



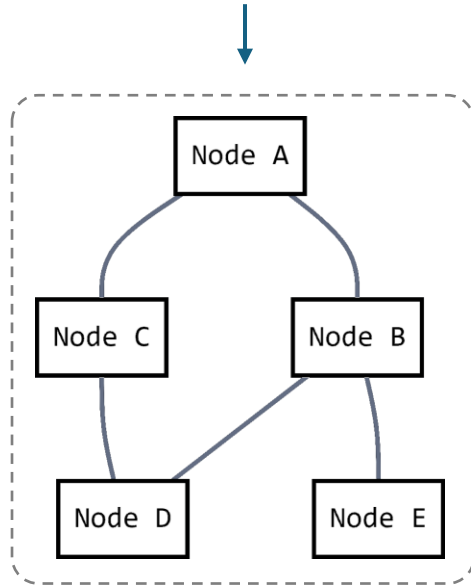
GRAPHS 101

**EXPLORING THE WONDERFUL
WORLD OF GRAPHS**

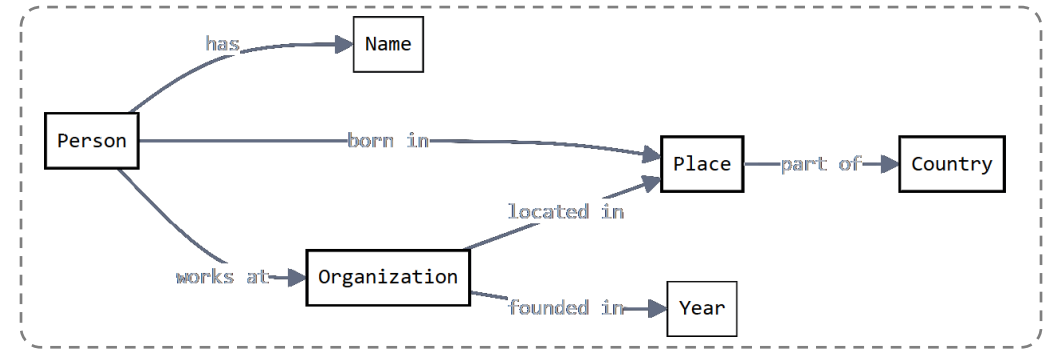


Graphs 101: Graph Structures

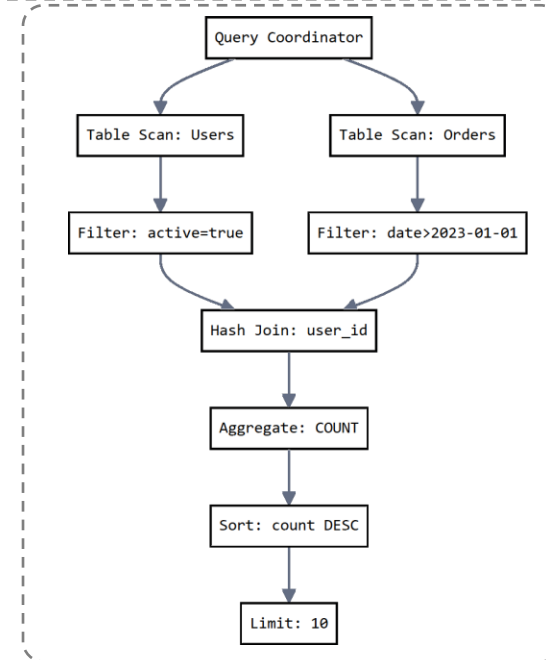
Graph Structure



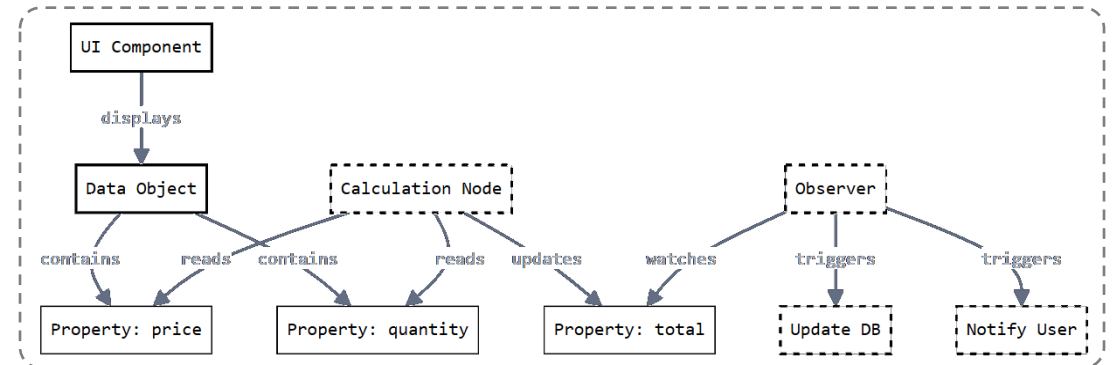
Data Graph



Execution Graph

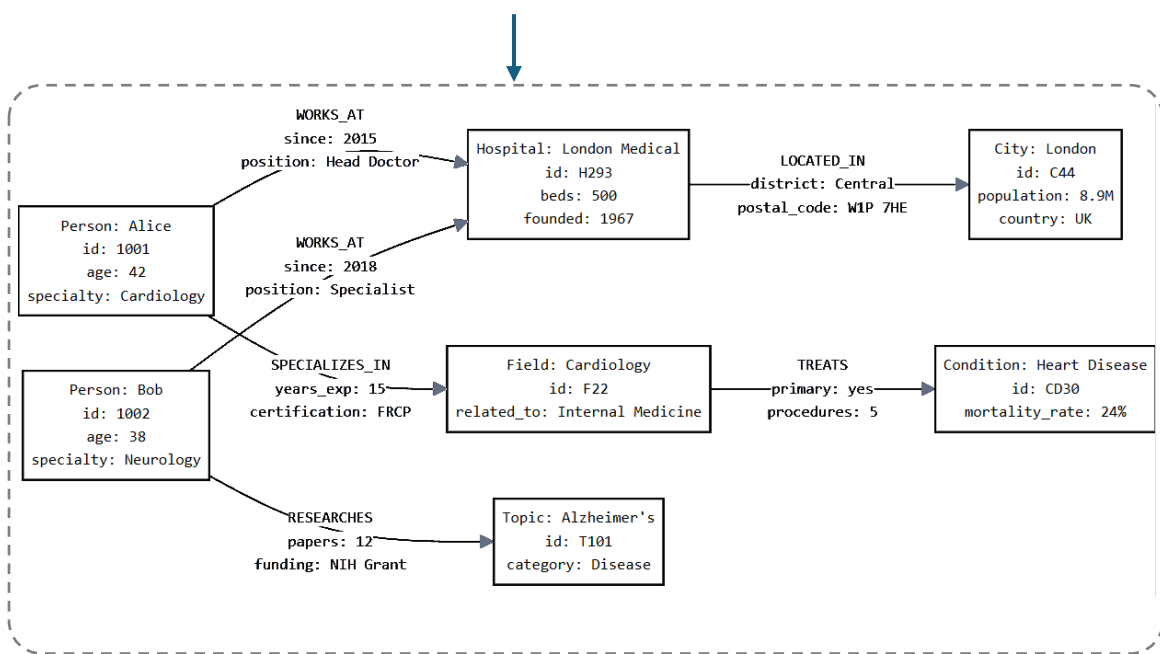


Hybrid Graph

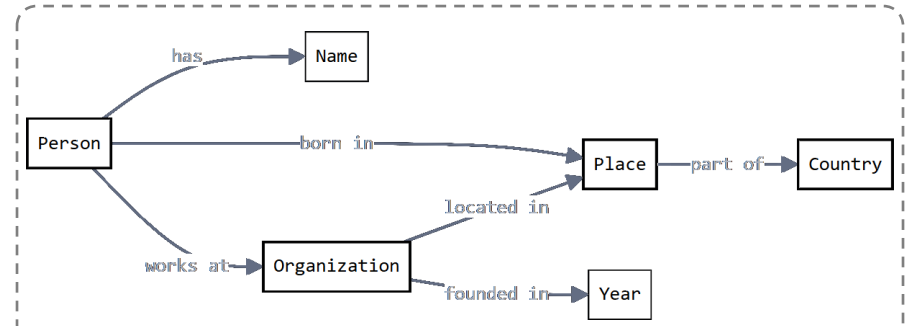


Graphs 101: Data Graphs

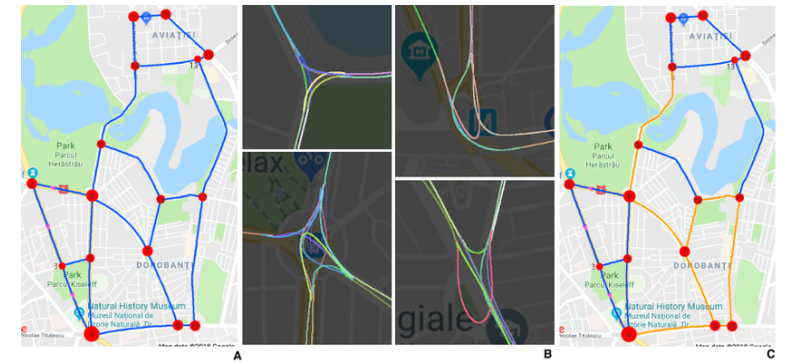
Data Graph Structure



Ontology (Knowledge Graph)

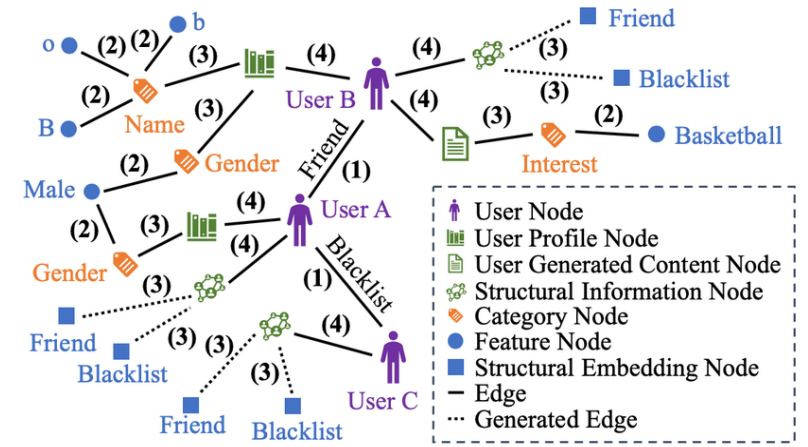


Map (Geographical)



From paper: *Driven by Vision: Learning Navigation by Visual Localization and Trajectory Prediction*

Social Network

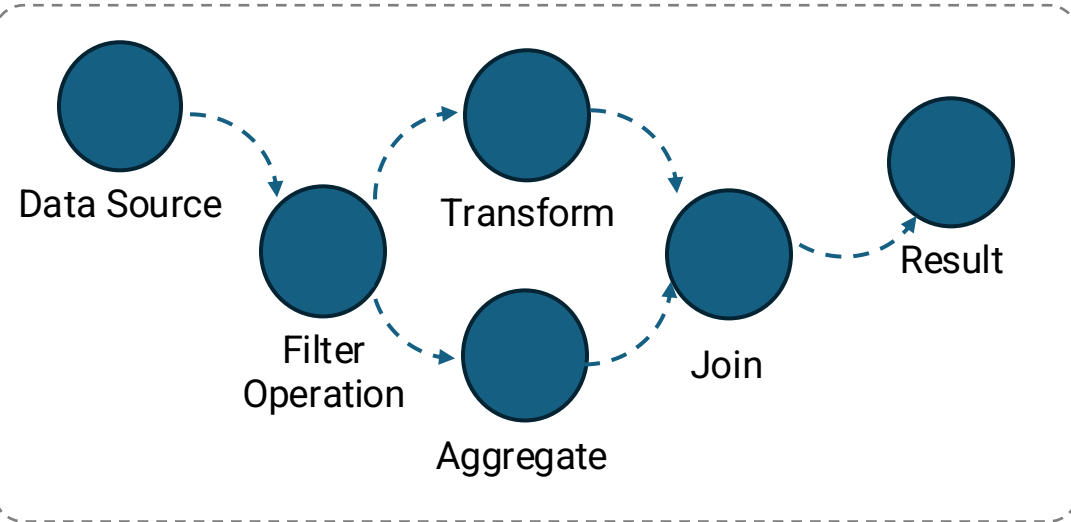


From paper: *User Identity Linkage Across Social Networks by Heterogeneous Graph Attention Network Modelling*

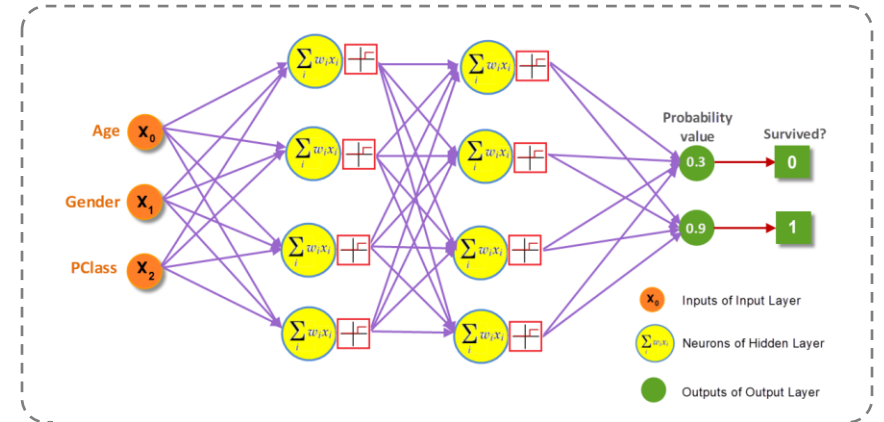


Graphs 101: Execution Graphs

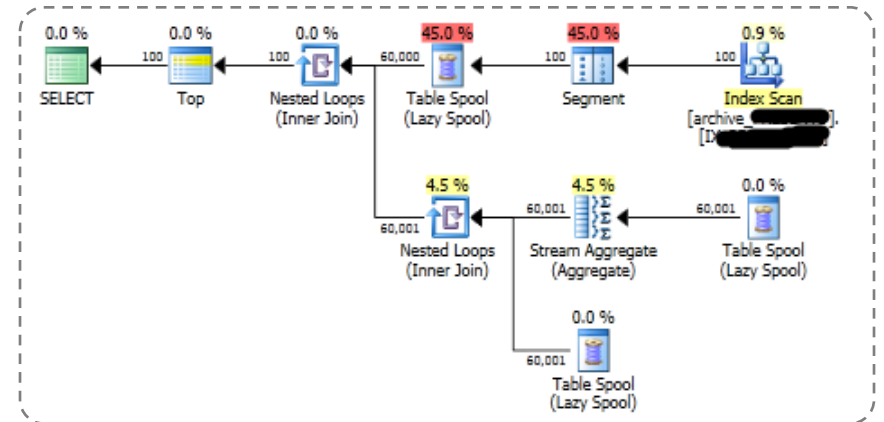
Execution Graph



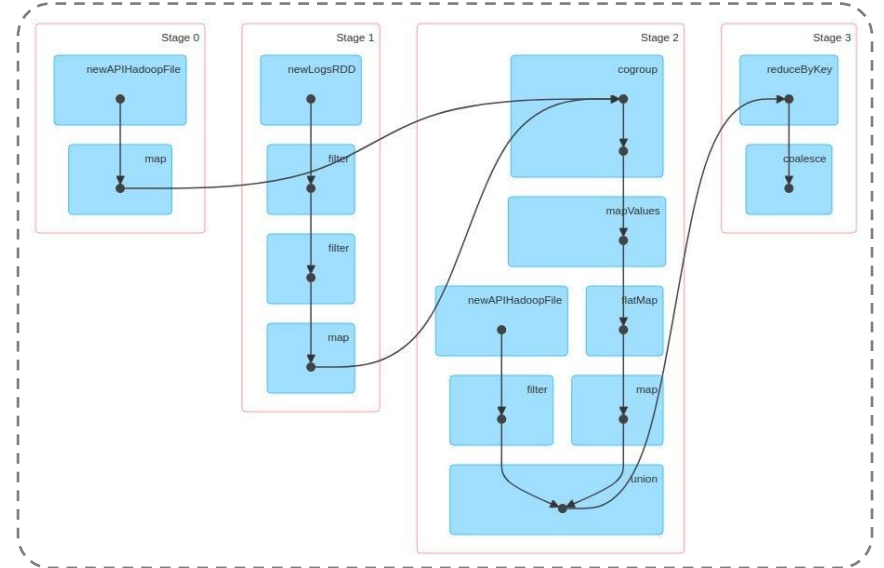
Neural Network (Layers, Activation Functions...)



SQL Query Plan (Tree)

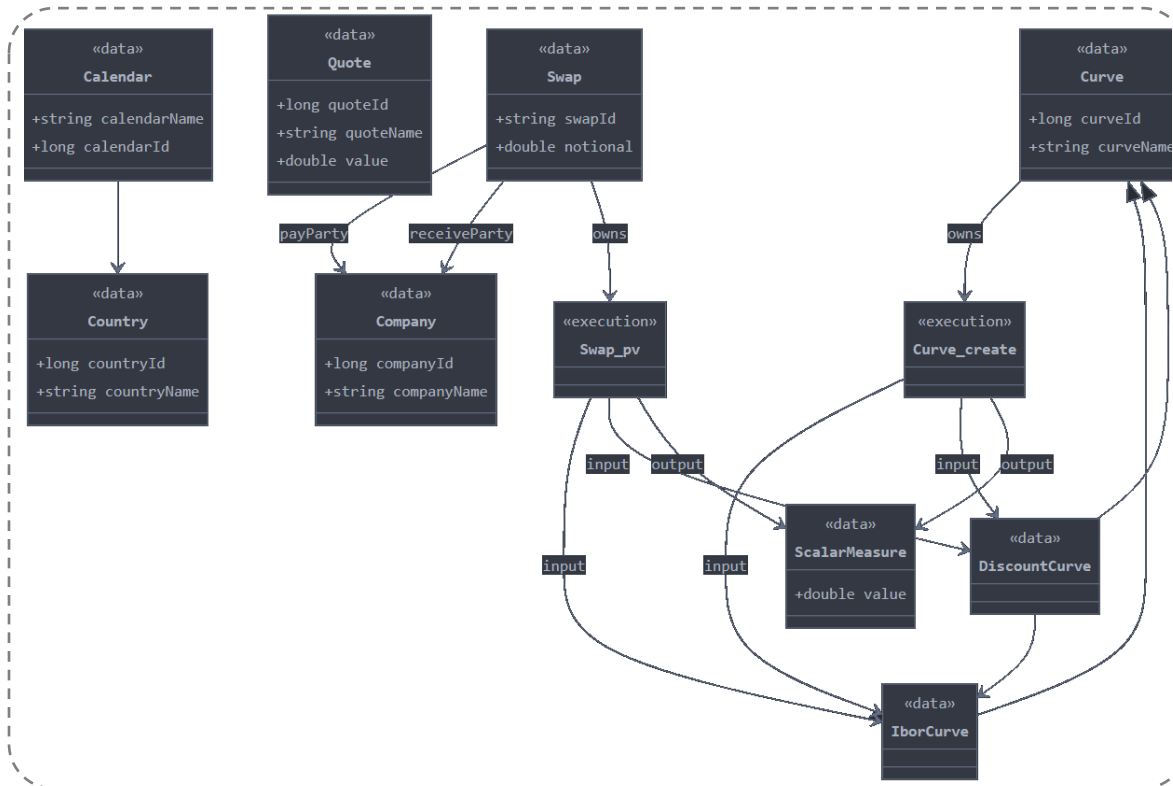


Spark (DAG)

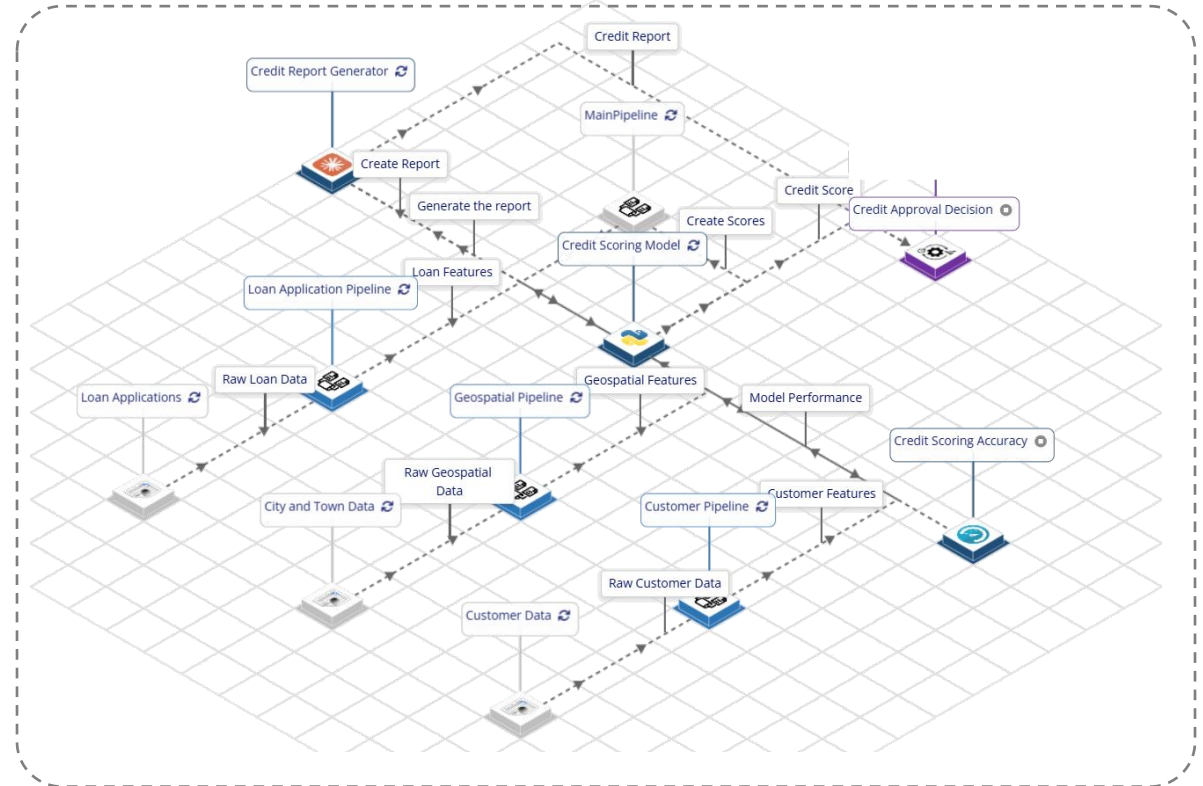


Graphs 101: Hybrid Graphs (including Data Object Graph)

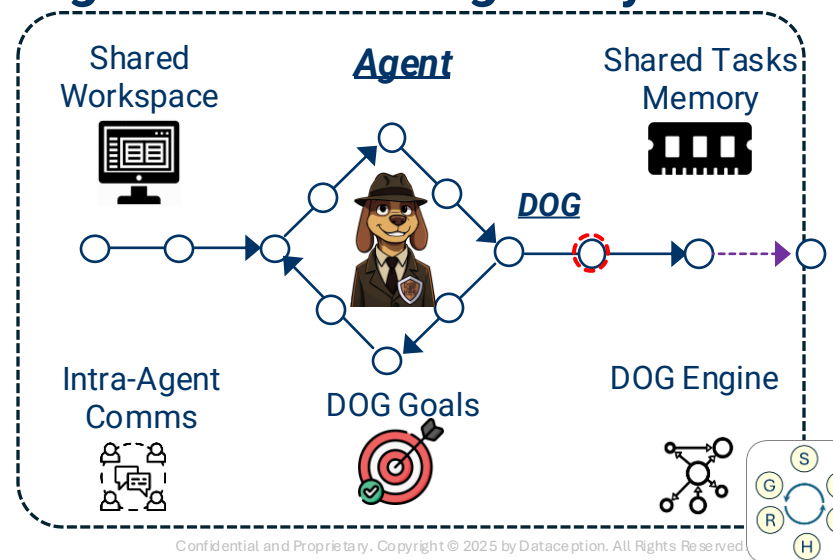
Data Object Graph: Risk System



DOG Example: Loan Credit Scoring

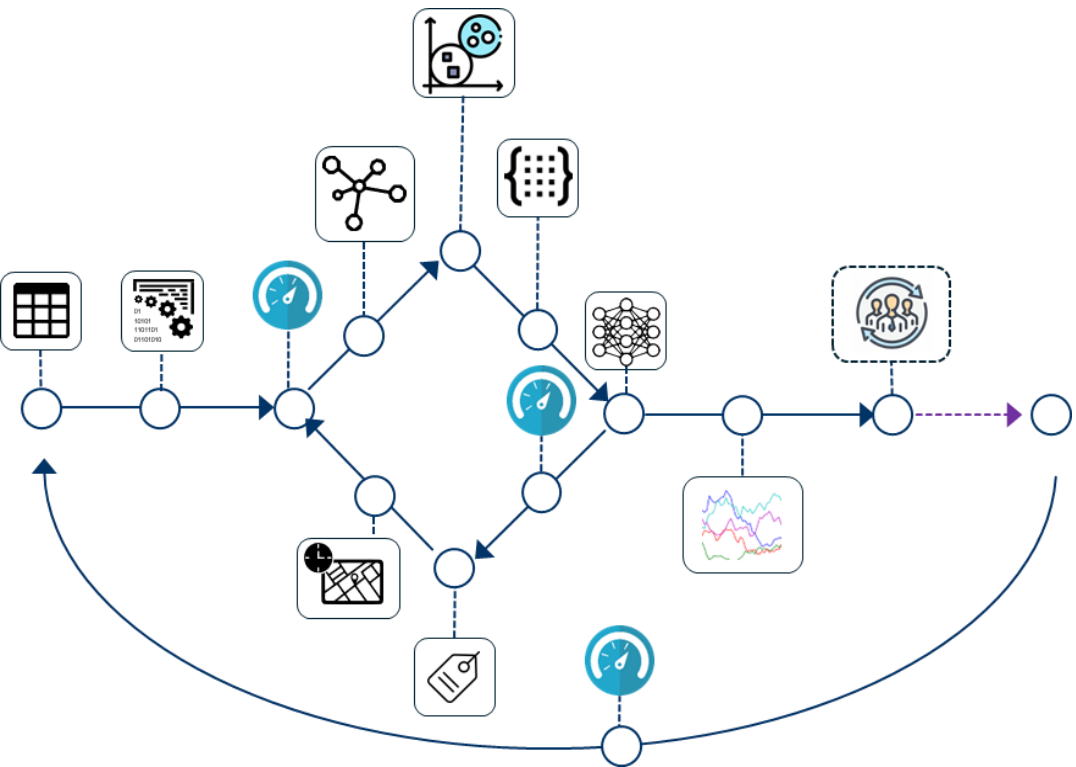


Agentic DOG: AI Agent System

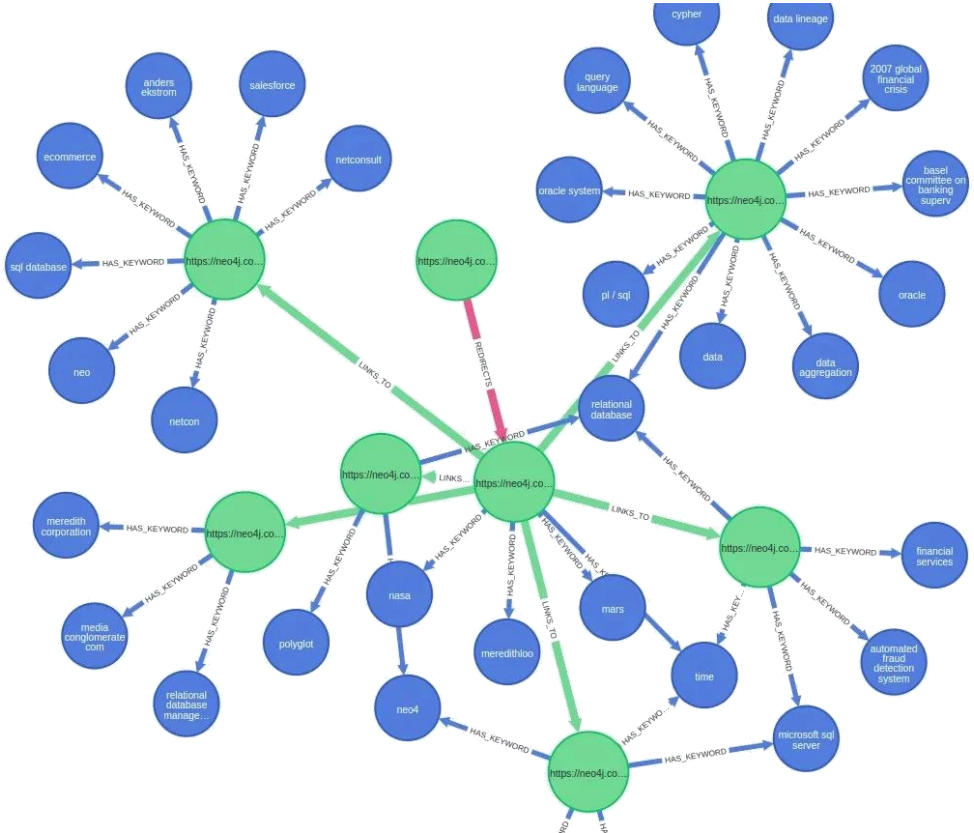


Difference between Data Object Graphs and Knowledge Graphs

Data Object Graph (DOG) (What things Do) (Bus Process Model + Execution)

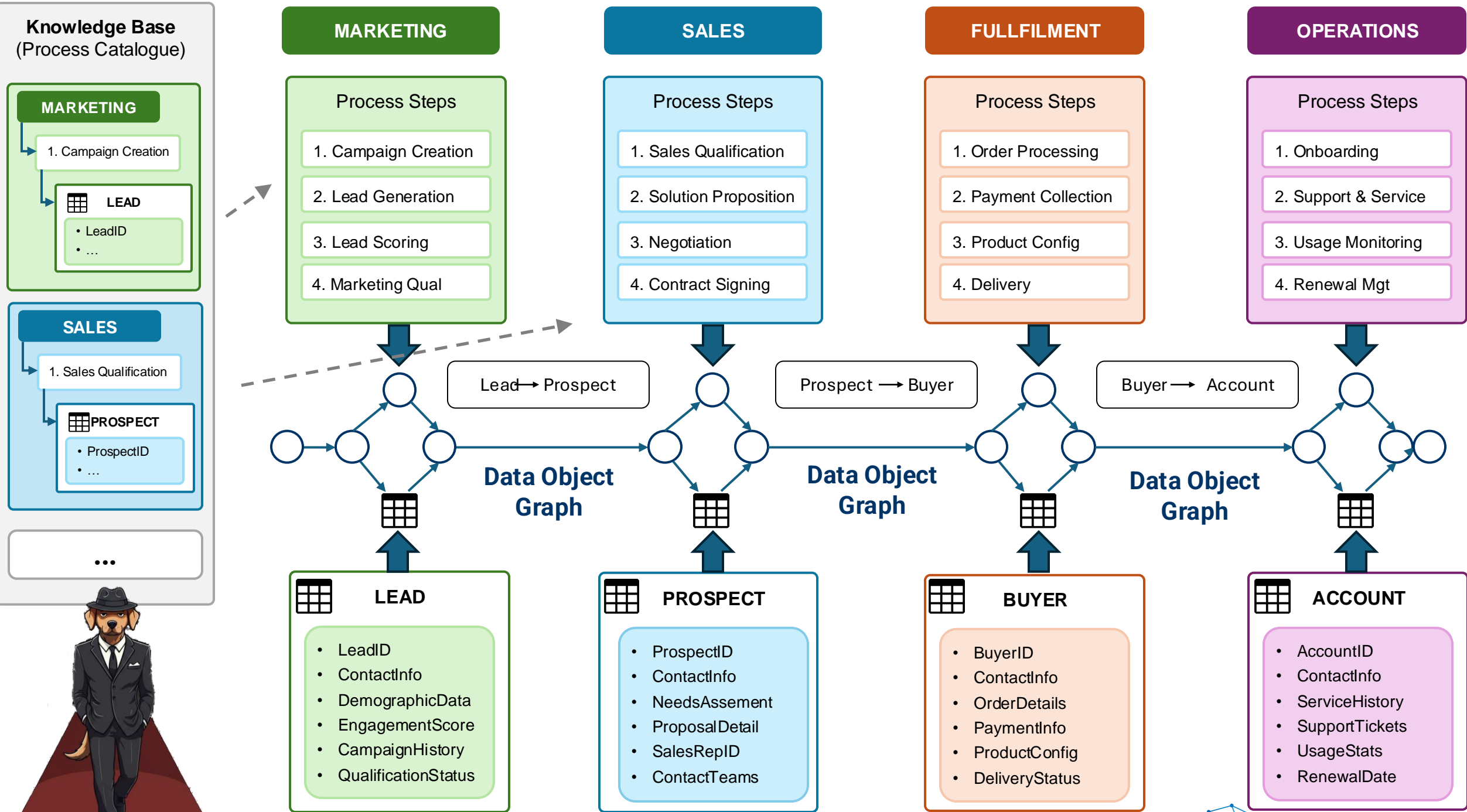


Knowledge Graph (What things Are)



Process Data Modelling With Data Object Graphs

Business Process (Functional Domains)



Business Data Entities

