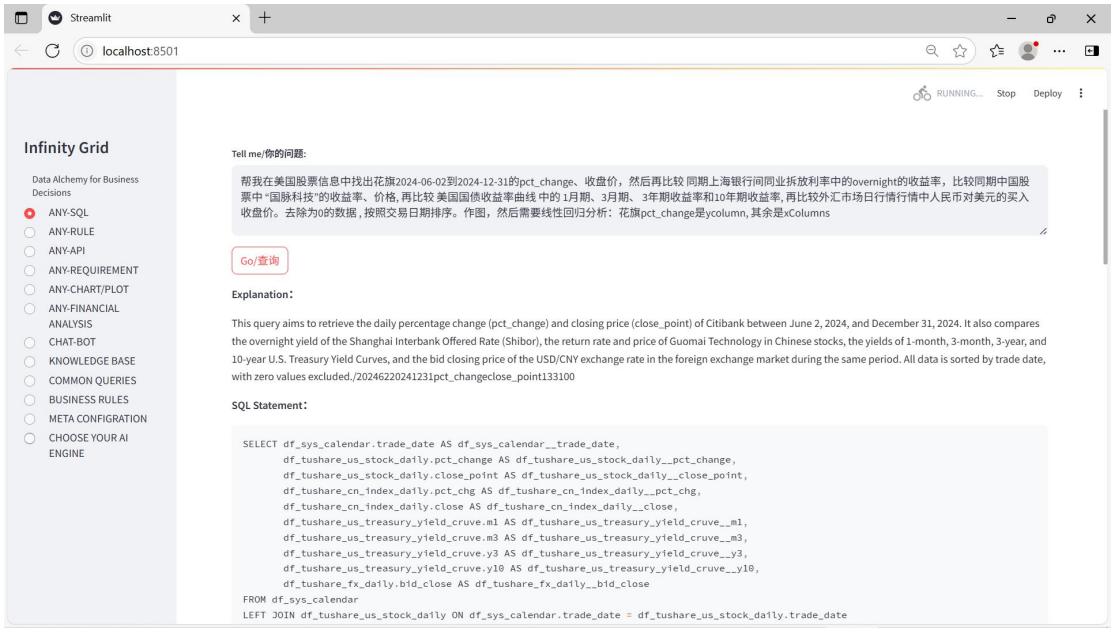
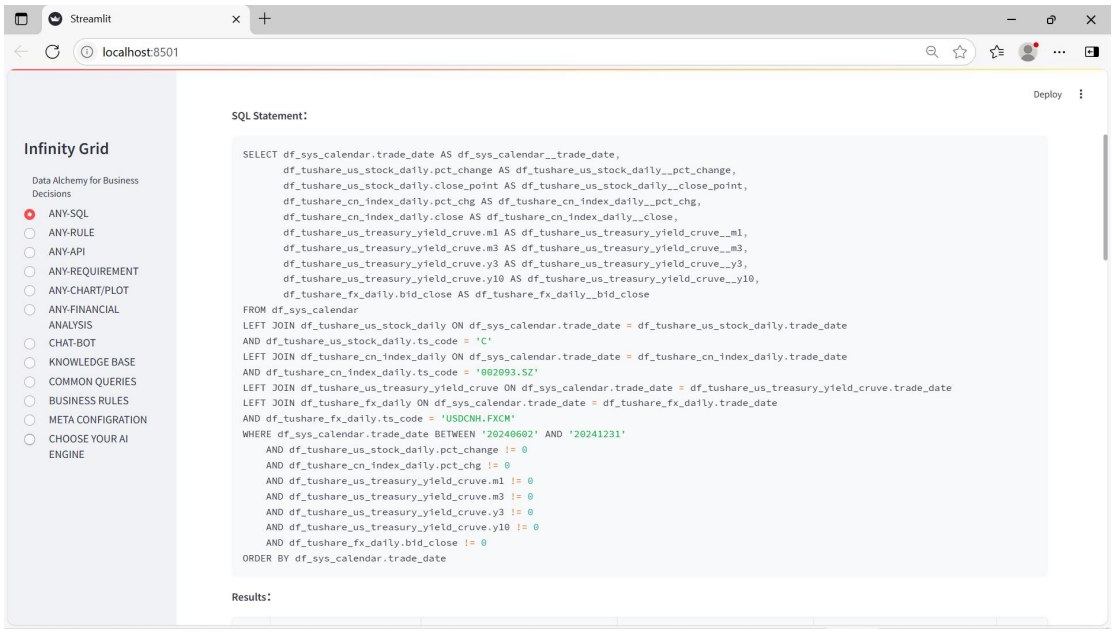
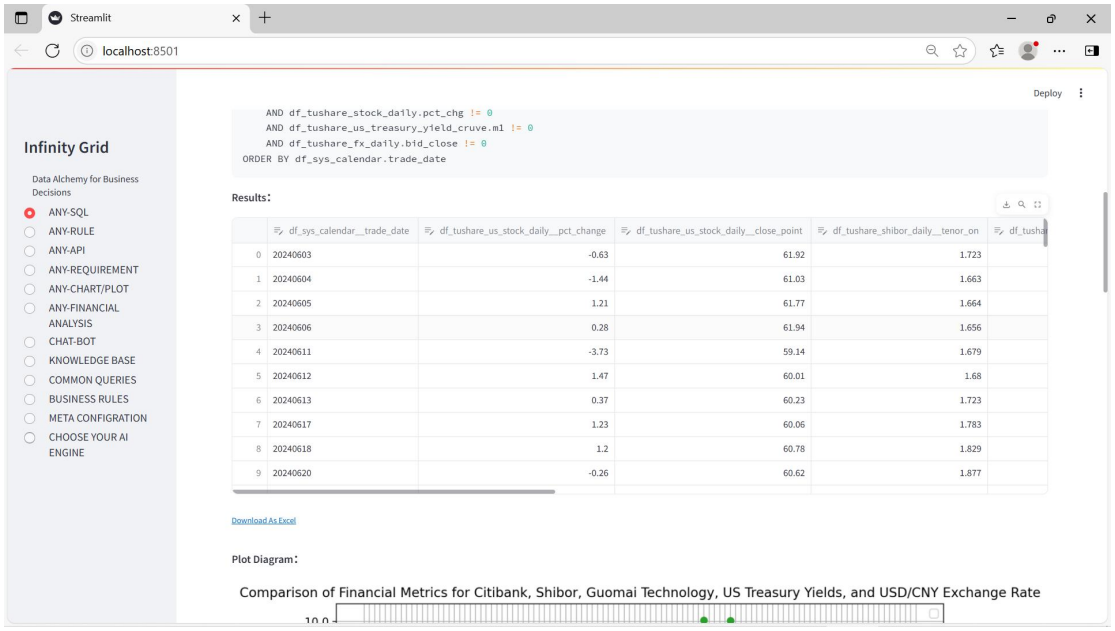
A Brief Introduction of Infinity Grid

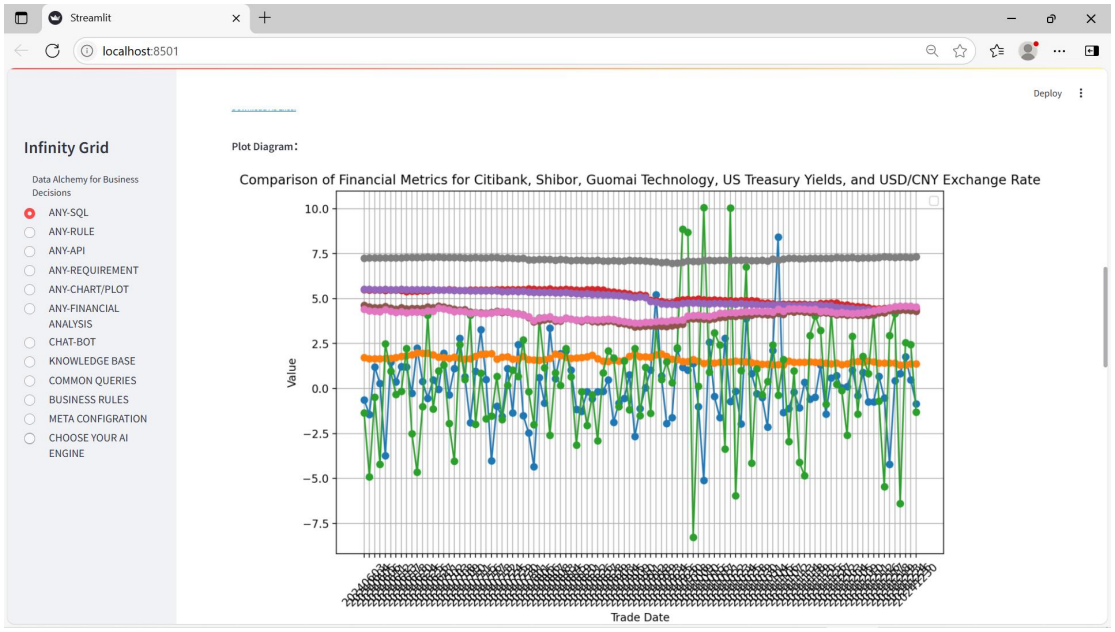
Infinity Grid is an open-source large language model Agent. Its main function is to provide large language model support for financial quantitative tools. Infinity can serve as a plug-in to offer traditional financial industries quantitative calculations for various financial models, including those for fixed income, stocks, derivatives, etc.

Function 1: Translate human language into SQL queries and complete quantitative analysis.






Streamlit
localhost:8501
Deploy
Infinity Grid
Data Alchemy for Business Decisions
ANY-SQL
ANY-RULE
ANY-API
ANY-REQUIREMENT
ANY-CHART/PLOT
ANY-FINANCIAL ANALYSIS
CHAT-BOT
KNOWLEDGE BASE
COMMON QUERIES
BUSINESS RULES
META CONFIGRATION
CHOOSE YOUR AI ENGINE
AND df_tushare_stock_daily.pct_chg != 0
AND df_tushare_us_treasury_yield_cruve.m1 != 0
AND df_tushare_fx_daily.bid_close != 0
ORDER BY df_sys_calendar.trade_date
Results:
df_sys_calendar__trade_date
df_tushare_us_stock_daily__pct_change
df_tushare_us_stock_daily__close_point
df_tushare_shibor_daily__tenor_on
0 20240603 -0.63 61.92 1.723
1 20240604 -1.44 61.03 1.663
2 20240605 1.21 61.77 1.664
3 20240606 0.28 61.94 1.656
4 20240611 -3.73 59.14 1.679
5 20240612 1.47 60.01 1.68
6 20240613 0.37 60.23 1.723
7 20240617 1.23 60.06 1.783
8 20240618 1.2 60.78 1.829
9 20240620 -0.26 60.62 1.877
Download As Excel
Plot Diagram:
Comparison of Financial Metrics for Citibank, Shibor, Guomai Technology, US Treasury Yields, and USD/CNY Exchange Rate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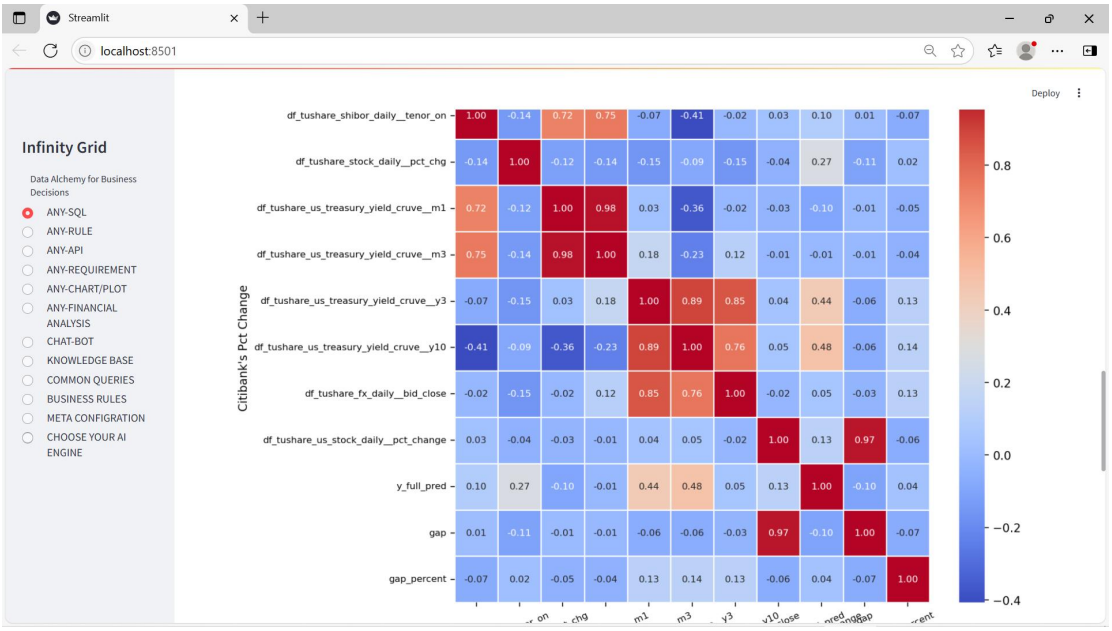
META CONFIGRATION
CHOOSE YOUR AI ENGINE
Plot Diagram:
Comparison of Financial Metrics for Citibank, Shibor, Guomai Technology, US Treasury Yields, and USD/CNY Exchange Rate
10.0
7.5
5.0
2.5
0.0
−2.5
−5.0
−7.5
Value
Trade Date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BUSINESS RULES
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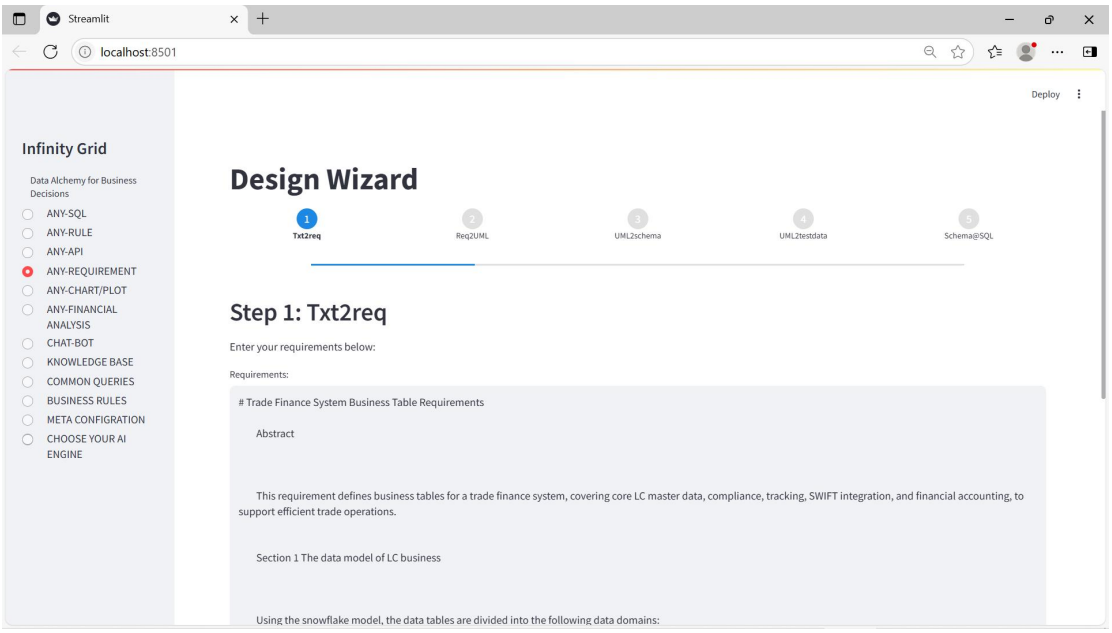
CHOOSE YOUR AI ENGINE
Citibank's Pct Change
df_tushare_shibor_daily__tenor_on
df_tushare_stock_daily__pct_chg
df_tushare_us_treasury_yield_cruve__m1
df_tushare_us_treasury_yield_cruve__m3
df_tushare_us_treasury_yield_cruve__y3
df_tushare_us_treasury_yield_cruve__y10
df_tushare_fx_daily__bid_close
df_tushare_us_stock_daily__pct_change
y_full_pred
gap
gap_percent
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4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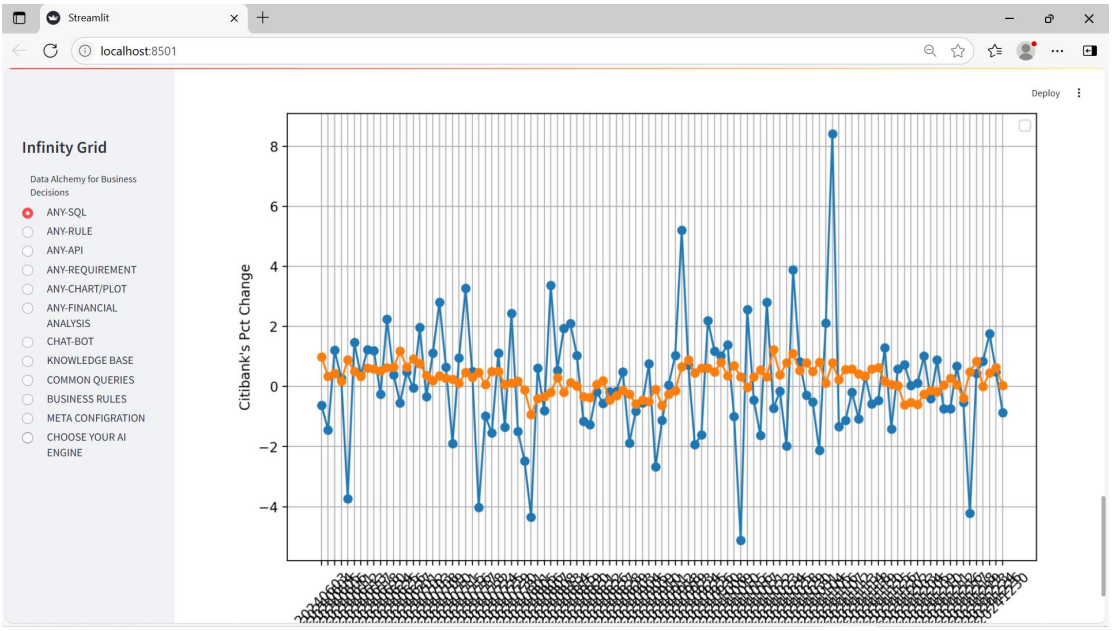
BUSINESS RULES
META CONFIGRATION
CHOOSE YOUR AI ENGINE
Design Wizard
1 Txt2req
2 Req2UML
3 UML2schema
4 UML2testdata
5 Schema@SQL
Step 1: Txt2req
Enter your requirements below:
Requirements:
Trade Finance System Business Table Requirements
Abstract
This requirement defines business tables for a trade finance system, covering core LC master data, compliance, tracking, SWIFT integration, and financial accounting, to support efficient trade operations.
Section 1 The data model of LC business
Using the snowflake model, the data tables are divided into the following data domains: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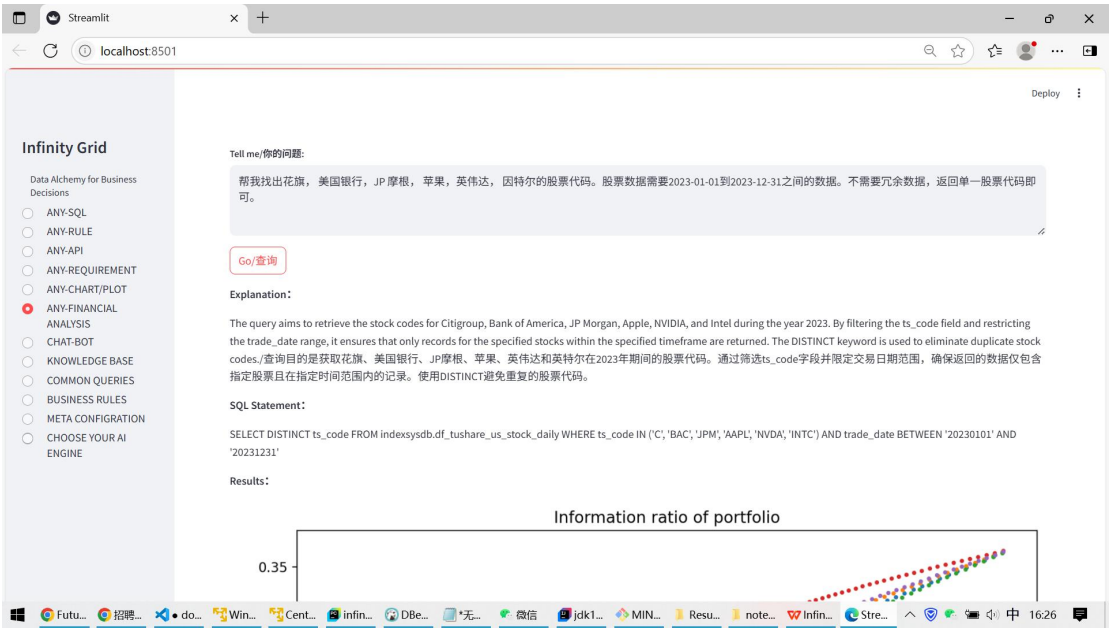
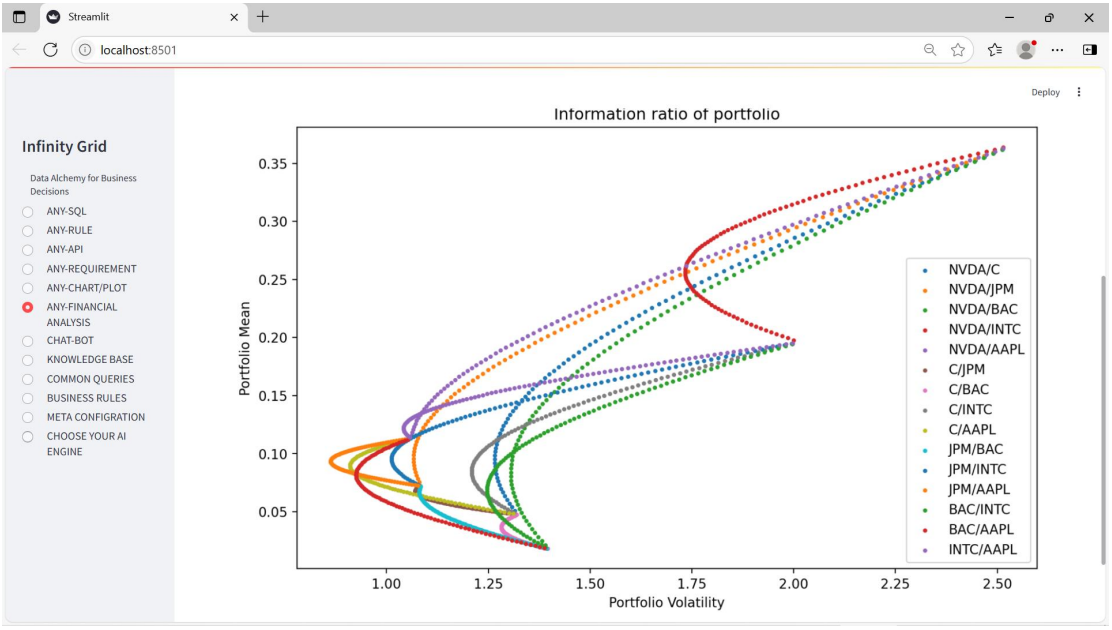
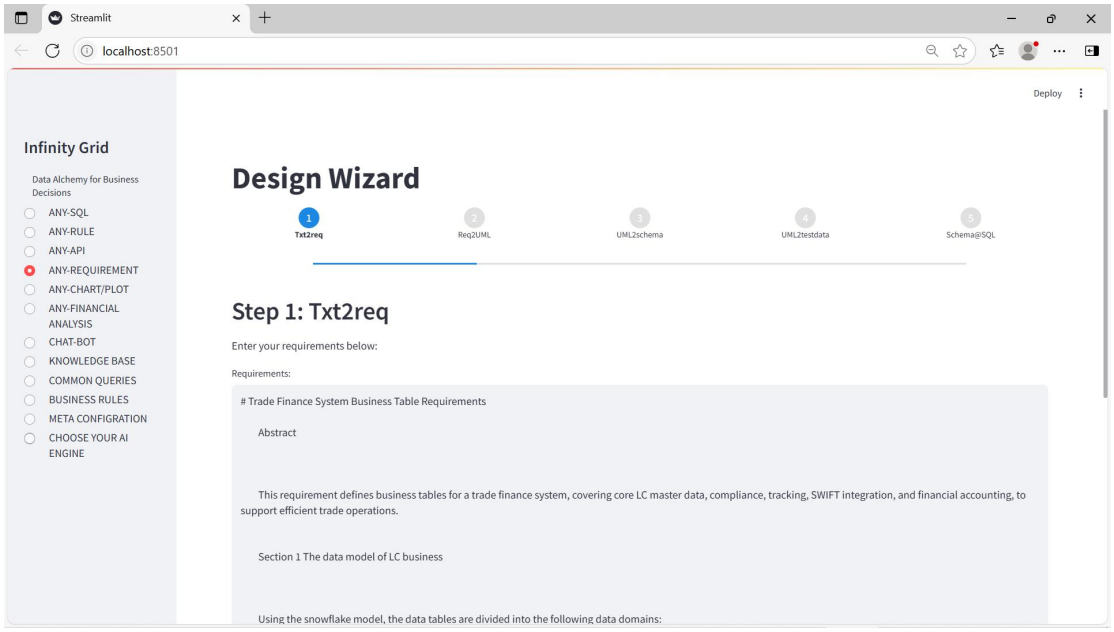
META CONFIGRATION
CHOOSE YOUR AI ENGINE
Citibank's Pct Change
8
6
4
2
0
−2
−4

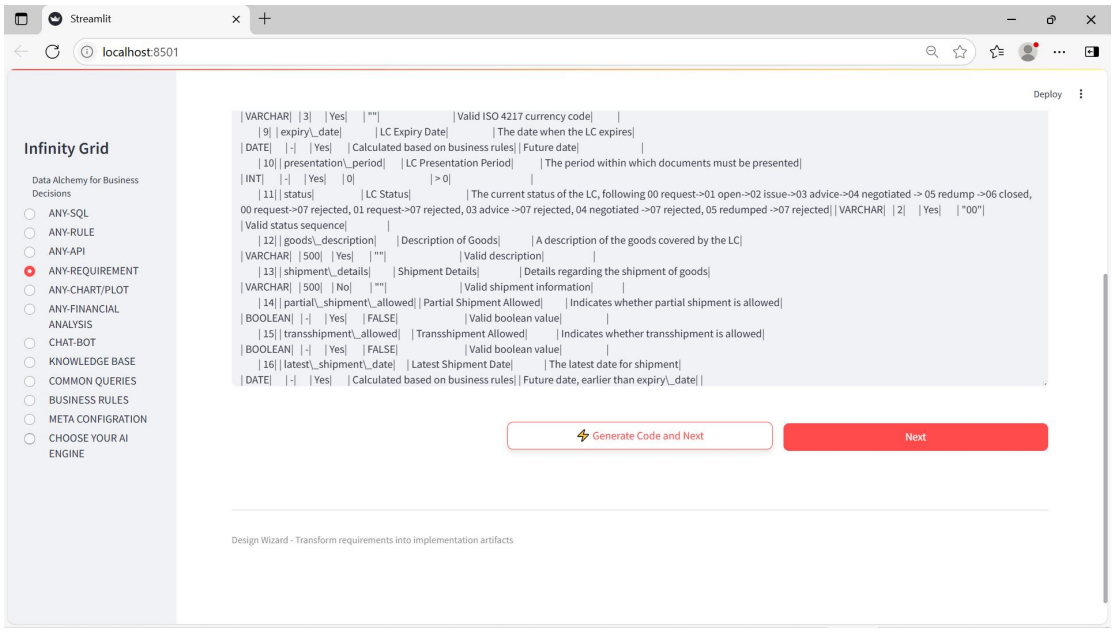
Function 2: LLM based portfolio analysis

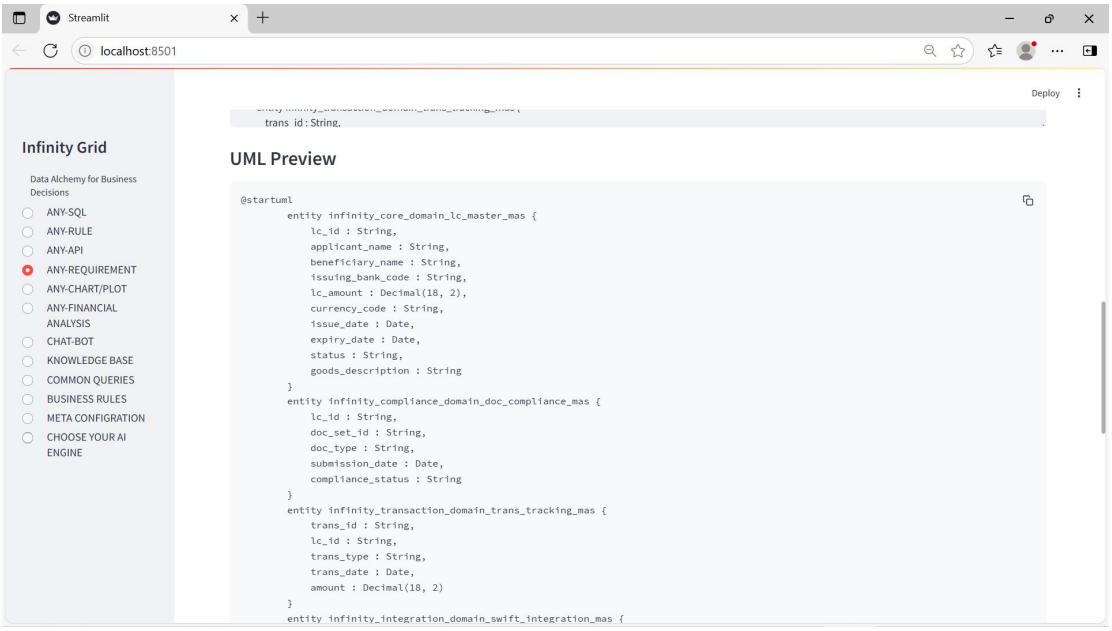




Function 3: To parse the requirement in human lanaguage and convert it to UML and code






Streamlit
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Deploy
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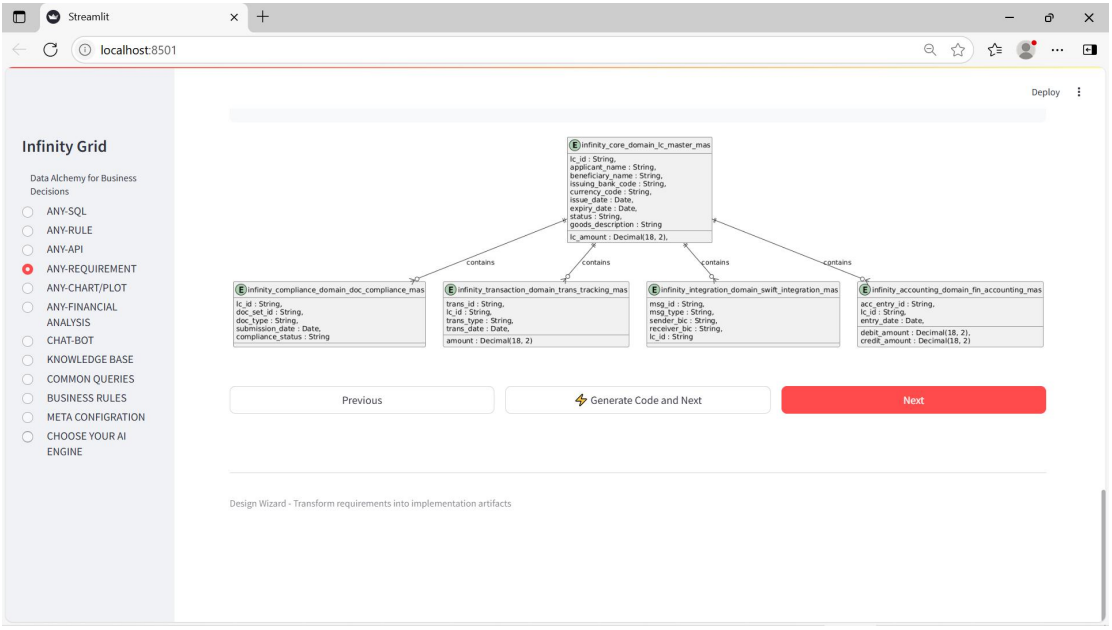
ANY-FINANCIAL ANALYSIS
CHAT-BOT
KNOWLEDGE BASE
COMMON QUERIES
BUSINESS RULES
META CONFIGRATION
CHOOSE YOUR AI ENGINE
trans_id : String,
UML Preview
@startuml
entity infinity_core_domain_lc_master_mas {
lc_id : String,
applicant_name : String,
beneficiary_name : String,
issuing_bank_code : String,
lc_amount : Decimal(18, 2),
currency_code : String,
issue_date : Date,
expiry_date : Date,
status : String,
goods_description : String
}
entity infinity_compliance_domain_doc_compliance_mas {
lc_id : String,
doc_set_id : String,
doc_type : String,
submission_date : Date,
compliance_status : String
}
entity infinity_transaction_domain_trans_tracking_mas {
trans_id : String,
lc_id : String,
trans_type : String,
trans_date : Date,
amount : Decimal(18, 2)
}
entity infinity_integration_domain_swift_integration_mas {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COMMON QUERIES
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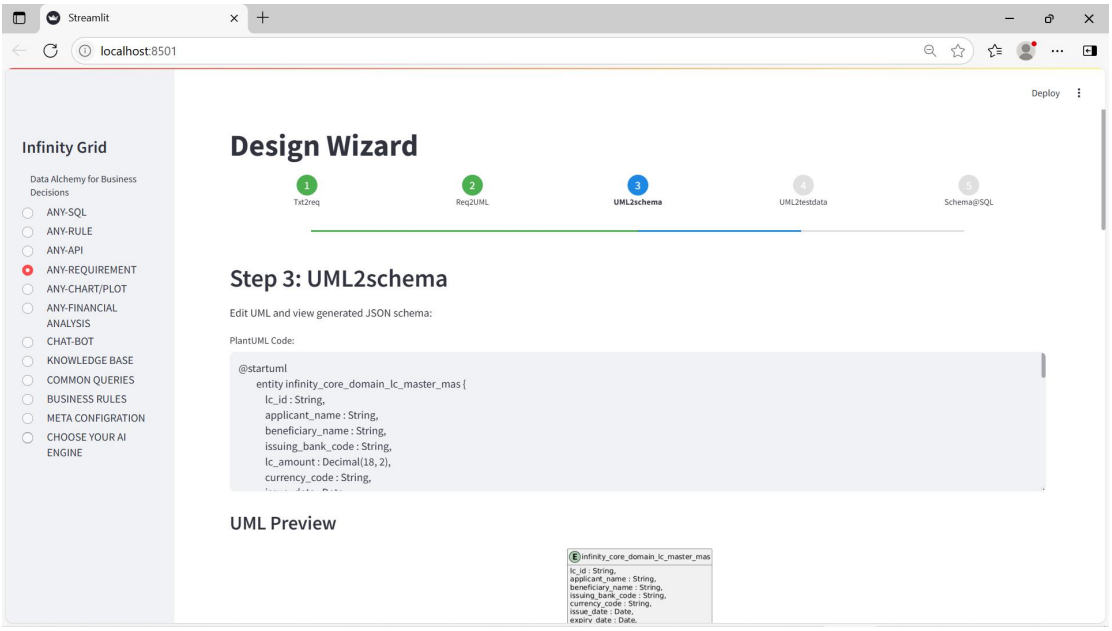
META CONFIGRATION
CHOOSE YOUR AI ENGINE
infinity_core_domain_lc_master_mas
lc_id : String,
applicant_name : String,
beneficiary_name : String,
issuing_bank_code : String,
currency_code : String,
issue_date : Date,
expiry_date : Date,
status : String,
goods_description : String
lc_amount : Decimal(18, 2),
contains
contains
contains
contains
infinity_compliance_domain_doc_compliance_mas
lc_id : String,
doc_set_id : String,
doc_type : String,
submission_date : Date,
compliance_status : String
infinity_transaction_domain_trans_tracking_mas
trans_id : String,
lc_id : String,
trans_type : String,
trans_date : Date,
amount : Decimal(18, 2)
infinity_integration_domain_swift_integration_mas
msg_id : String,
msg_type : String,
sender_bic : String,
receiver_bic : String,
lc_id : String
infinity_accounting_domain_fin_accounting_mas
acc_entry_id : String,
lc_id : String,
entry_date : Date,
debit_amount : Decimal(18, 2),
credit_amount : Decimal(18, 2)
Previous
Generate Code and Next
Next
Design Wizard - Transform requirements into implementation artifacts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Infinity Grid
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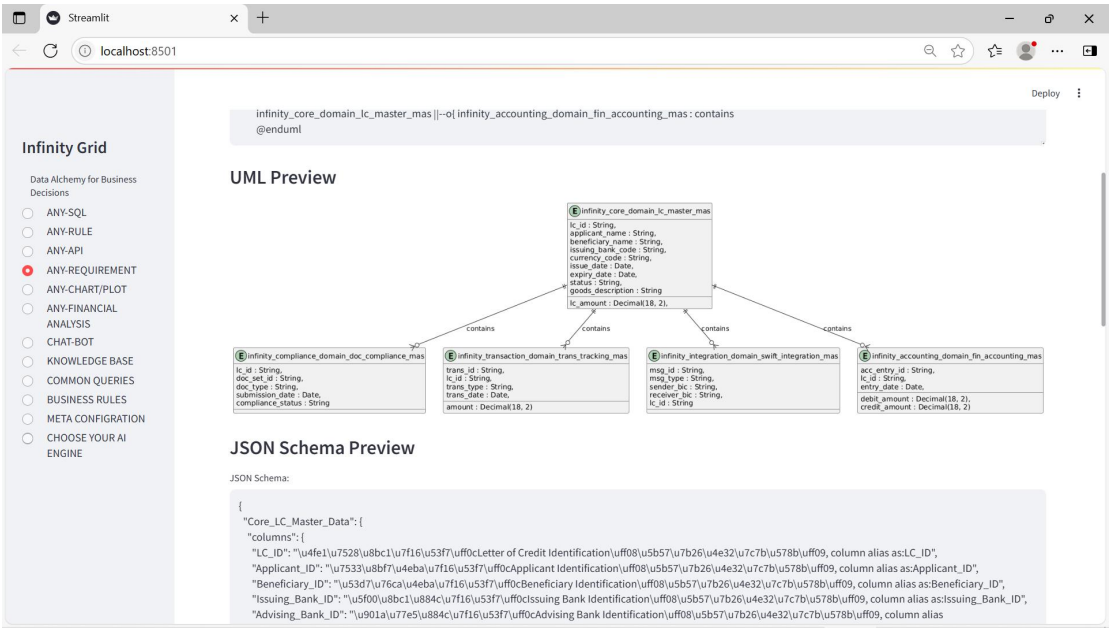
CHOOSE YOUR AI ENGINE
Design Wizard
1 Txt2req
2 Req2UML
3 UML2schema
4 UML2testdata
5 Schema@SQL
Step 3: UML2schema
Edit UML and view generated JSON schema:
PlantUML Code:
@startuml
entity infinity_core_domain_lc_master_mas {
lc_id : String,
applicant_name : String,
beneficiary_name : String,
issuing_bank_code : String,
lc_amount : Decimal(18, 2),
currency_code : String,
UML Preview
infinity_core_domain_lc_master_mas
lc_id : String,
applicant_name : String,
beneficiary_name : String,
issuing_bank_code : String,
currency_code : String,
issue_date : Date,
expiry_date : Date,


Streamlit
localhost:8501
Deploy
infinity_core_domain_lc_master_mas ||--o{ infinity_accounting_domain_fin_accounting_mas : contains
@enduml
Infinity Grid
Data Alchemy for Business Decisions
ANY-SQL
ANY-RULE
ANY-API
ANY-REQUIREMENT
ANY-CHART/PLOT
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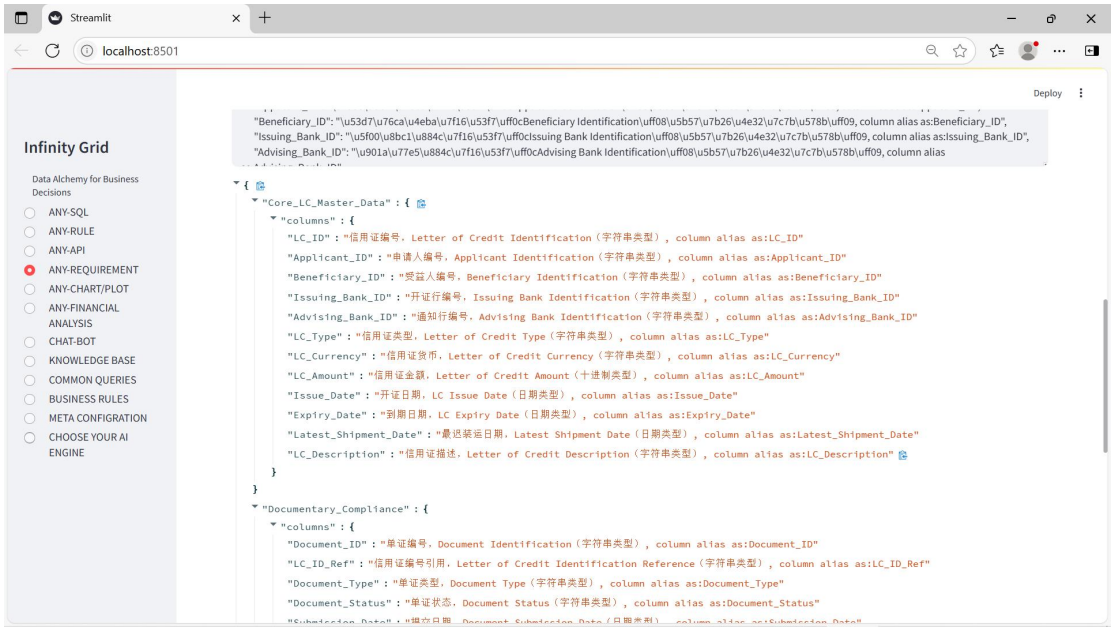
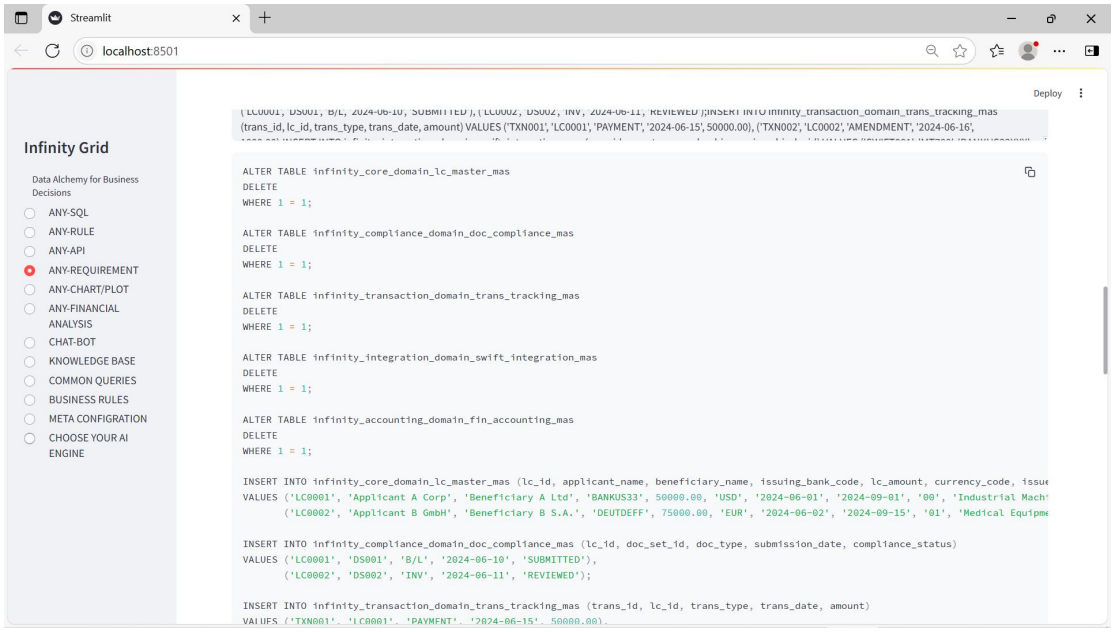
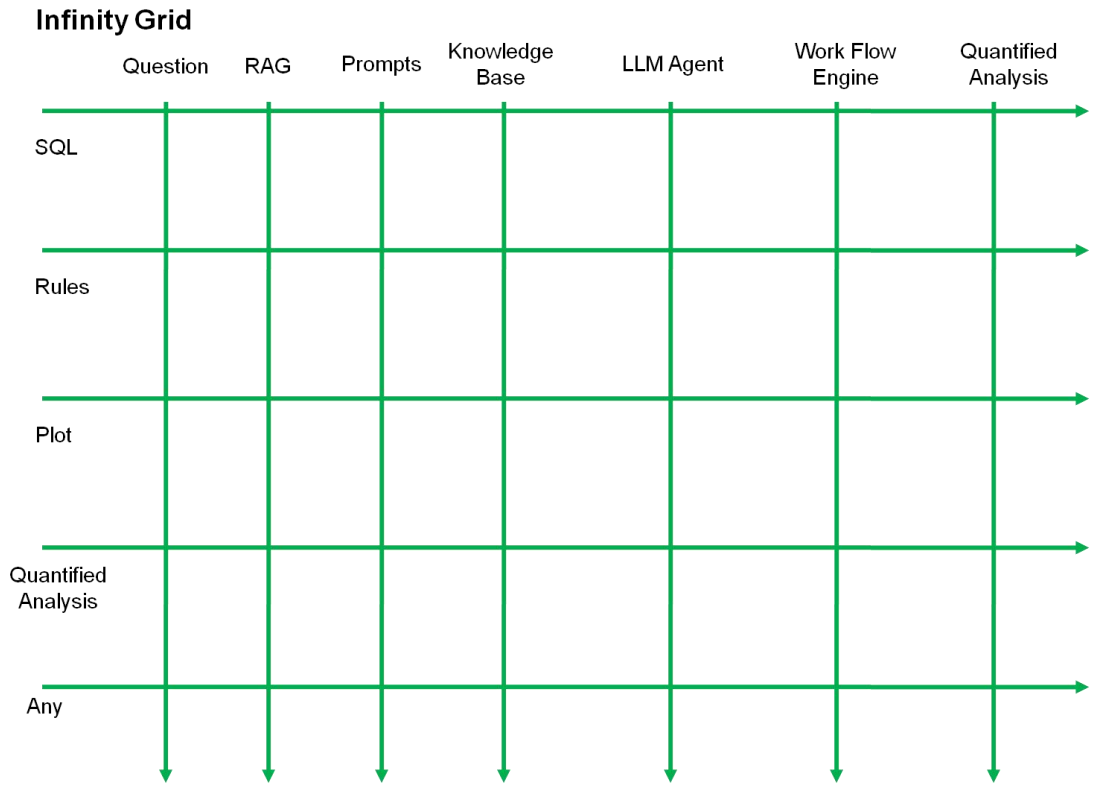
UML Preview
infinity_core_domain_lc_master_mas
lc_id : String,
applicant_name : String,
beneficiary_name : String,
issuing_bank_code : String,
currency_code : String,
issue_date : Date,
expiry_date : Date,
status : String,
goods_description : String
lc_amount : Decimal(18, 2),
contains
contains
contains
contains
infinity_compliance_domain_doc_compliance_mas
lc_id : String,
doc_set_id : String,
doc_type : String,
submission_date : Date,
compliance_status : String
infinity_transaction_domain_trans_tracking_mas
trans_id : String,
lc_id : String,
trans_type : String,
trans_date : Date,
amount : Decimal(18, 2)
infinity_integration_domain_swift_integration_mas
msg_id : String,
msg_type : String,
sender_bic : String,
receiver_bic : String,
lc_id : String
infinity_accounting_domain_fin_accounting_mas
acc_entry_id : String,
lc_id : String,
entry_date : Date,
debit_amount : Decimal(18, 2),
credit_amount : Decimal(18, 2)
JSON Schema Preview
JSON Schema:
{
"Core_LC_Master_Data": {
"columns": {
"LC_ID": "\u4fe1\u7528\u8bc1\u7f16\u53f7\uff0cLetter of Credit Identification\uff08\u5b57\u7b26\u4e32\u7c7b\u578b\uff09, column alias as:LC_ID",
"Applicant_ID": "\u7533\u8bf7\u4eba\u7f16\u53f7\uff0cApplicant Identification\uff08\u5b57\u7b26\u4e32\u7c7b\u578b\uff09, column alias as:Applicant_ID",
"Beneficiary_ID": "\u53d7\u76ca\u4eba\u7f16\u53f7\uff0cBeneficiary Identification\uff08\u5b57\u7b26\u4e32\u7c7b\u578b\uff09, column alias as:Beneficiary_ID",
"Issuing_Bank_ID": "\u5f00\u8bc1\u884c\u7f16\u53f7\uff0cIssuing Bank Identification\uff08\u5b57\u7b26\u4e32\u7c7b\u578b\uff09, column alias as:Issuing_Bank_ID",
"Advising_Bank_ID": "\u901a\u77e5\u884c\u7f16\u53f7\uff0cAdvising Bank Identification\uff08\u5b57\u7b26\u4e32\u7c7b\u578b\uff09, column alias





The design and concept of Infinity Grid



Gitee URL

Quantified Analysis framework	https://gitee.com/snetlogon20/data-integrator
LLM Agent	https://gitee.com/snetlogon20/data-integrator/tree/master/LLMSuport