



Automated OMOP Concept Mapping Using Multi-Agent Large Language Models and Graph-Enhanced Semantic Retrieval

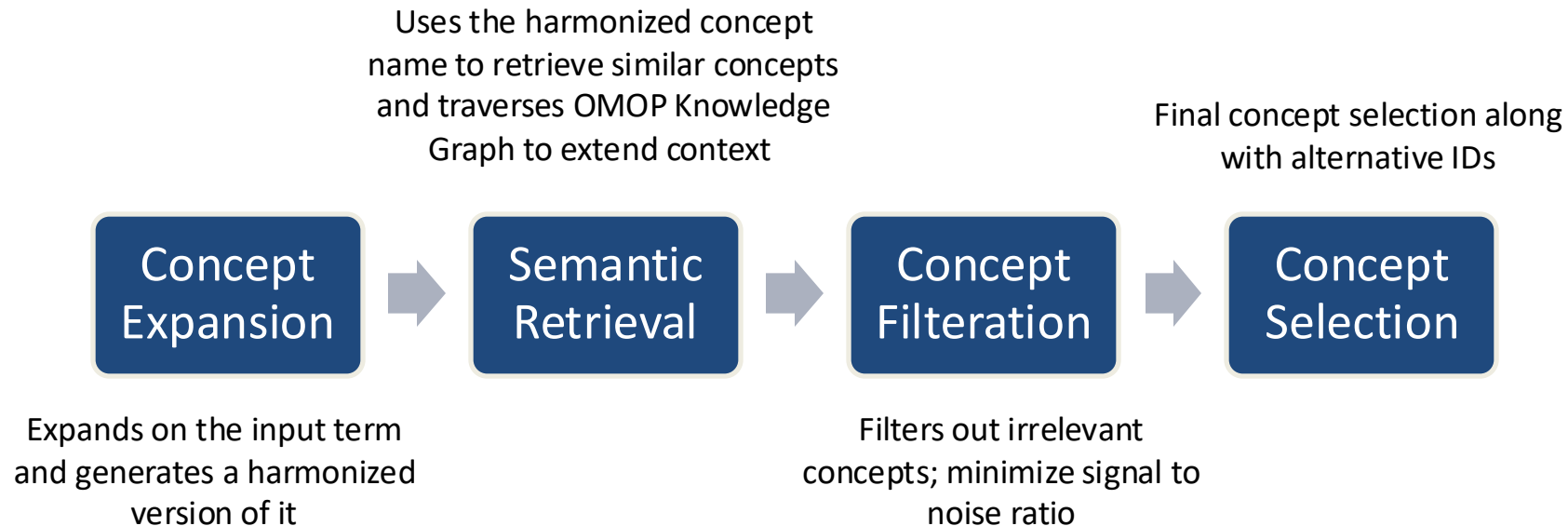
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Summary

A LLM-workflow that maps clinical terminologies to standard OMOP concepts. The pipeline consists of 4 stages:





Example

Input:

Label: METANEPHRINES [context: data_container=ORDER_RESULTS; data_field=COMPONENT_ID]

Output:

Key	Value
concept_id	3006956
concept_name	Metanephrines [Mass/volume] in Urine
concept_domain	Measurement
justification	The EHR label "METANEPHRINES" is an exact match to concept 3006956 "Metanephrines [Mass/volume] in Urine" which uses the plural form and is from the LOINC vocabulary in the Measurement domain. This is the most appropriate representation for lab test results in OMOP.
confidence	High
alternative_ids	[3021531, 3015737, 3012602, 3002456]



Pipeline Workflow

