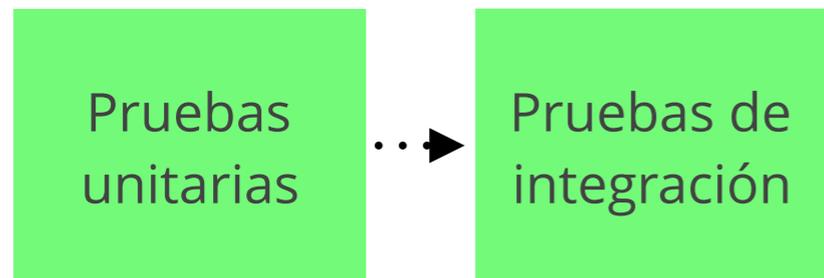
Pre-prod

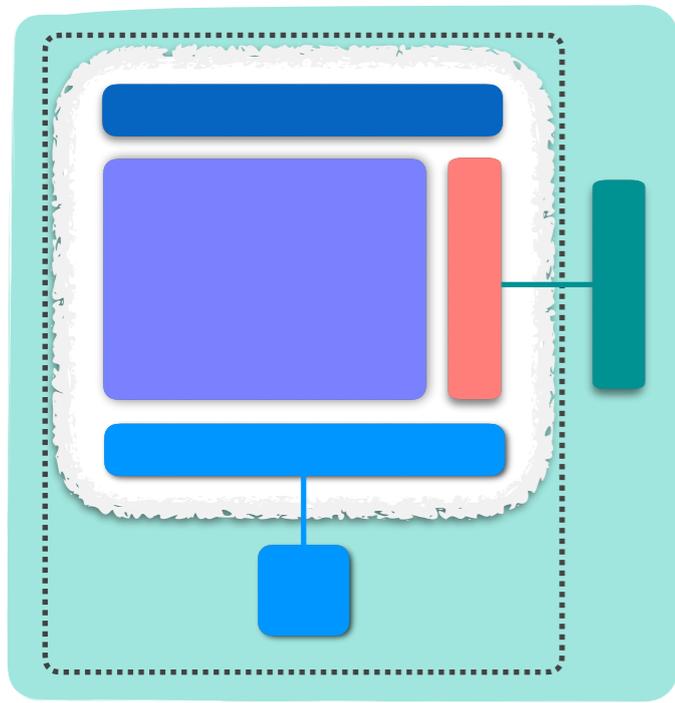


Prod



Pipeline





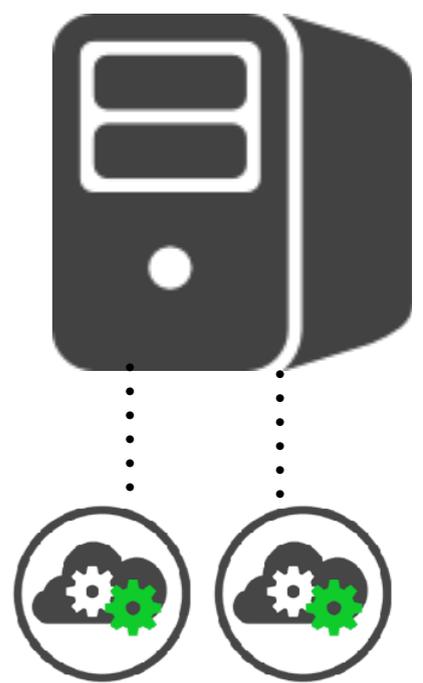
Qa



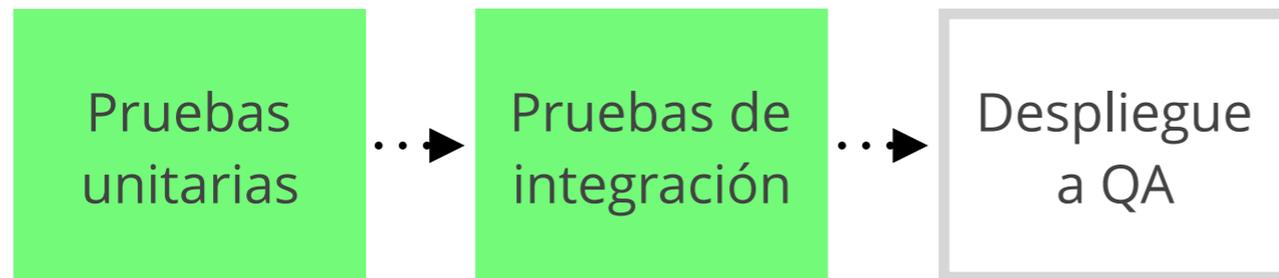
Pre-prod

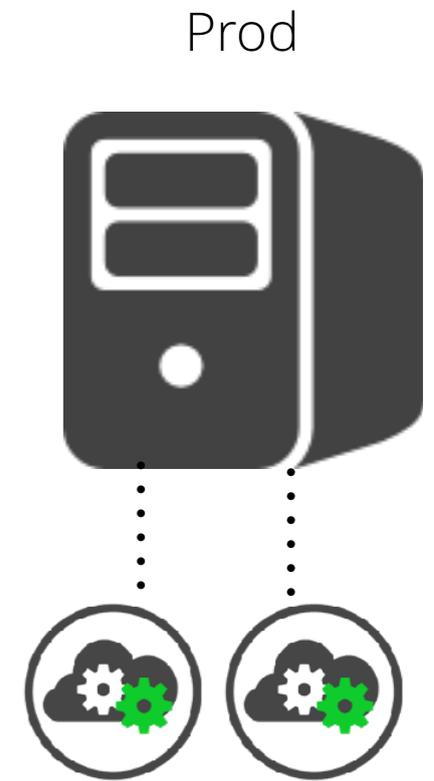
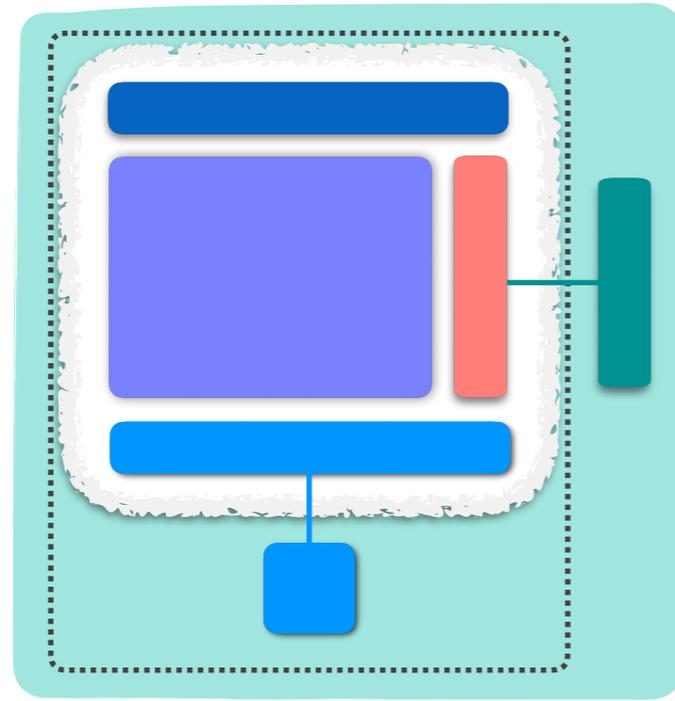


Prod

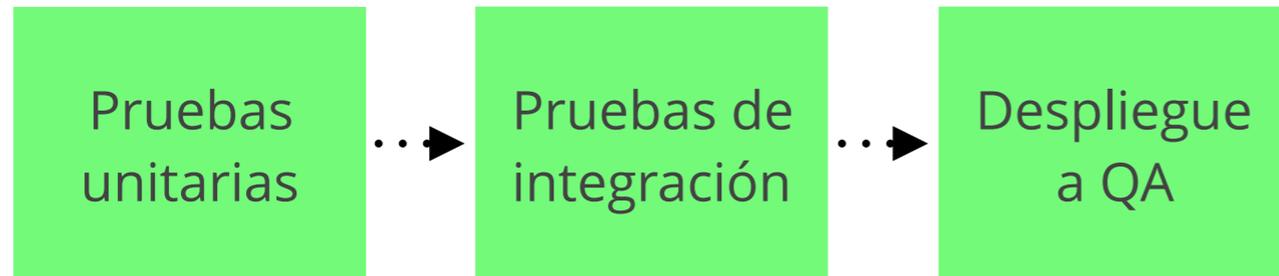


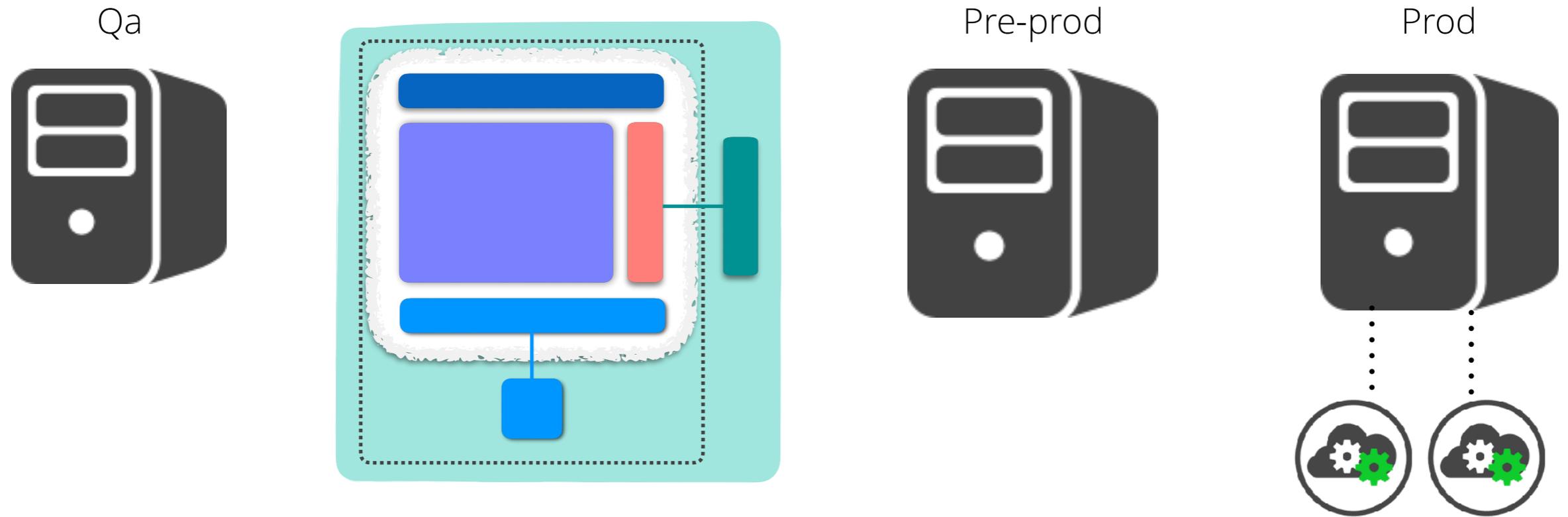
Pipeline



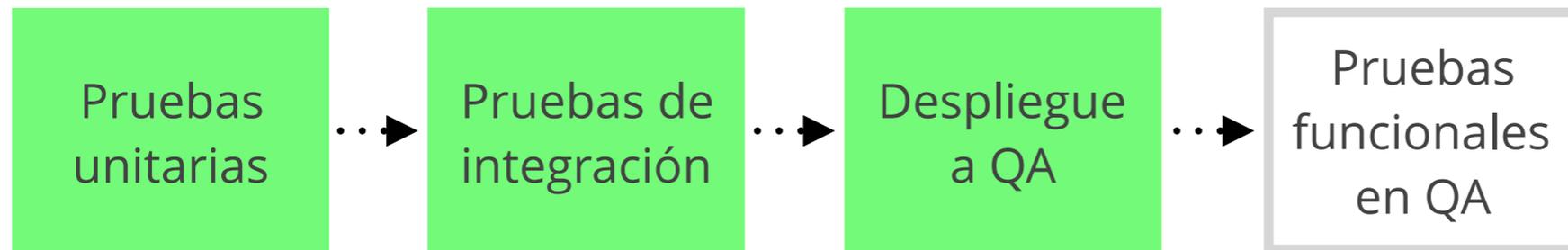


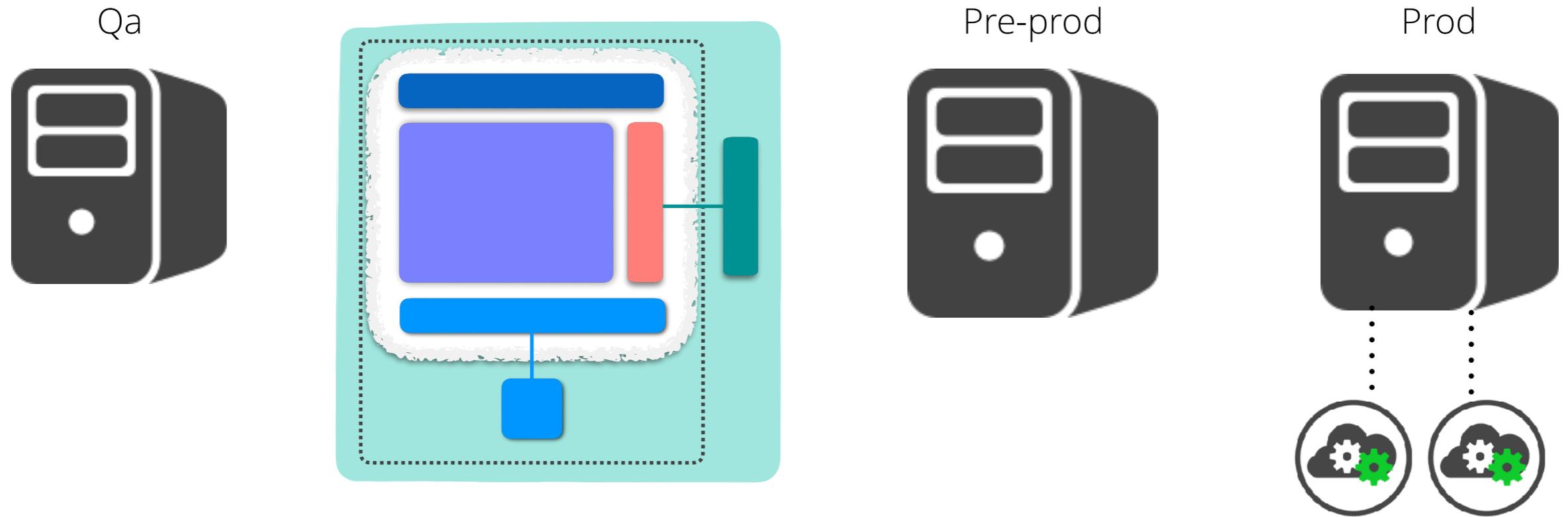
Pipeline



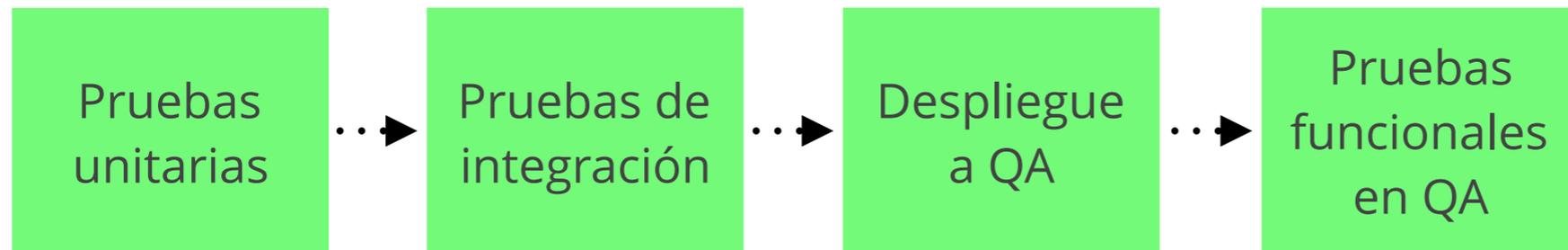


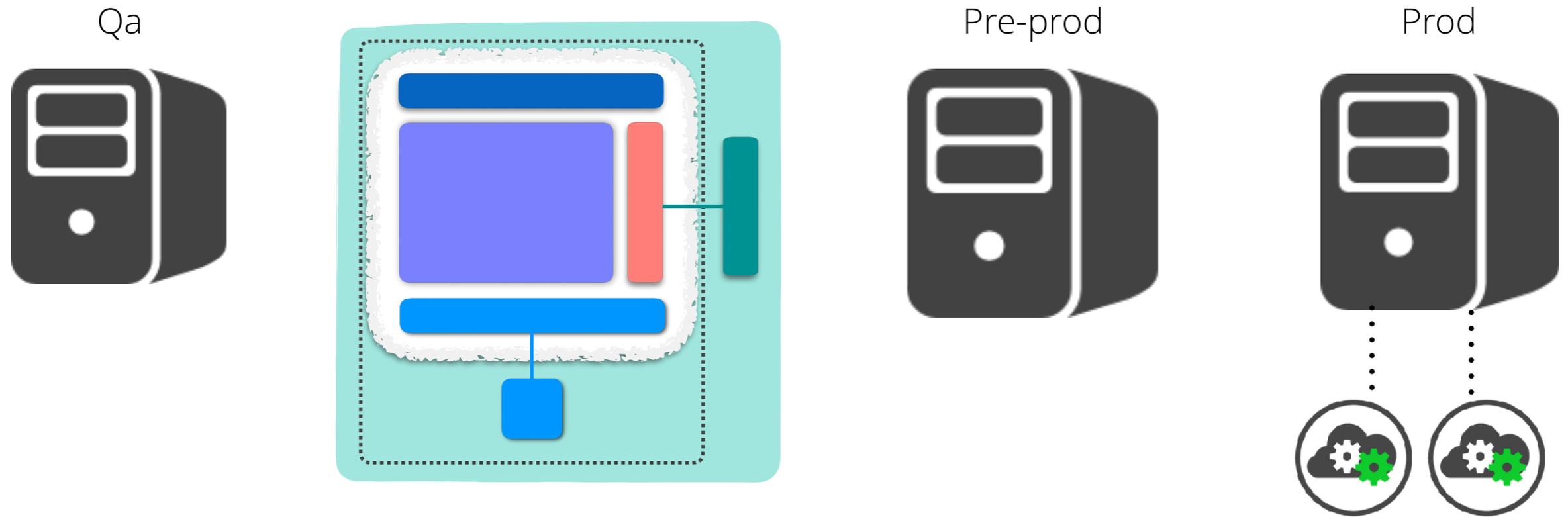
Pipeline



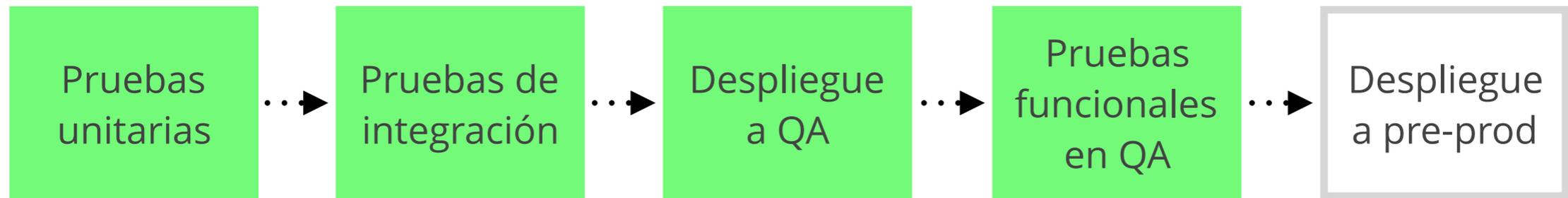


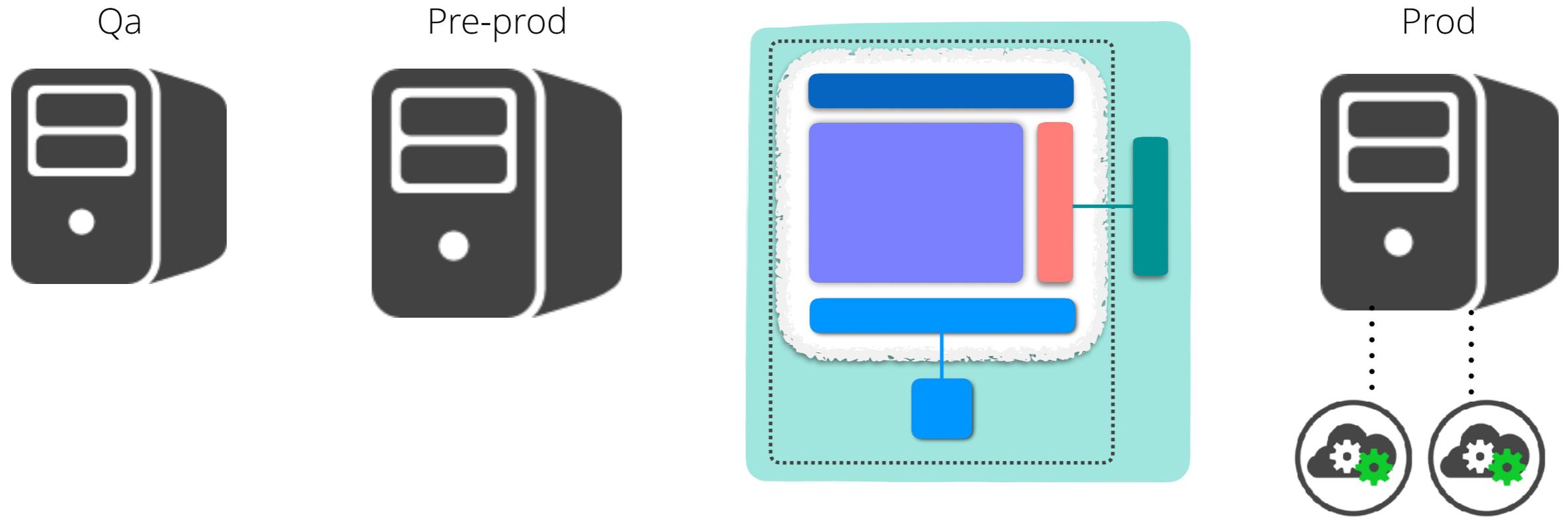
Pipeline





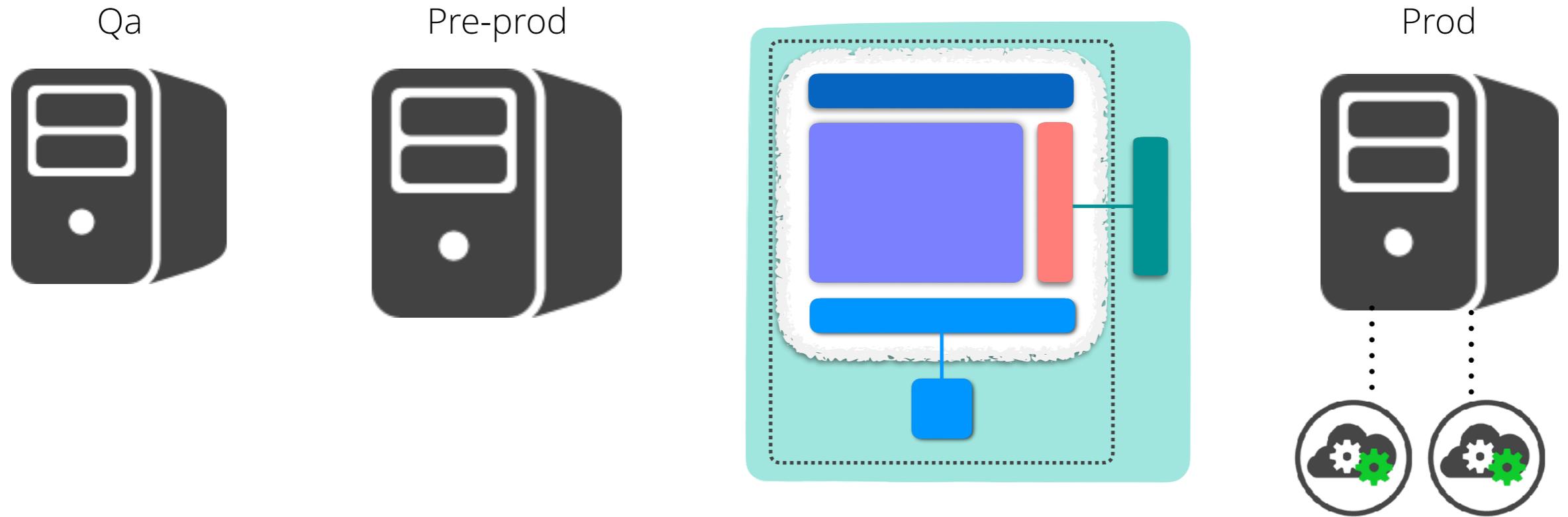
Pipeline



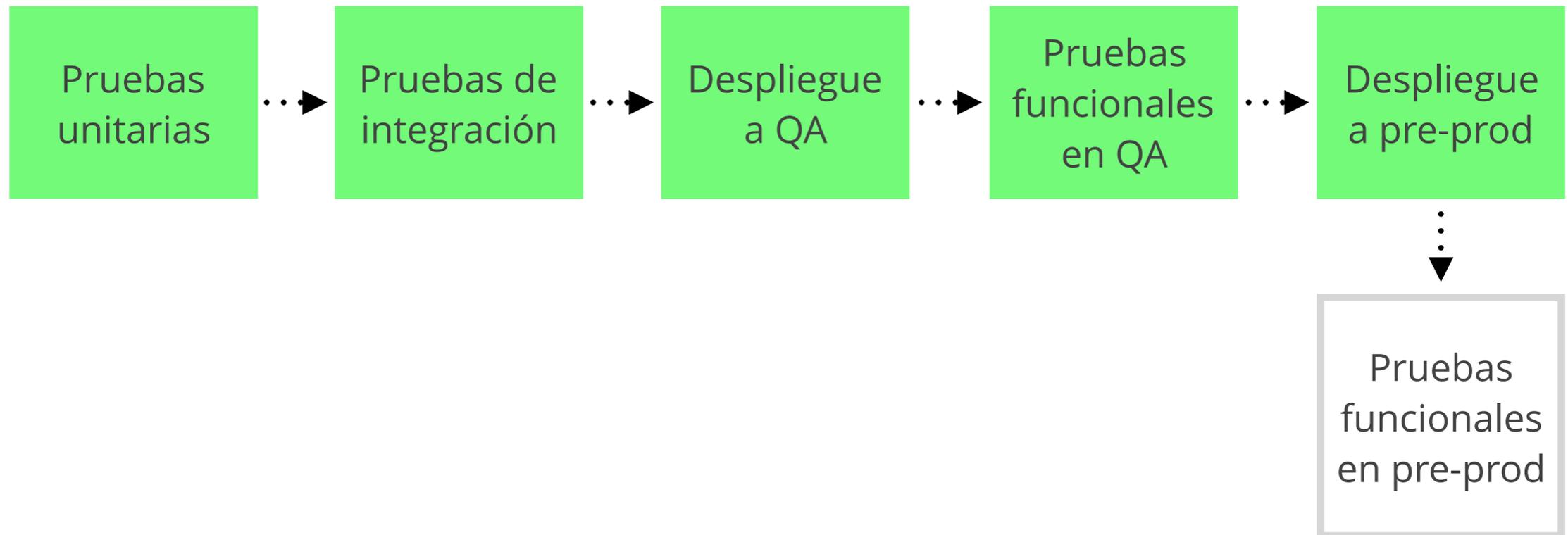


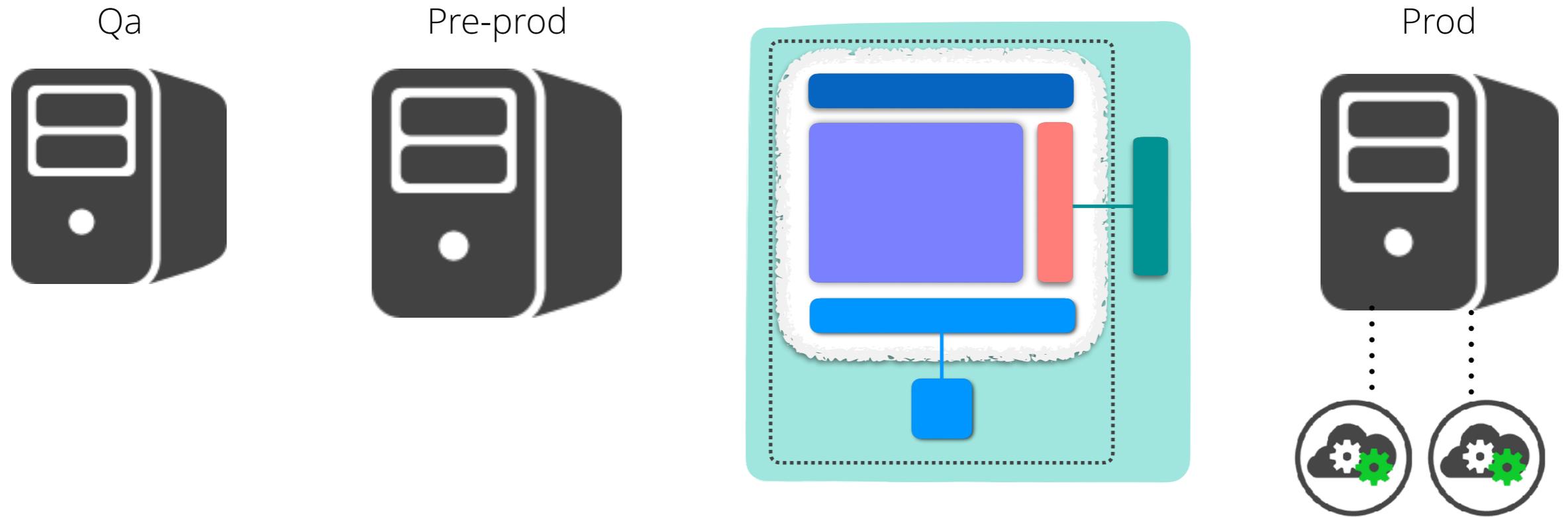
Pipeline



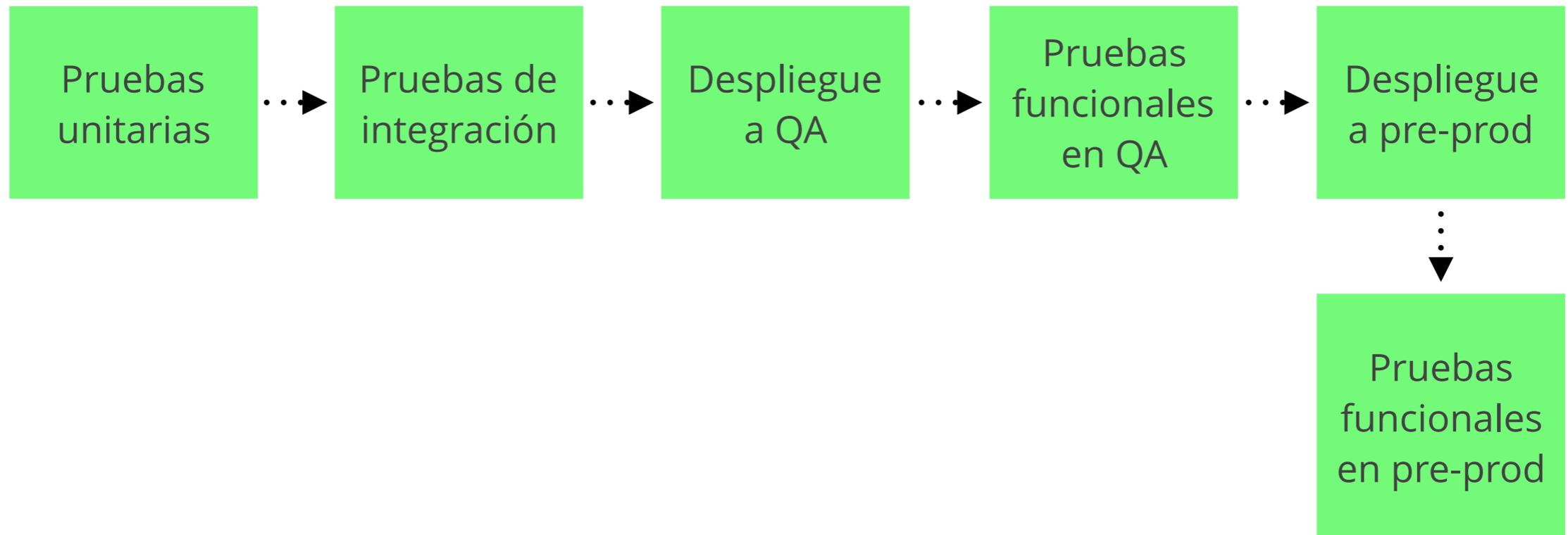


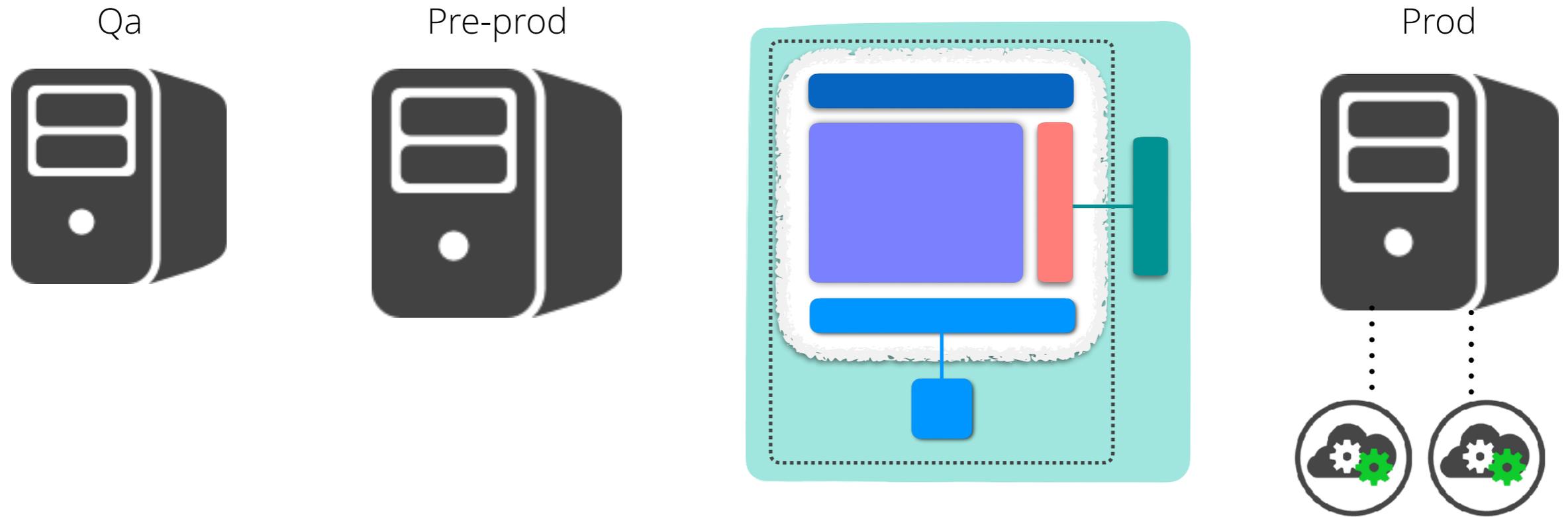
Pipeline



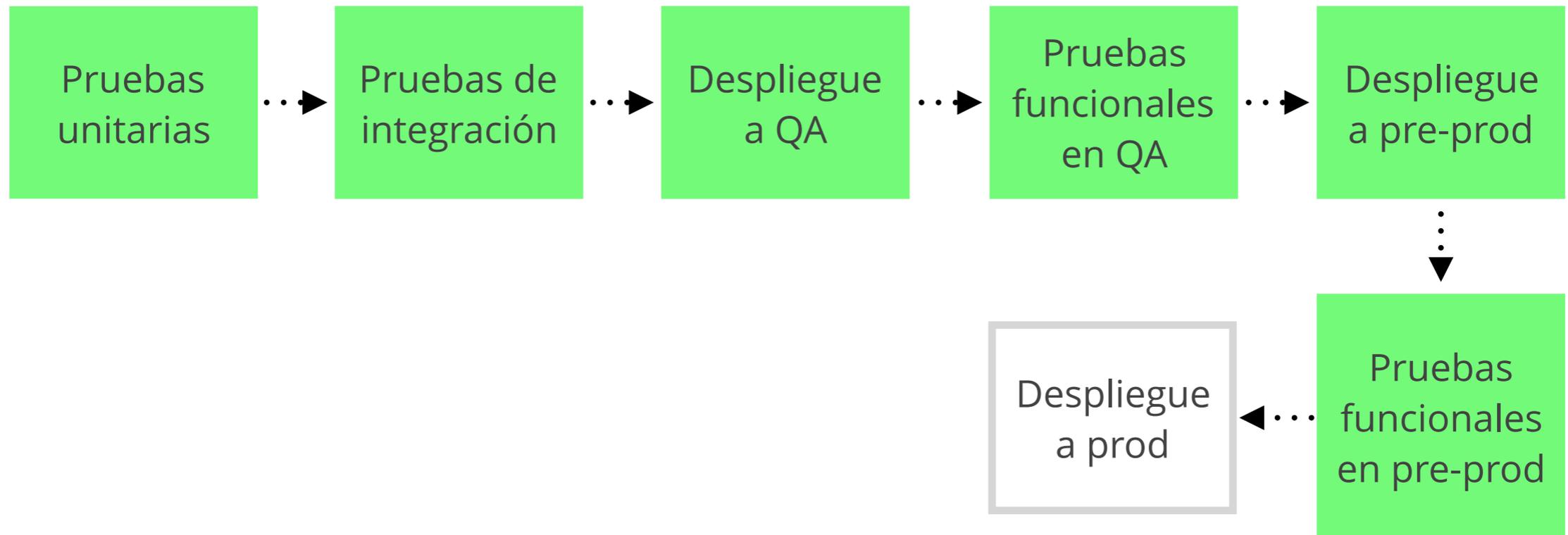


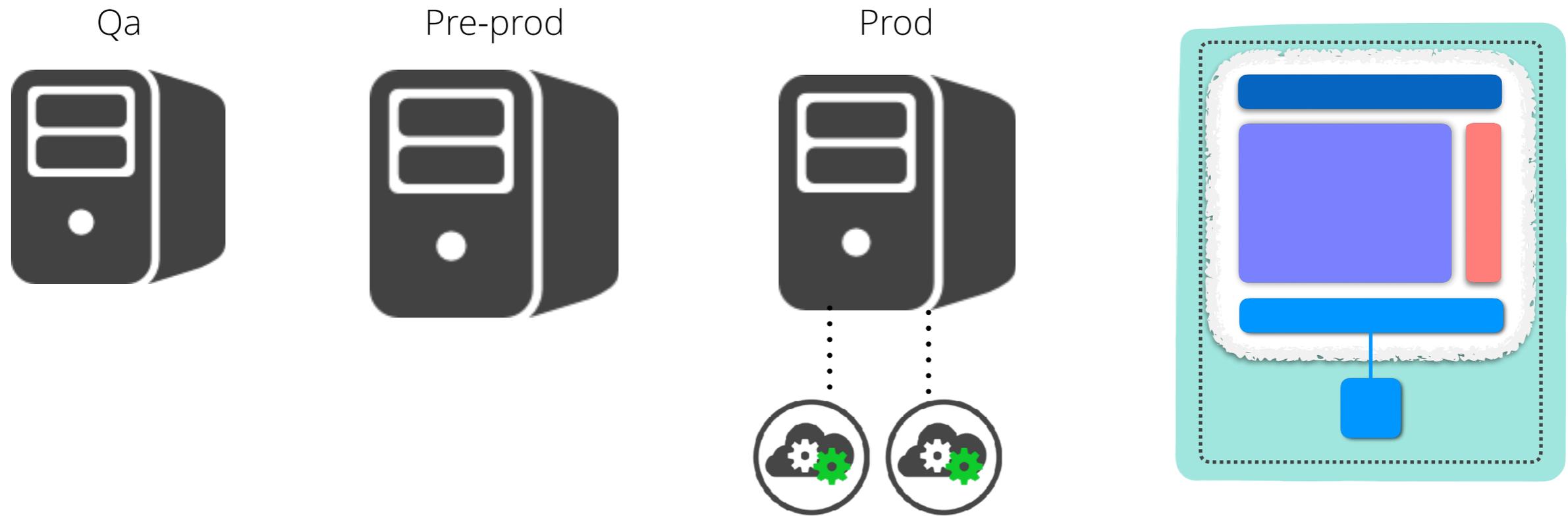
Pipeline



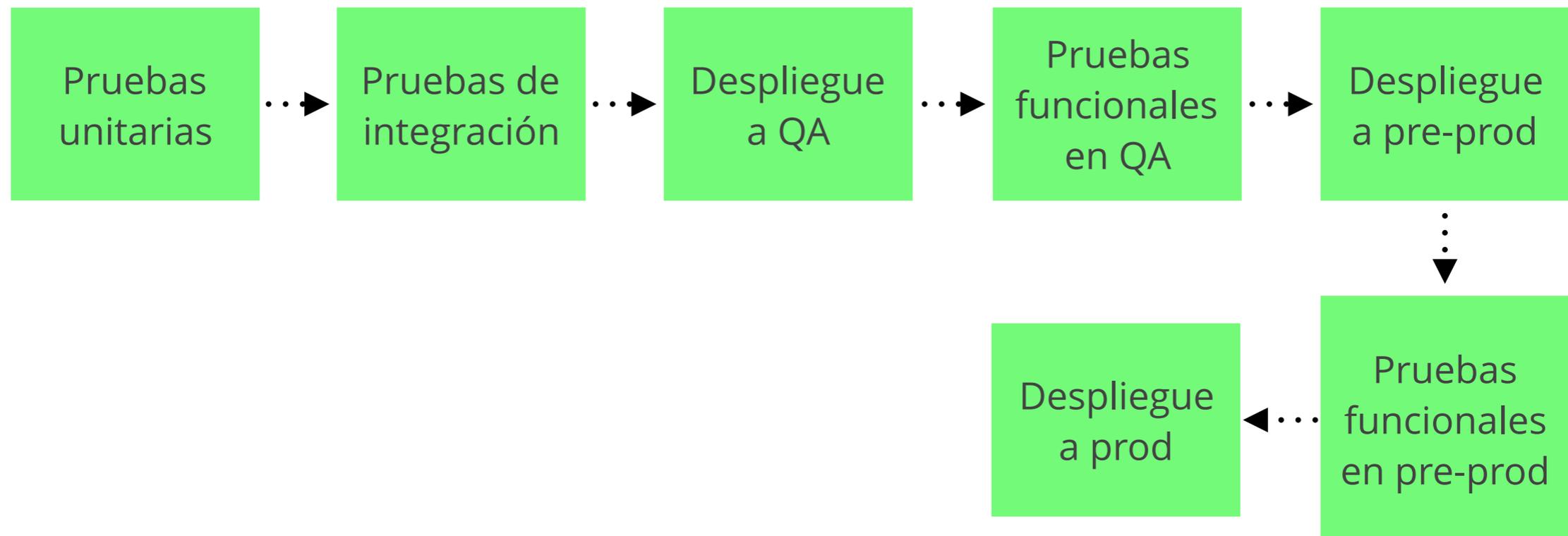


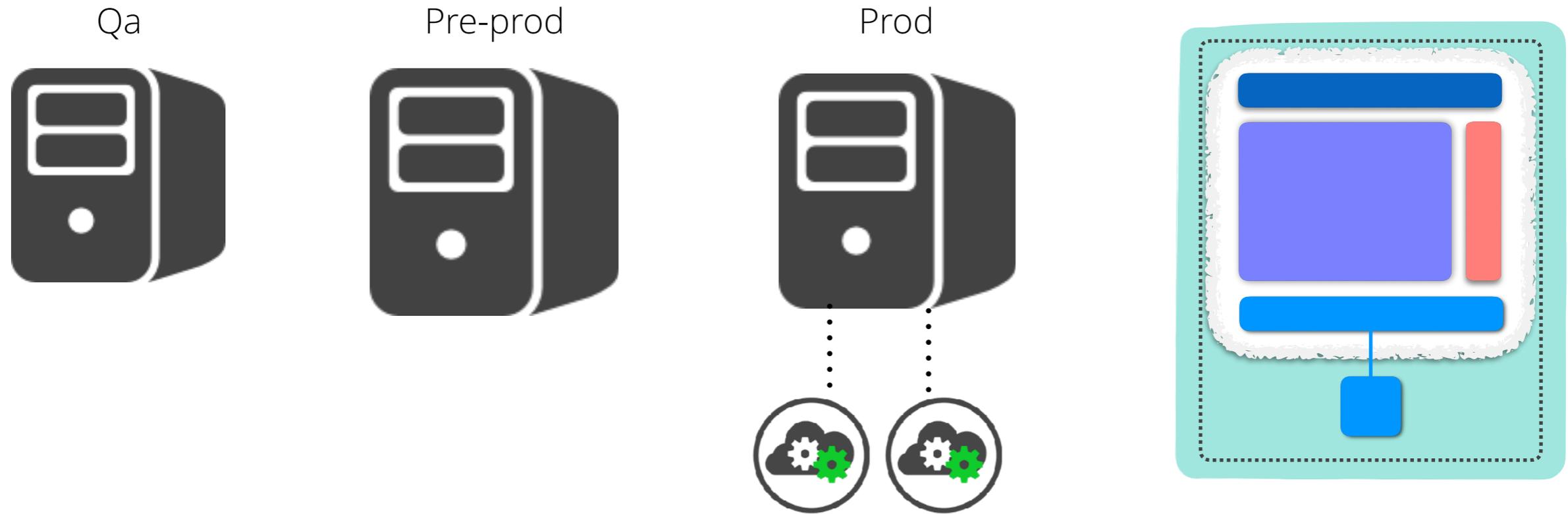
Pipeline



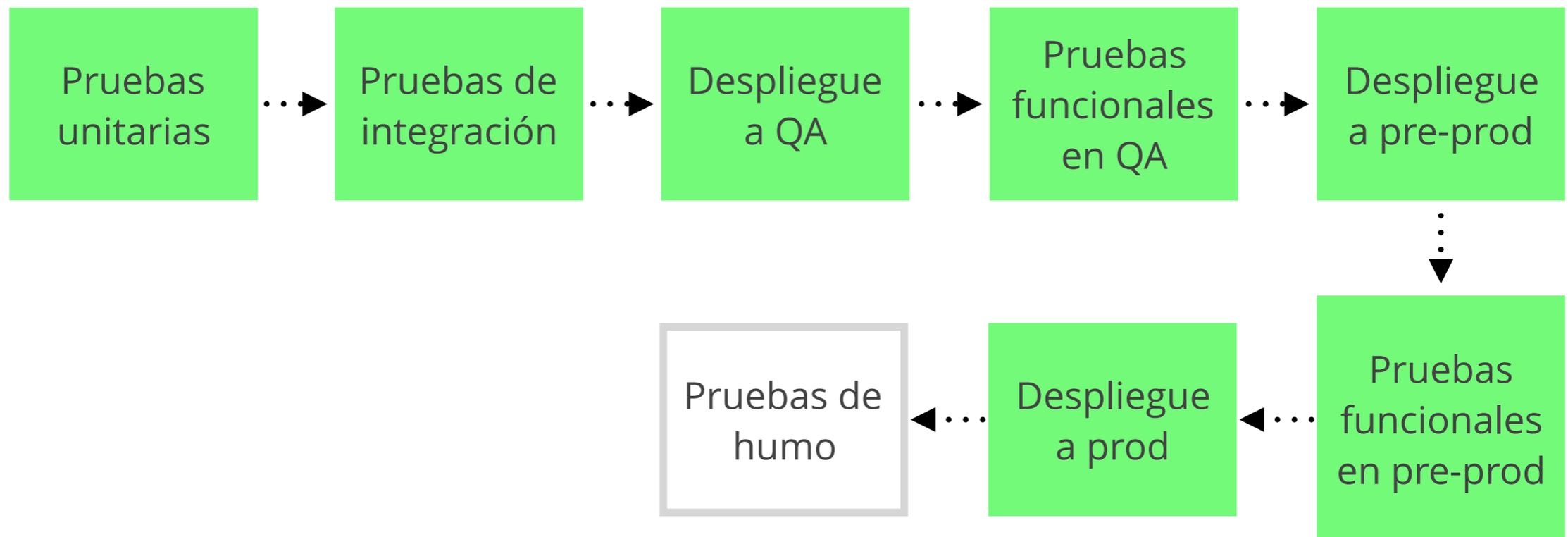


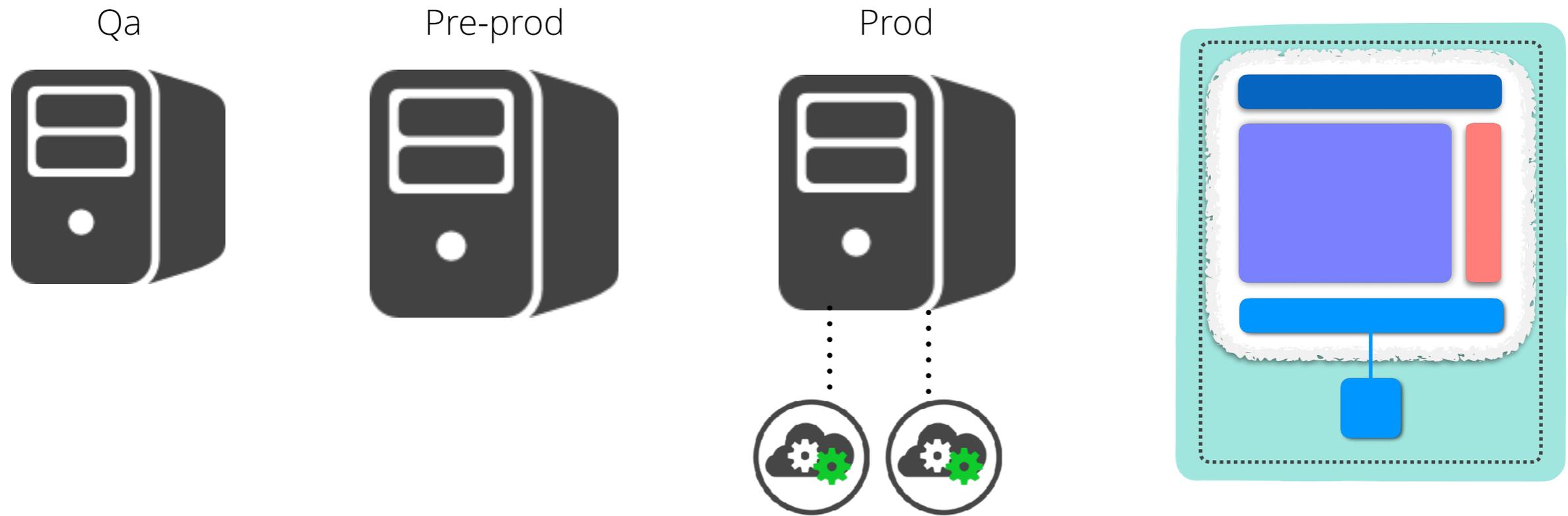
Pipeline



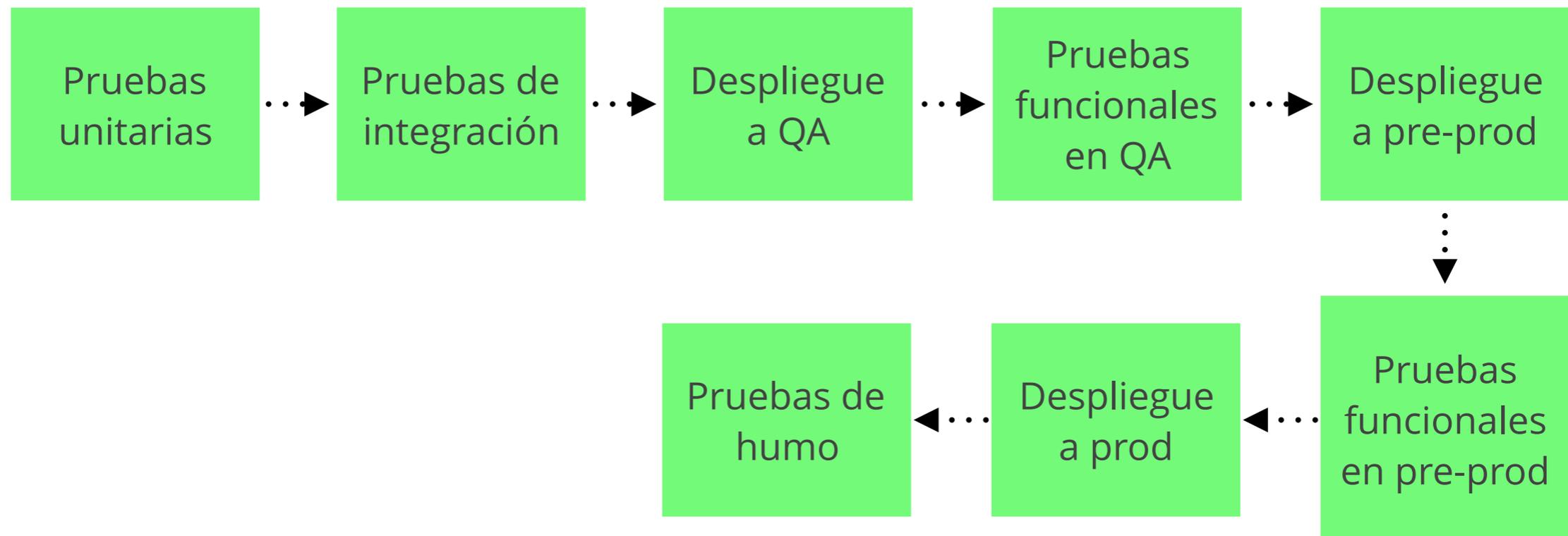


Pipeline





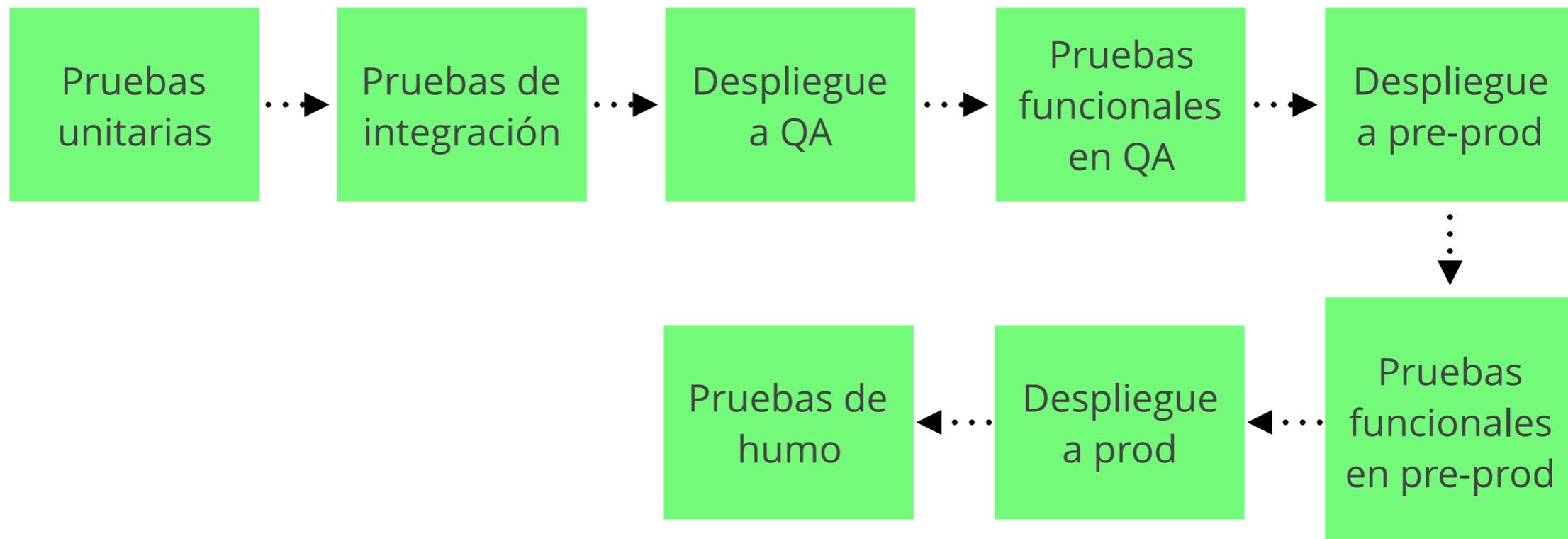
Pipeline



Ambientes Beta



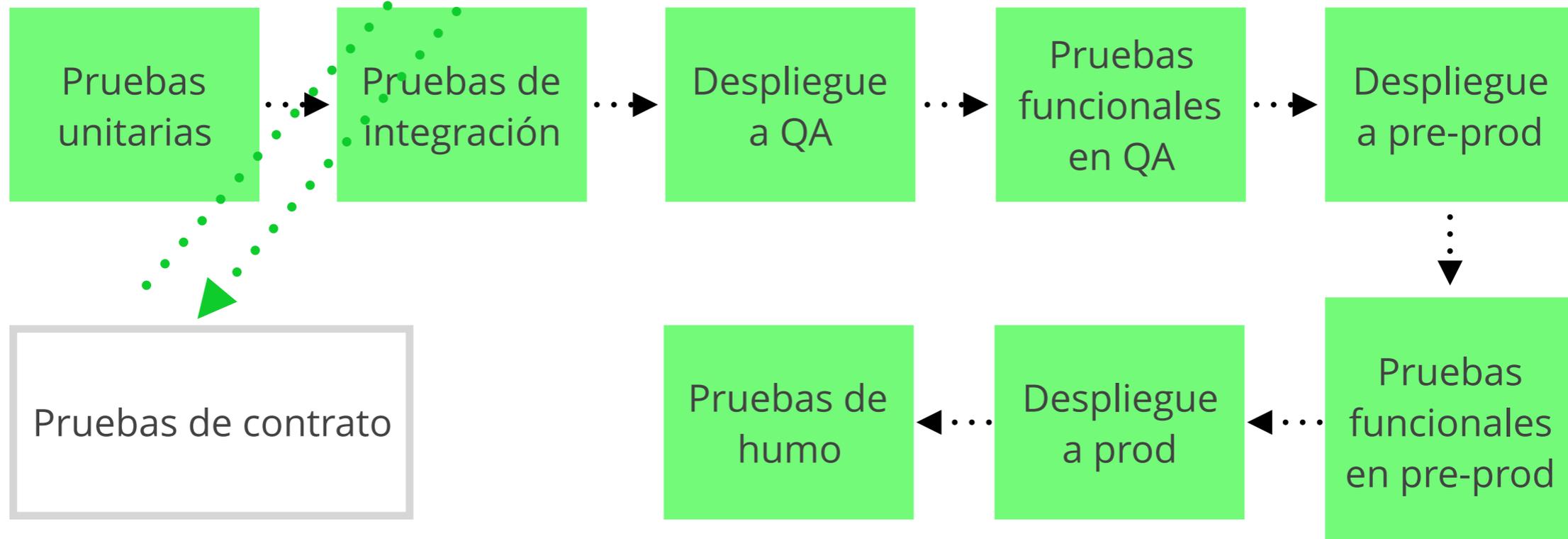
Pipeline



Ambientes Beta



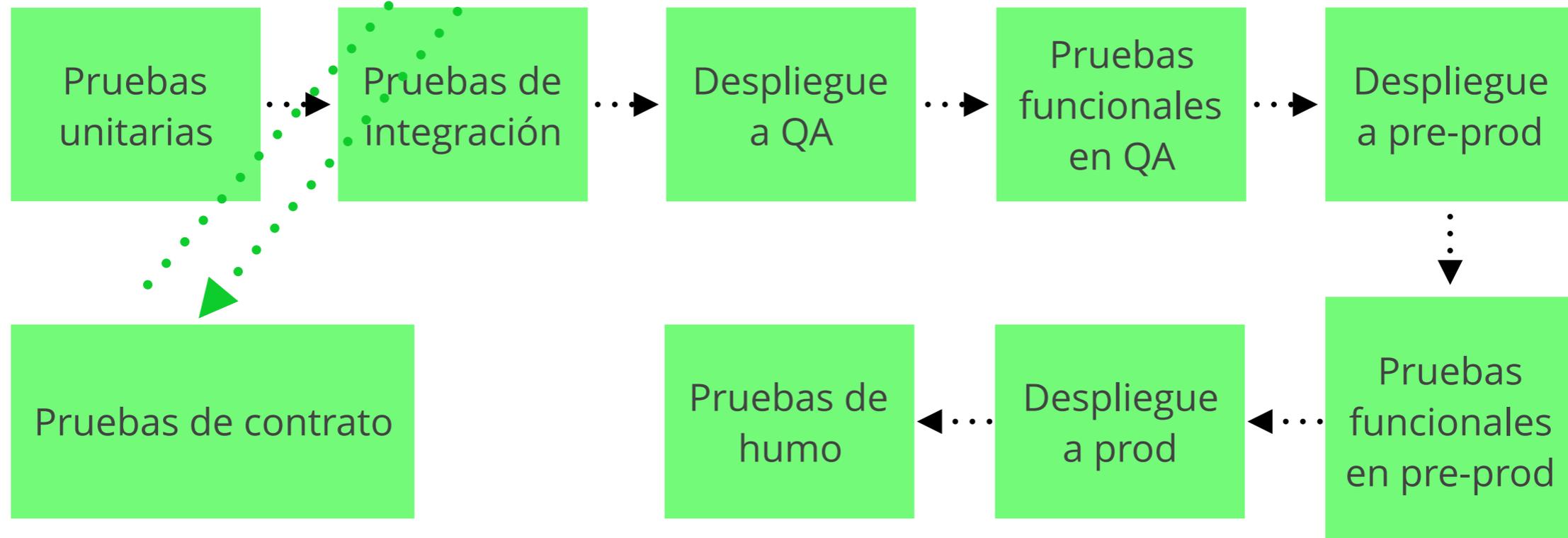
Pipeline



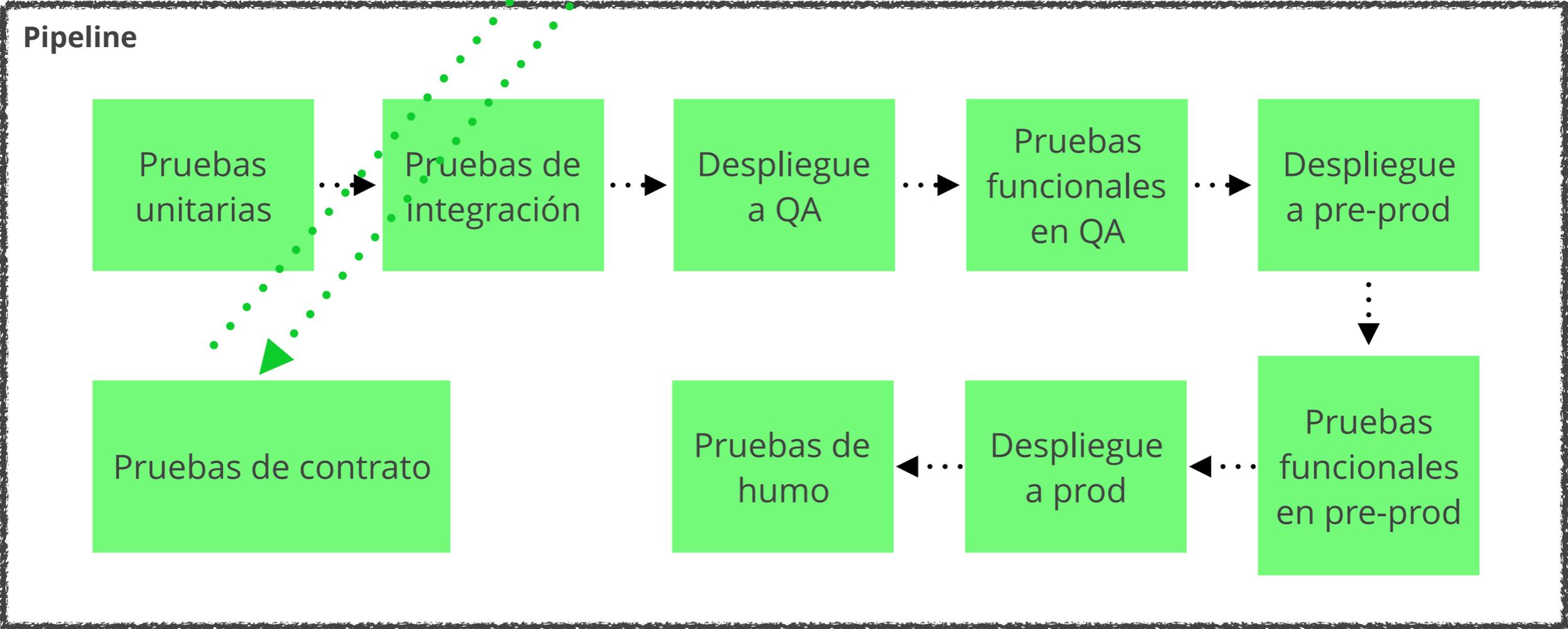
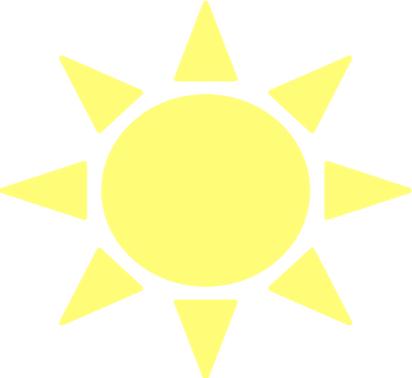
Ambientes Beta



Pipeline



Ambientes Beta



¡GRACIAS!

¿Preguntas o sugerencias?

Luisa Emme

@emmeblm

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<https://www.thoughtworks.com/careers>