Hands-on: OMOP CDM

OMOP Common Data Model Structure

Clinical Data	Standardized Vocabularies	Derived Tables
PERSON	**CONCEPT**	**COHORT**
VISIT_OCCURRENCE	VOCABULARY	COHORT_DEFINITION
CONDITION_OCCURRENCE	DOMAIN	DRUG_ERA
DRUG_EXPOSURE	CONCEPT_CLASS	CONDITION_ERA
PROCEDURE_OCCURRENCE	CONCEPT_RELATIONSHIP	OBSERVATION_PERIOD
MEASUREMENT	CONCEPT_ANCESTOR	

ETL → Analytics →

```
SELECT * FROM condition_occurrence WHERE condition_concept_id = 201826 -- Type 2 Diabetes
```
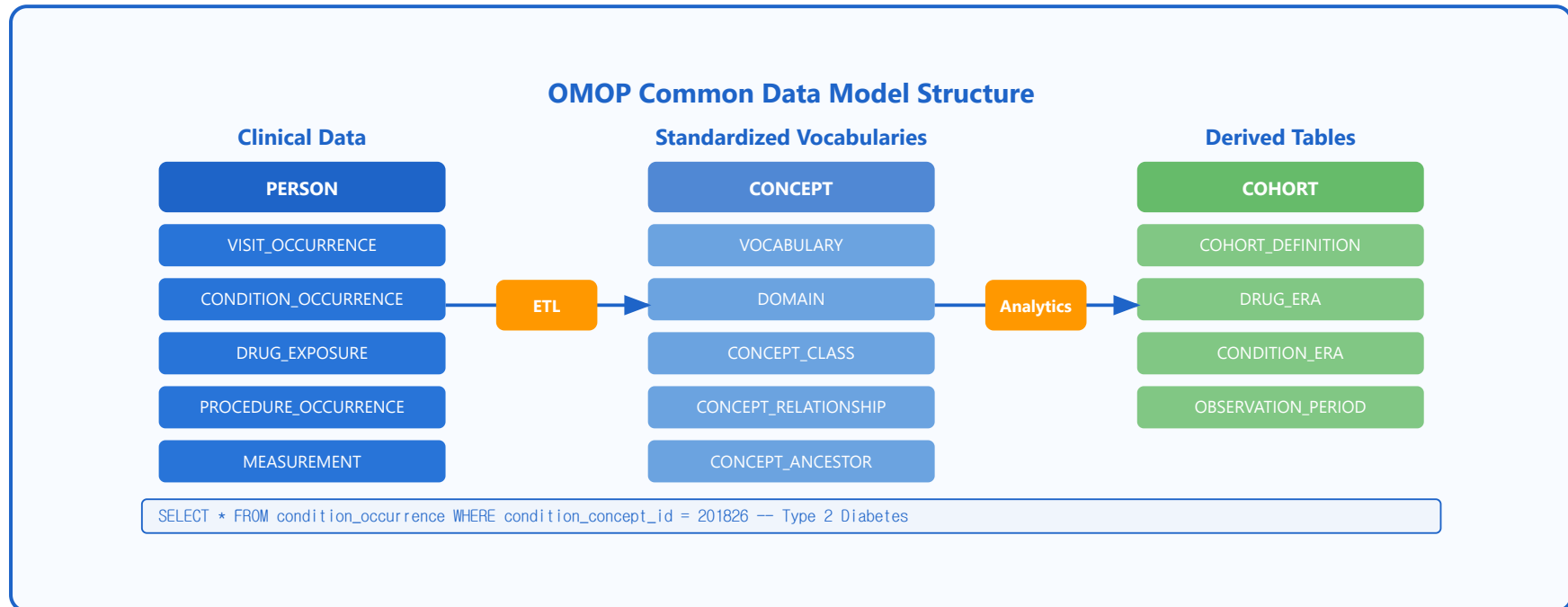
📊 Data Model

- Standardized table structure
- Person-centric design
- Temporal relationships
- Standard vocabularies
- Source value preservation

🔄 ETL Process

- Source to standard mapping
- Concept ID assignment
- Date standardization
- White Rabbit profiling
- Rabbit-in-a-Hat mapping

🛠️ OHDSI Tools

- ATLAS: Cohort builder
- ACHILLES: Data quality
- HADES: R packages
- PLP: Prediction models
- CohortMethod: Causal inference

📈 Example Analysis

- Define T2DM cohort
- Characterize demographics
- Compare treatments
- Predict outcomes
- Network studies