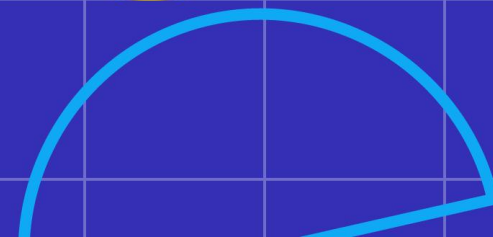
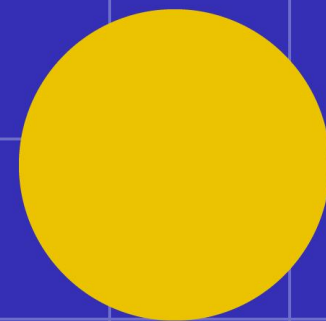
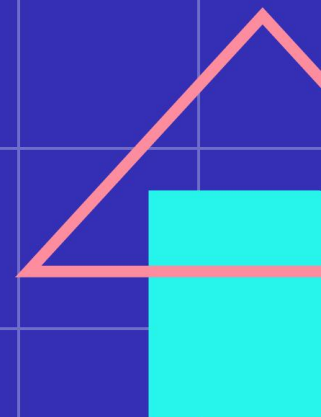


# LLM Practice In Development Scenario

杨航





常见开发业务流程



常见业务痛点



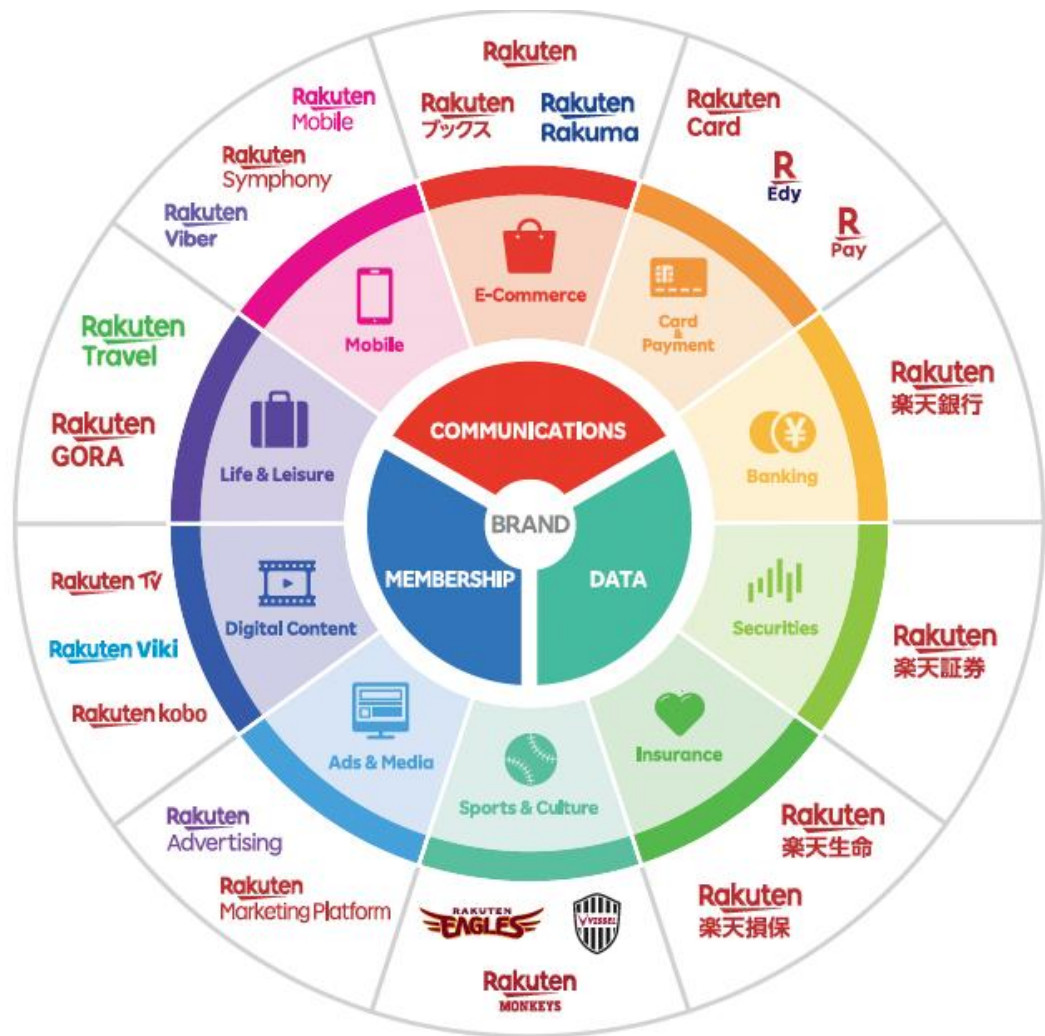
AI示例演示



系统架构



Q&A



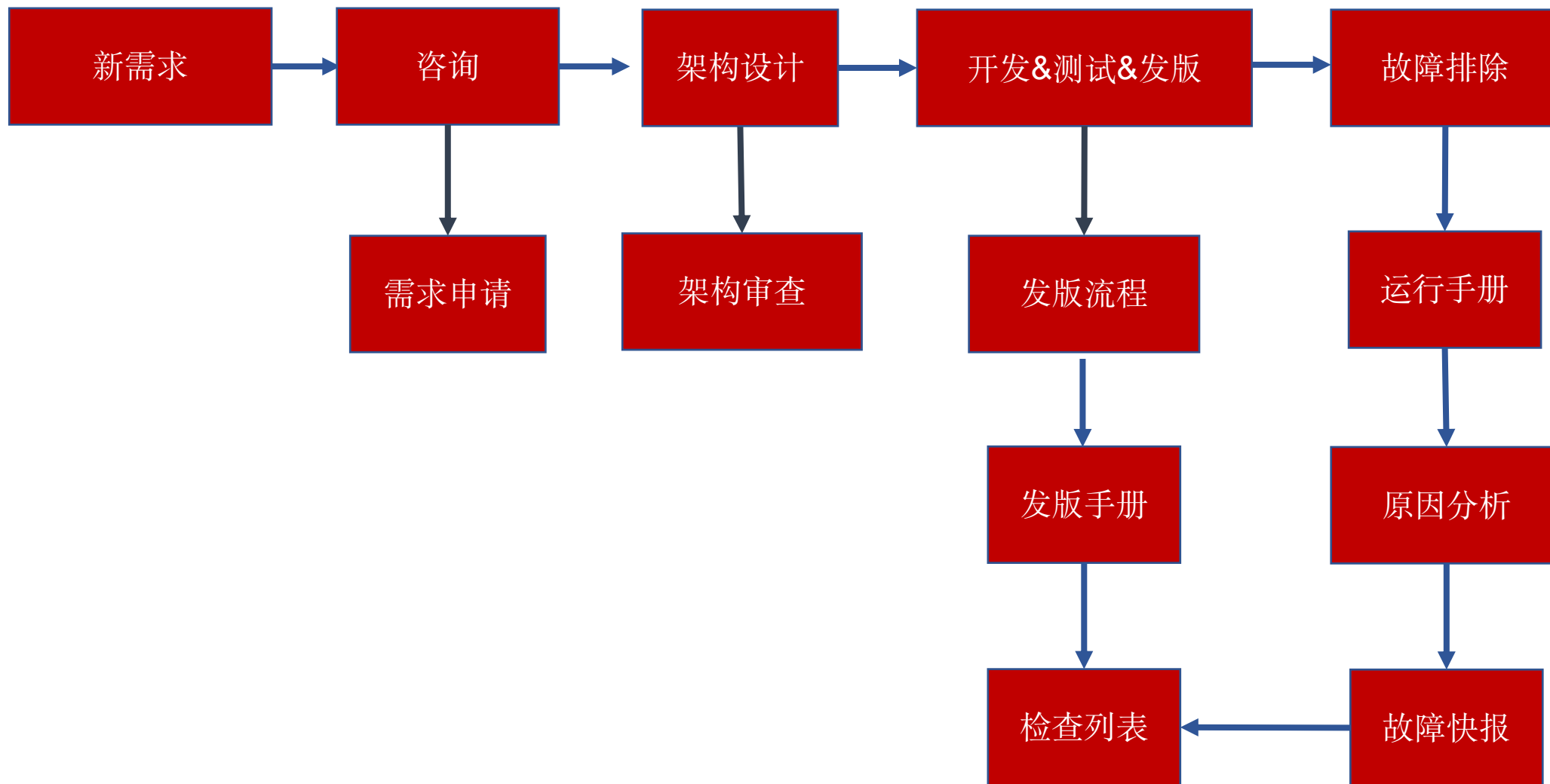
为全球**30**个国家和地区提供用户服务

Serving users worldwide through businesses based in **30** countries and regions

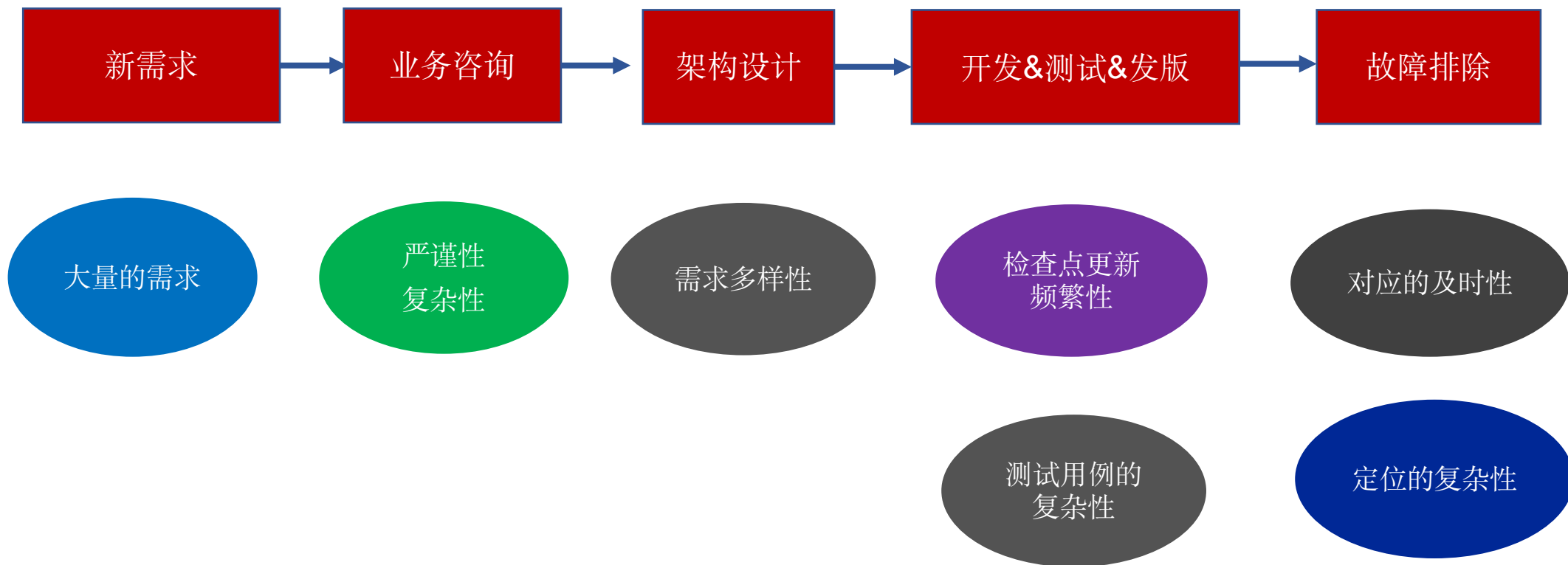
乐天集团在全球拥有 **70 + 种业务**和约 **18 亿**会

员 Rakuten Group has **70+** businesses and about **1.8 billion** members across the world.

# 常见开发业务流程



# 常见业务痛点





## 用户咨询

- 自动回复客户询问减轻大量咨询工作量
- 最大限度地减少不同咨询场景的投入
- 可通过已有流程规则文档 (PUML) 可通过理解业务流程图帮助用户理解并分析问题并生成测试用例

## 架构设计

- 迅速识别任何逻辑上的一致或冲突
- 及时验证实际场景的规则

## 流程管理

- 可以使用AI来识别流程规则减少开发成本
- 及时适应最新的表单检查规则

## 故障排除

- 快速定位问题的原因
- 及时并采取合适的必要行动
- 提供客户影响程度的故障快报



Deploy

## LLM Scenario: FAQ

Please select the model:

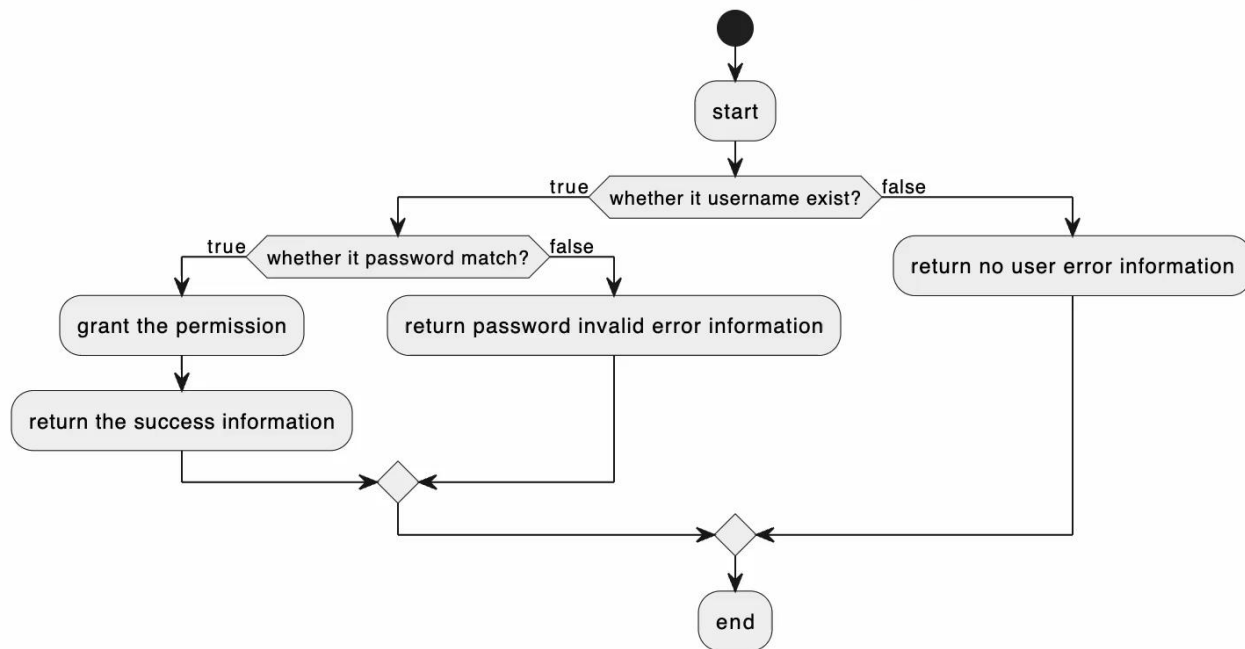
cntdai-english:latest

我想知道Login API相关验证的内容，我该进入到哪个链接？

- Failure patterns
- Response Example
  - Success
  - Failure

## Description

This interface is used to log in. Enter the user name and password to verify the login. The user name can be in email format.



Ask AI

## LLM Scenario: RootCauseAnalysis

Please select the model:

cntdai-english:latest

请帮我生成下测试用例

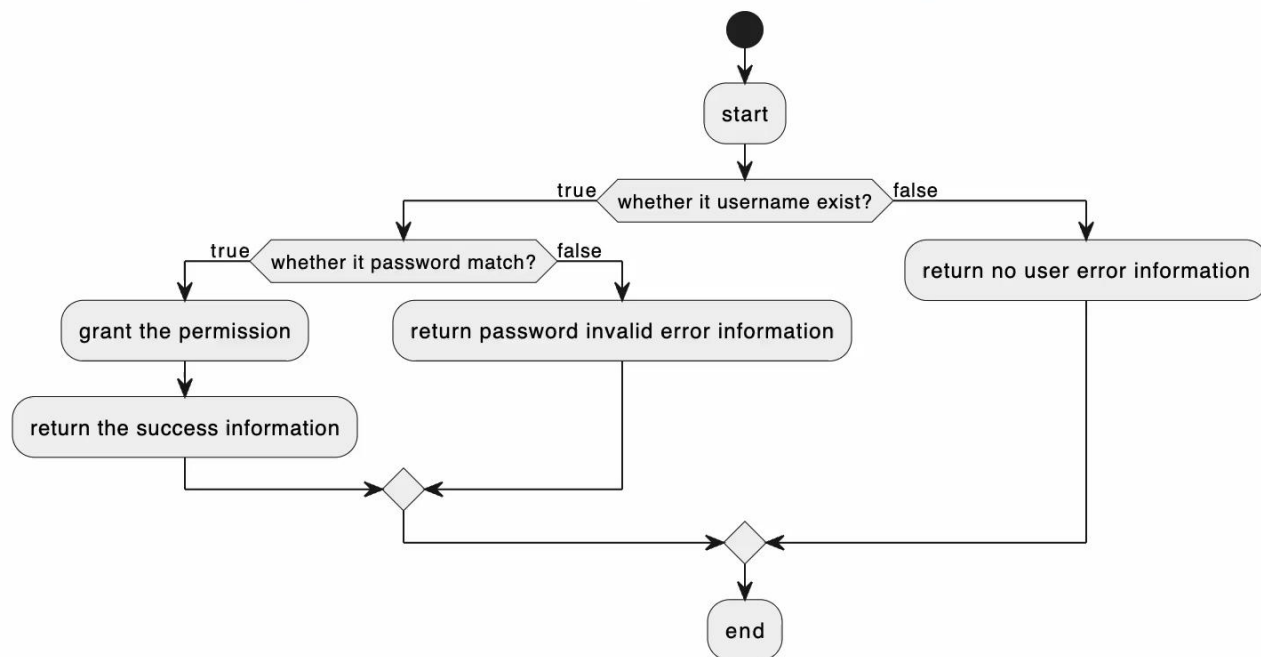




- Failure patterns
  - Response Example
    - Success
    - Failure

## Description

This interface is used to log in. Enter the user name and password to verify the login. The user name can be in email format.



Ask AI

Deploy

## LLM Scenario: RootCauseAnalysis

Please select the model:

cntdai-english:latest

帮我分析一下在什么情况下会报错误 password invalid error 的最有可能的一种情况?



Spaces ▾PeopleCalendarsAnalyticsCreate...

URL

https://\${domain} //login

Request

Request Headers

Header Key	Required	Header Value Example	Description
Content-Type	Y	application/x-www-form-urlencoded	

Request Body

Parameter Name	Type	Required	Validation	Description
username	String	Y	length >= 0 & <= 255  the email regex rule is '^([a-zA-Z0-9])+([a-zA-Z0-9._-+])*@([a-zA-Z0-9])+([a-zA-Z0-9._-+])+\$'	The user name can be in email format.
password	String	Y	• length >= 0 & <= 255	

Ask AI

Deploy⋮

LLM Scenario:  
DesginValidationCheck

Please select the model:  

cntdai-english:latest

帮我检查一下客户的email正则表达式 '^([a-zA-Z0-9.\_-+])\*@([a-zA-Z0-9])+([a-zA-Z0-9.\_-+])+\$', 与id email的正则表达的逻辑匹配度, 哪个更宽松一些?

```
https://${domain} //login
```

## Request Headers

Header Key	Required	Header Value Example	Description
Content-Type	Y	application/x-www-form-urlencoded	

## Request Body

Parameter Name	Type	Required	Validation	Description
username	String	Y	length >= 0 & <= 255  the email regex rule is '^([a-zA-Z0-9])+([a-zA-Z0-9._-+])*@([a-zA-Z0-9])+([a-zA-Z0-9.]+)\$'	The user name can be in email format.
password	String	Y	<ul style="list-style-type: none"><li>length &gt;= 0 &amp; &lt;= 255</li></ul>	

Ask AI

Please select the model:

cntdai-english:latest

请帮我检查 `goodpersion@baidu.com` 是否符合email的正则规则?



# 示例演示 自动检查流程

Spaces ▾

People

Calendars

Analytics

Create

...

Pages / ... / Releases

3. Update API "Login"

Thanks so much for the approval

First Time Operation:	No
Operation frequency:	Less often
Blue Green Environment:	Yes
Failure impact:	Low
Recovery procedure duration:	1-5 minutes
Feature Flag:	No
Canary Release:	Yes
Using Forward Proxy in Production:	No
Service downtime duration:	N/A
Monitoring KPIs:	Required: https://confluence.it.com/XXXXXXXX
Pull Requests:	https://git.it.com/projects/XXXXXXXX/repos/Login/pull-requests/XXXXXX
Operation Duration:	0d 02hr 00min
Release Date:	2021-11-09
Approve Data:	2021-11-08
Review & Approval:	Done: yanghang
Release Pod Count	6
Canary Pod Count	8

Deploy

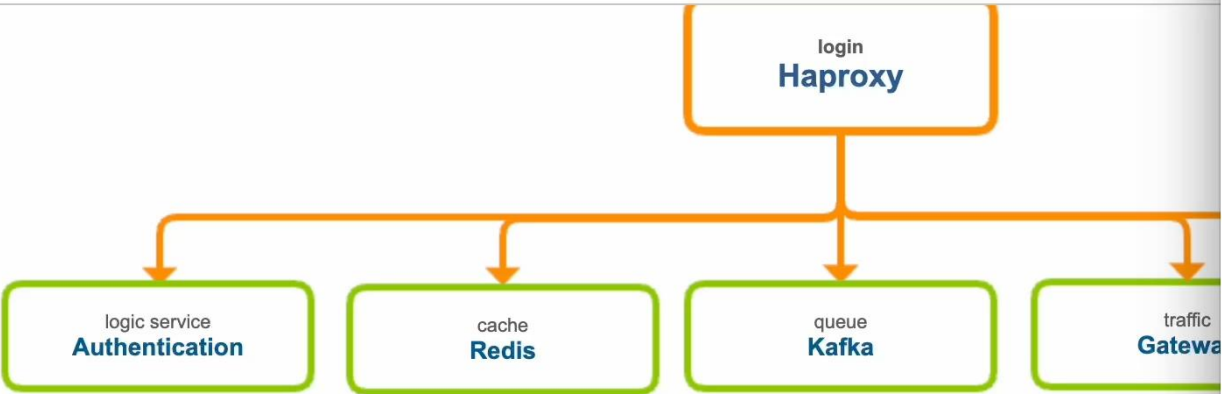
⋮

## LLM Scenario: CheckListToEpram

Please select the model:

cntdai-english:latest ▾

请帮忙检查下是否违反规则，原因是什么？ | ➤



The Root Cause Analysis

Ask AI

NO	Haproxy Error	Root Cause
1	haproxy error count is greater than 0	if the haproxy_error_count is greater than 0 and the oracle_slow_down_count is greater than 0 the error reason is cause by the Oracle have slowdown
2	haproxy error count is greater than 0	if the haproxy_error_count is greater than 0 and the redis_slowdown_db is greater than 0 the error reason is cause by the Redis have slowdown
3	haproxy error count is greater than 0	if the haproxy_error_count is greater than 0 and the kafka_slowdown_count is greater than 0 the error reason is cause by the Kafka have slowdown
4	haproxy error count is greater than 0	if the haproxy_error_count is greater than 0 and the gateway_slowdown_count is greater than 0 the error reason is cause by the GateWay have slowdown
5	haproxy error count is greater than 0	if the haproxy_error_count is greater than 0 and the

Deploy ⋮

LLM Scenario: FlashReport

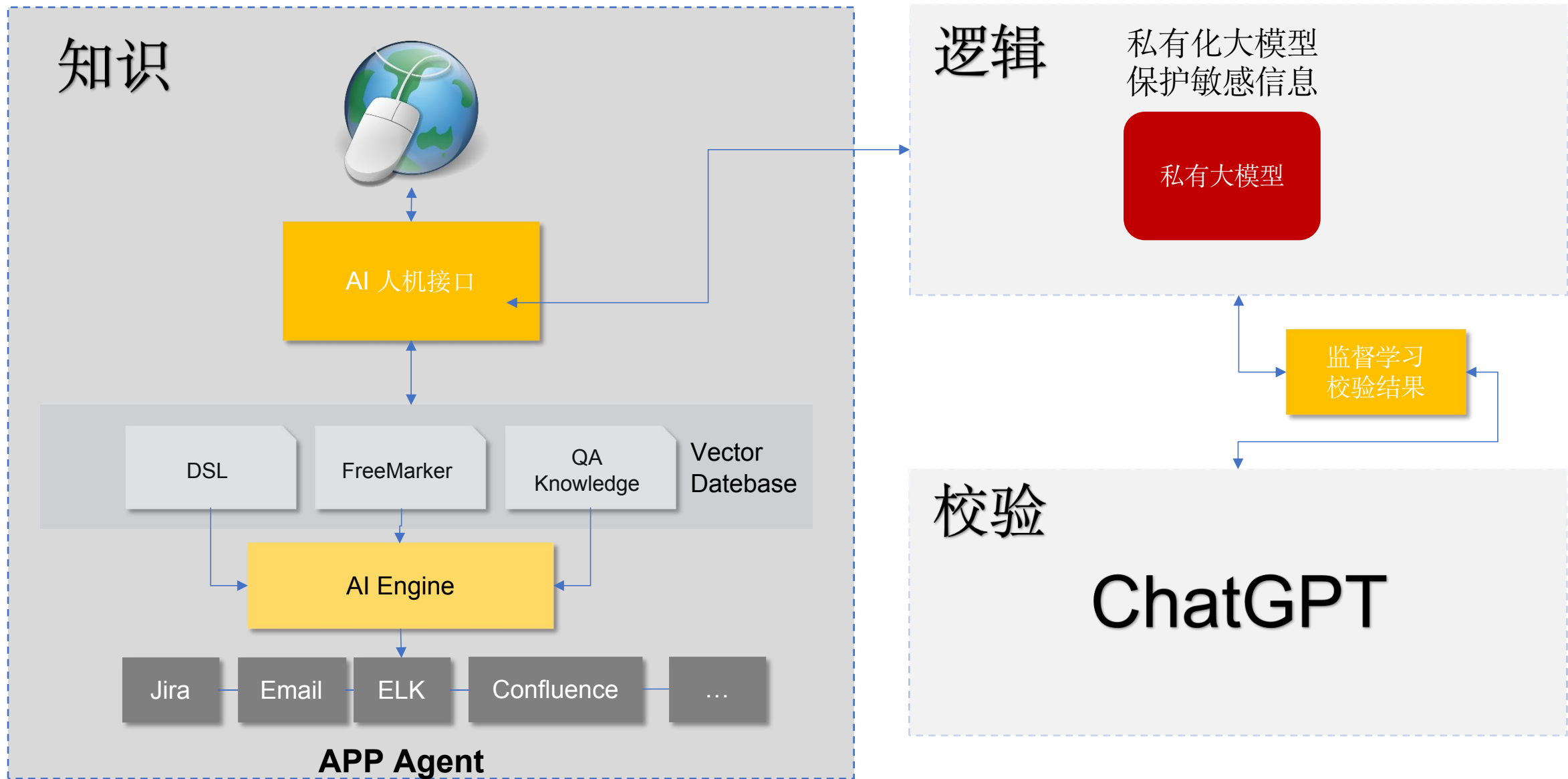
Please select the model:

cntdai-english:latest

```
{
  haproxy_error_count: 6,
  haproxy_slowdown_count: 0,
  oracle_db_slowdown_db: 9,
  redis_slowdown_db: 0,
  kafka_slowdown_count: 0,
  email_slowdown_count: 0,
  gateway_slowdown_count: 0,
  authentication_slowdown_count: 0
}
```

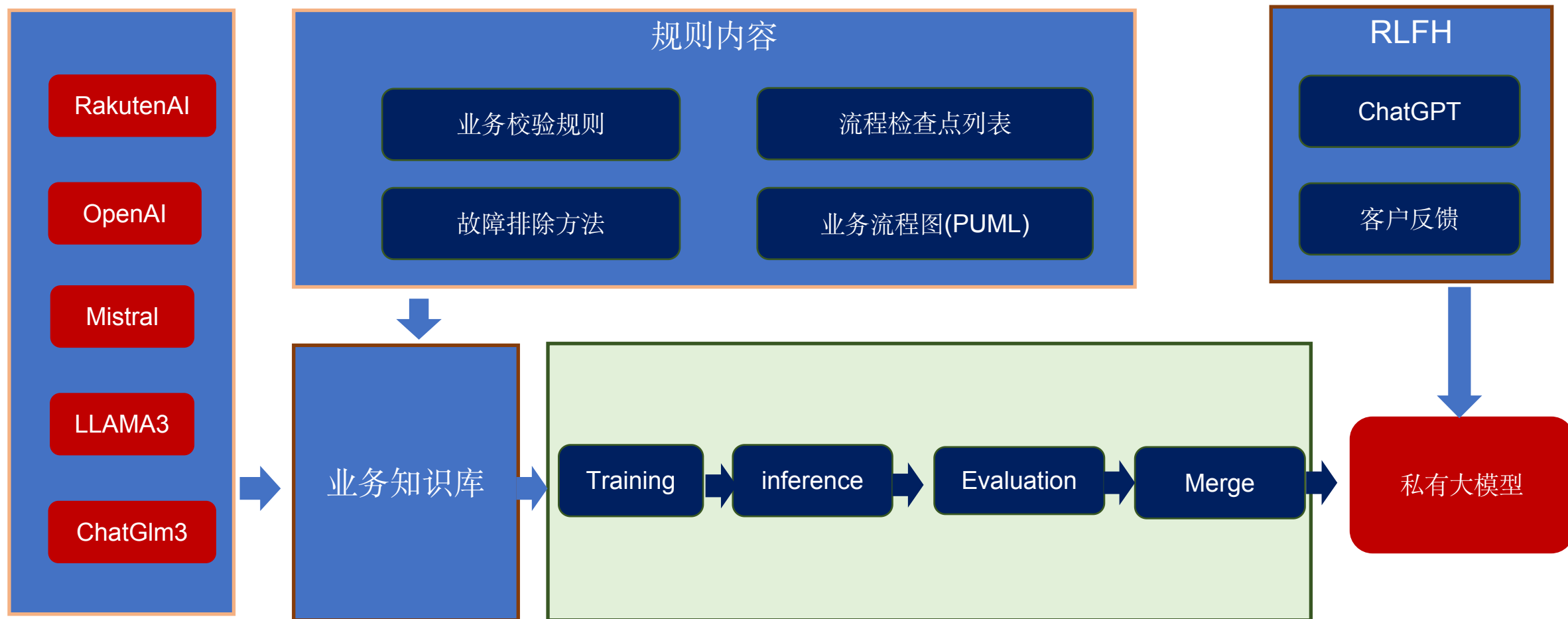
请根据规则和以上数据判断下系统错误的原因?



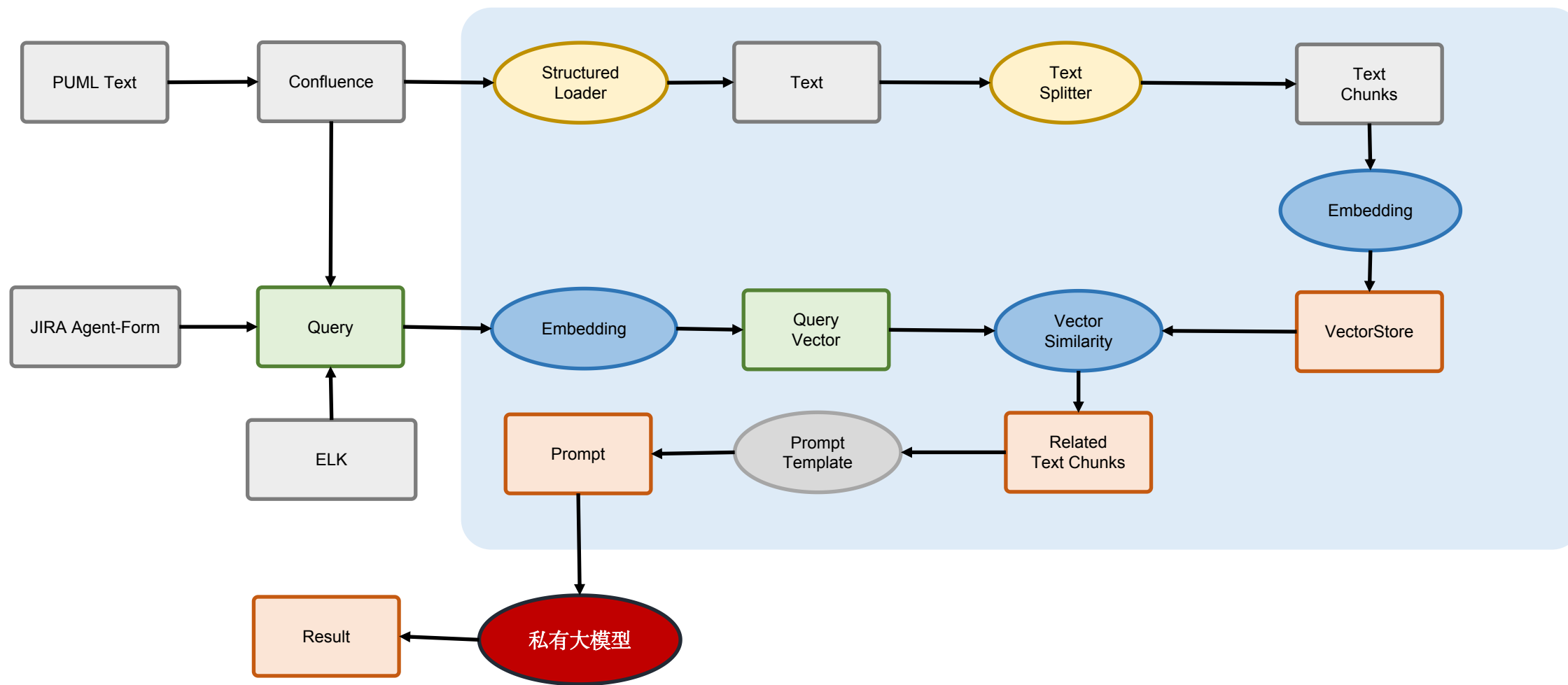




# 系统架构- 私有大模型微调



# 系统架构- LangChain







## API 规格说明书

业务描述

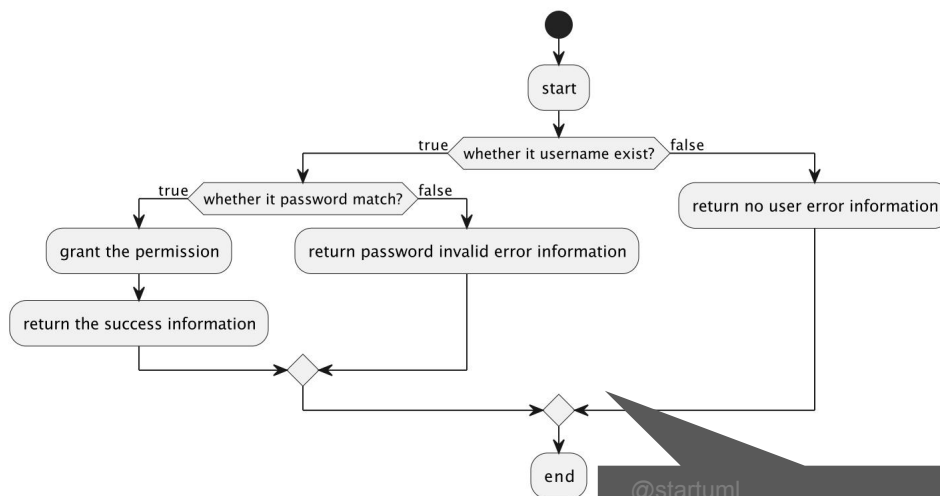
输入参数说明

输出参数说明

校验规则说明

业务流程图(PUML)

## API说明 页面 PUML



```
@startuml
start
:start;
if (whether it username exist?) then
(true)
if (whether it password match?) then
(true)
:grant the permission;
:return the success information;
else (false)
:return password invalid error
information;
endif
else (false)
:return no user error information;
endif
:end;
@enduml
```

私有大模型  
当用户名存在，并且密码不正确时候  
将会返回"Invalid password" 错误。



## 设计A

My regex rule is '^([a-zA-Z0-9])+([a-zA-Z0-9.\_-+])\*@([a-zA-Z0-9])+([a-zA-Z0-9.\_-+])+\$' is against ID rule

## API 规格说明书

业务描述

输入参数说明

输出参数说明

校验规则说明

业务流程图(PUML)

## 设计B

the ID email regex rule is '^([a-zA-Z0-9])+([a-zA-Z0-9.\_-+])\*@([a-zA-Z0-9])+([a-zA-Z0-9.\_-+])+\$'

## 私有大型模型

ID Email 的正则表达式更宽松一些



## 规则

Kubernetes 下  
当前发版的Pod  
数量必须等于  
灰度发布提供的  
Pod数量,以便  
随时回滚

## 流程表单

标题

内容

责任人

发版Pod数量

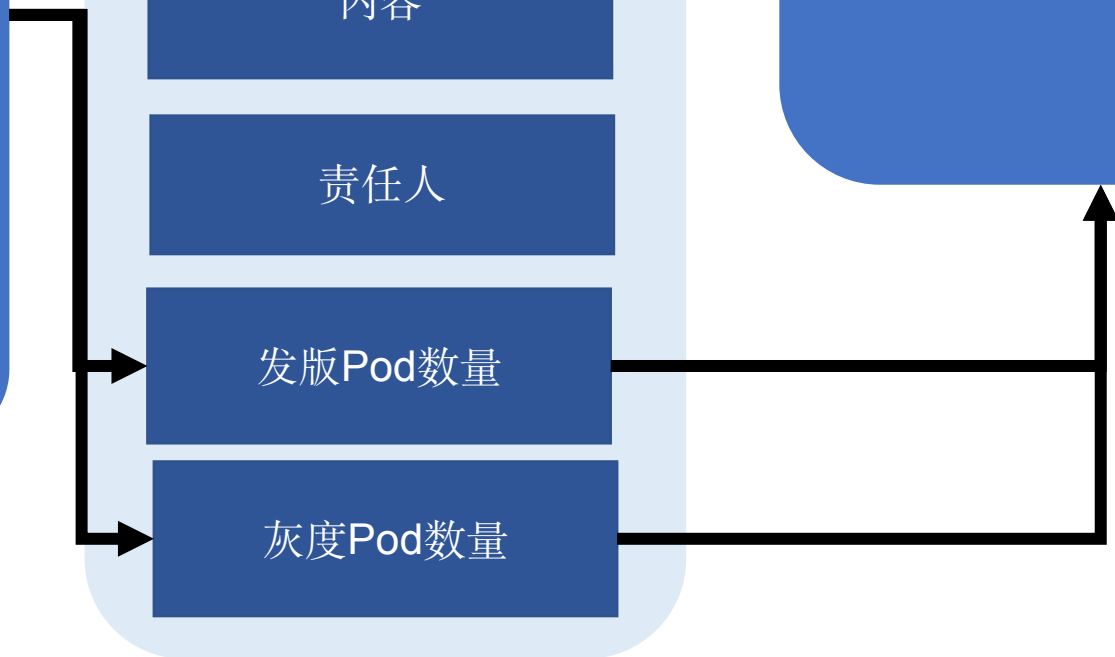
灰度Pod数量

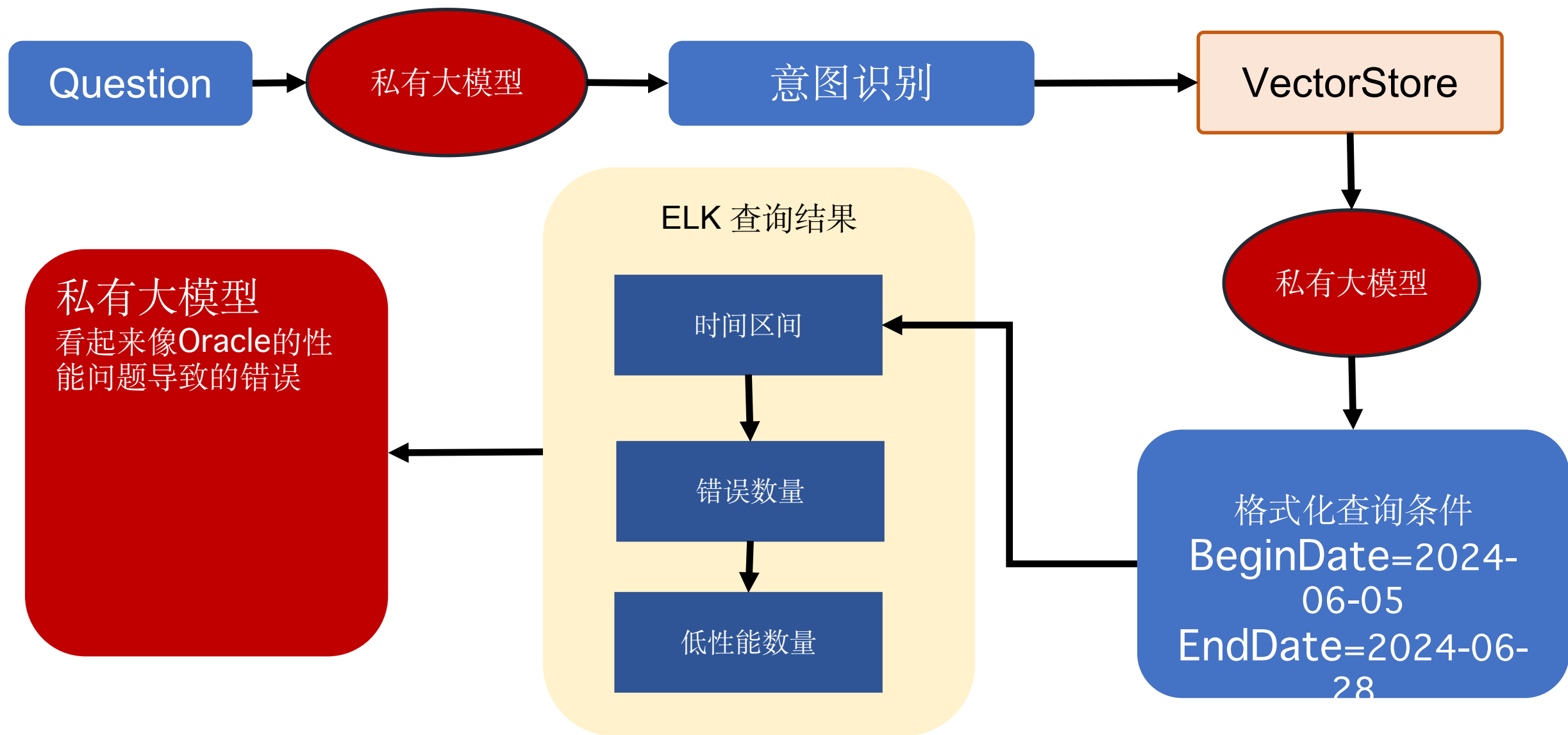
## 流程表单抽取

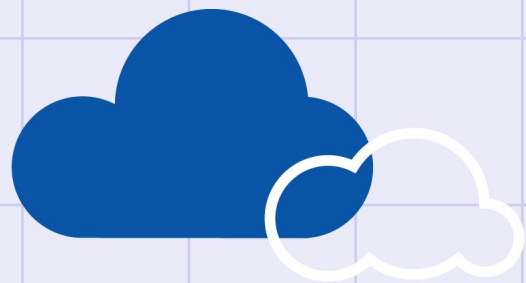
the release values is  
release pod count is 6  
and the canary pod  
count 8

## 私有大模型

违反规则, 因为当  
前发布的POD与灰  
度发布提供的POD  
数量不相等







# 感谢观看



**云原生社区**  
Cloud Native Community

