



From a bunch of Excel files to Data Integrity

Hugo Lundberg
DE24 – Datamodellering
2025-04-11

Problem

A bunch of Excel files

- Currently YrkesCo is using a handful of Excel files to keep track of fundamentally important information.
- The data is split up and stored in several locations.
- Hard to get an overview or to answer specific questions.
- Potential for errors and no way to ensure Data Quality.

Solution

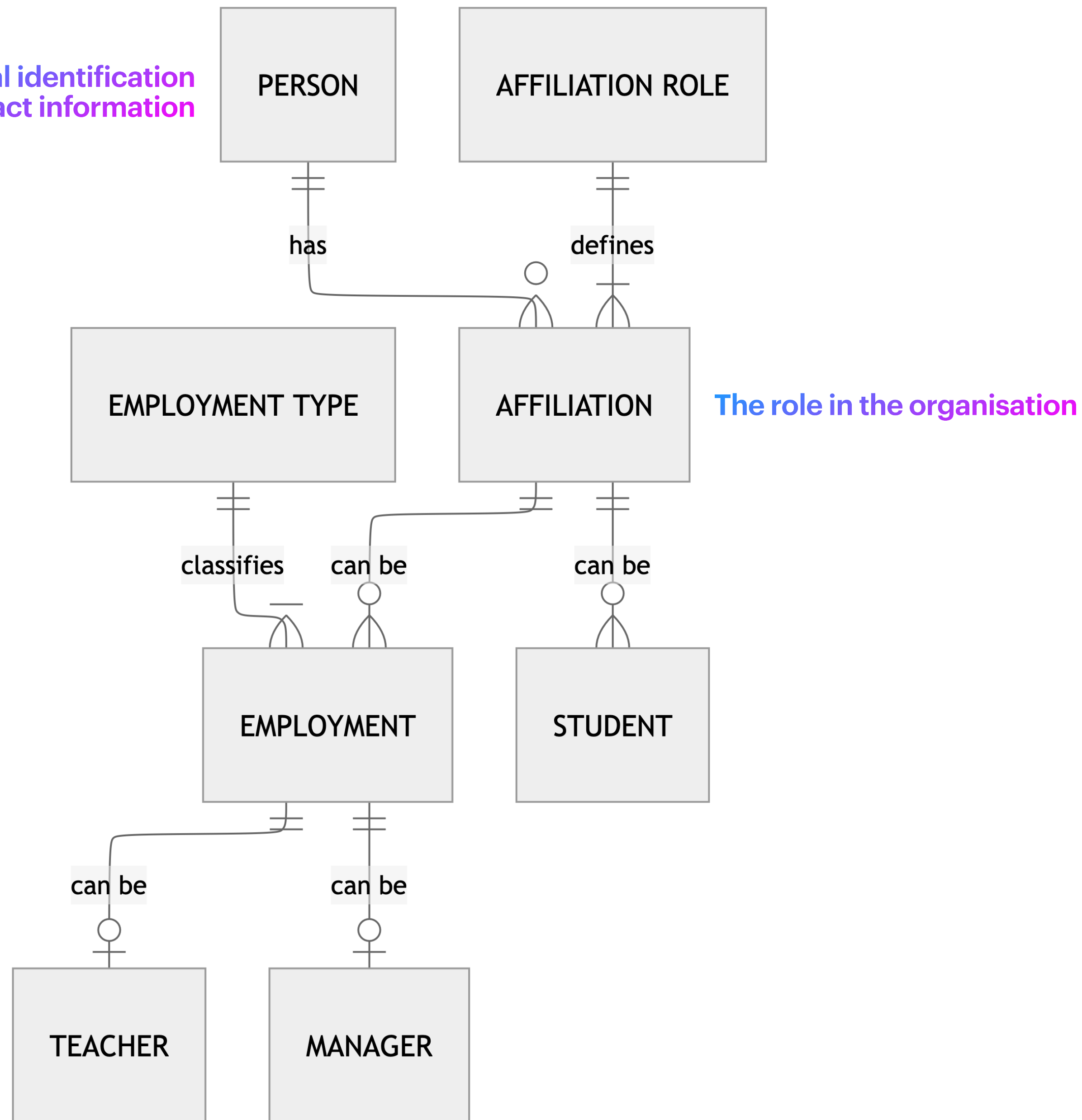
A Centralized Structured Database

- A single source of truth instead of multiple conflicting files.
- Reducing errors with built-in rules and checks to enforce data quality.
- Easily get the specific information needed, saving time and effort.
- Manage information the same way for all branches.
- Track changes over time. History for enrollments, staffing and changes to programs and courses.

How?

Students, Staff and Roles

Personal identification
Contact information



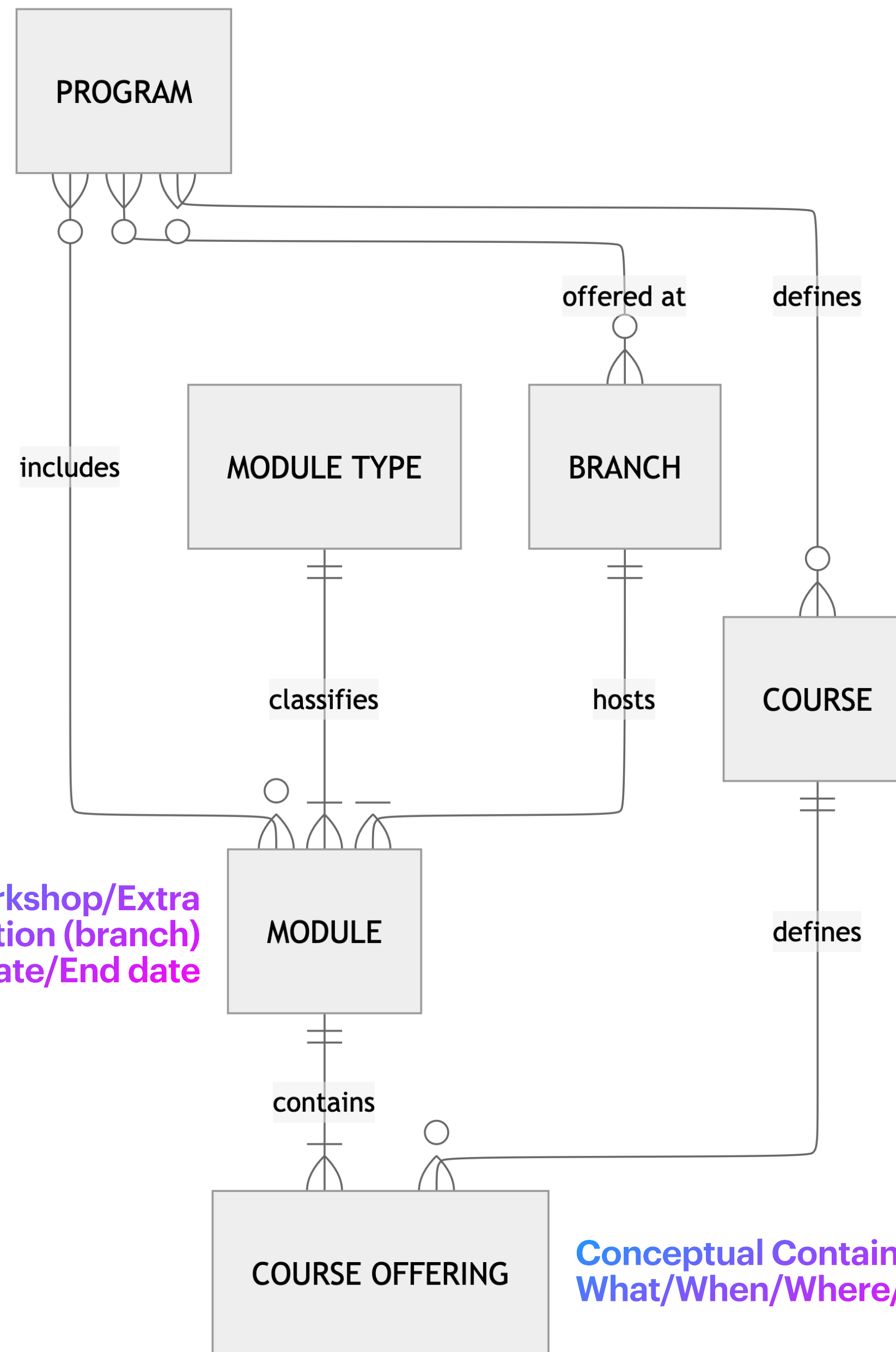
The role in the organisation

Branches, Programs and Courses

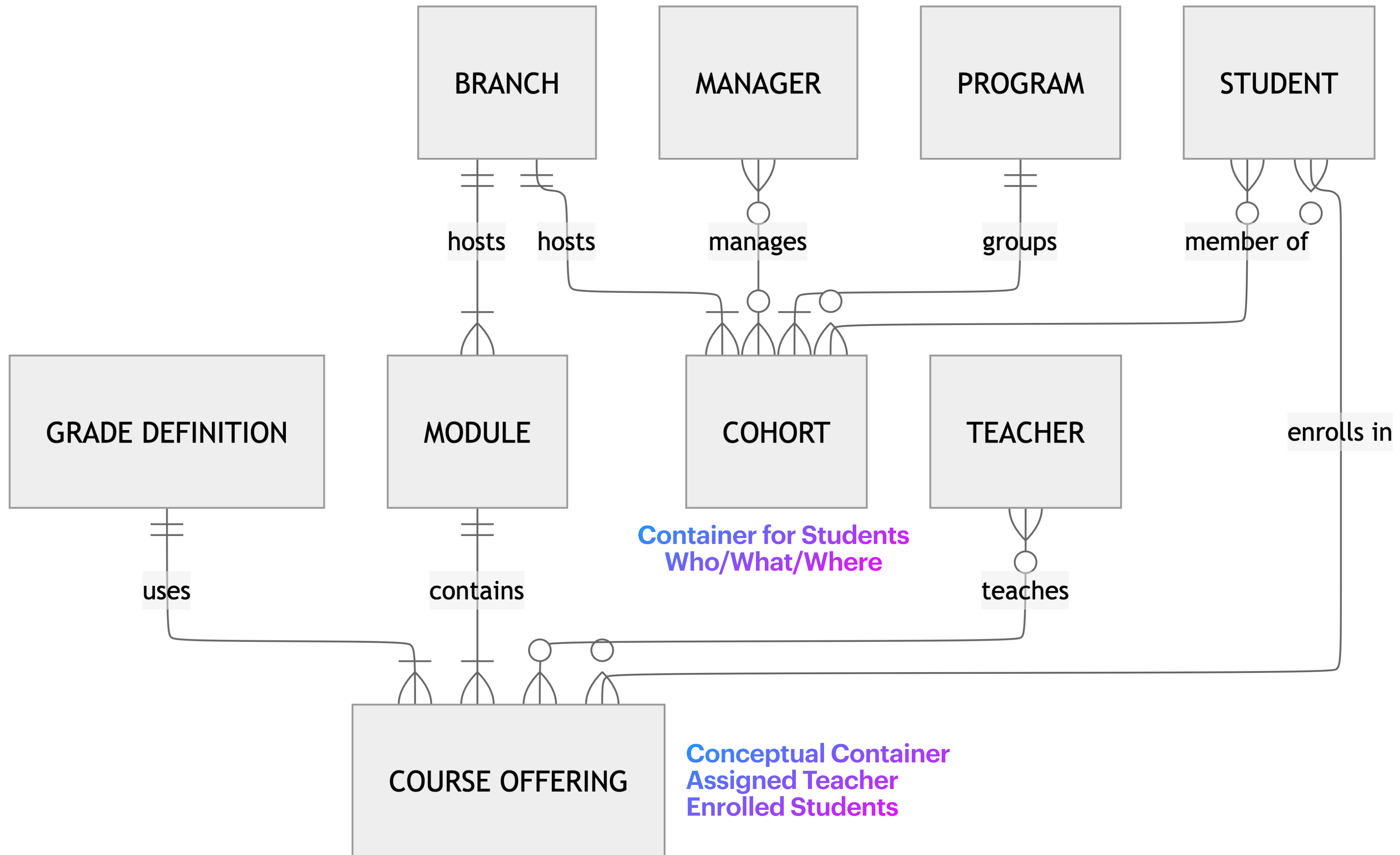
Container of Courses

Semester/Workshop/Extra
Location (branch)
Start date/End date

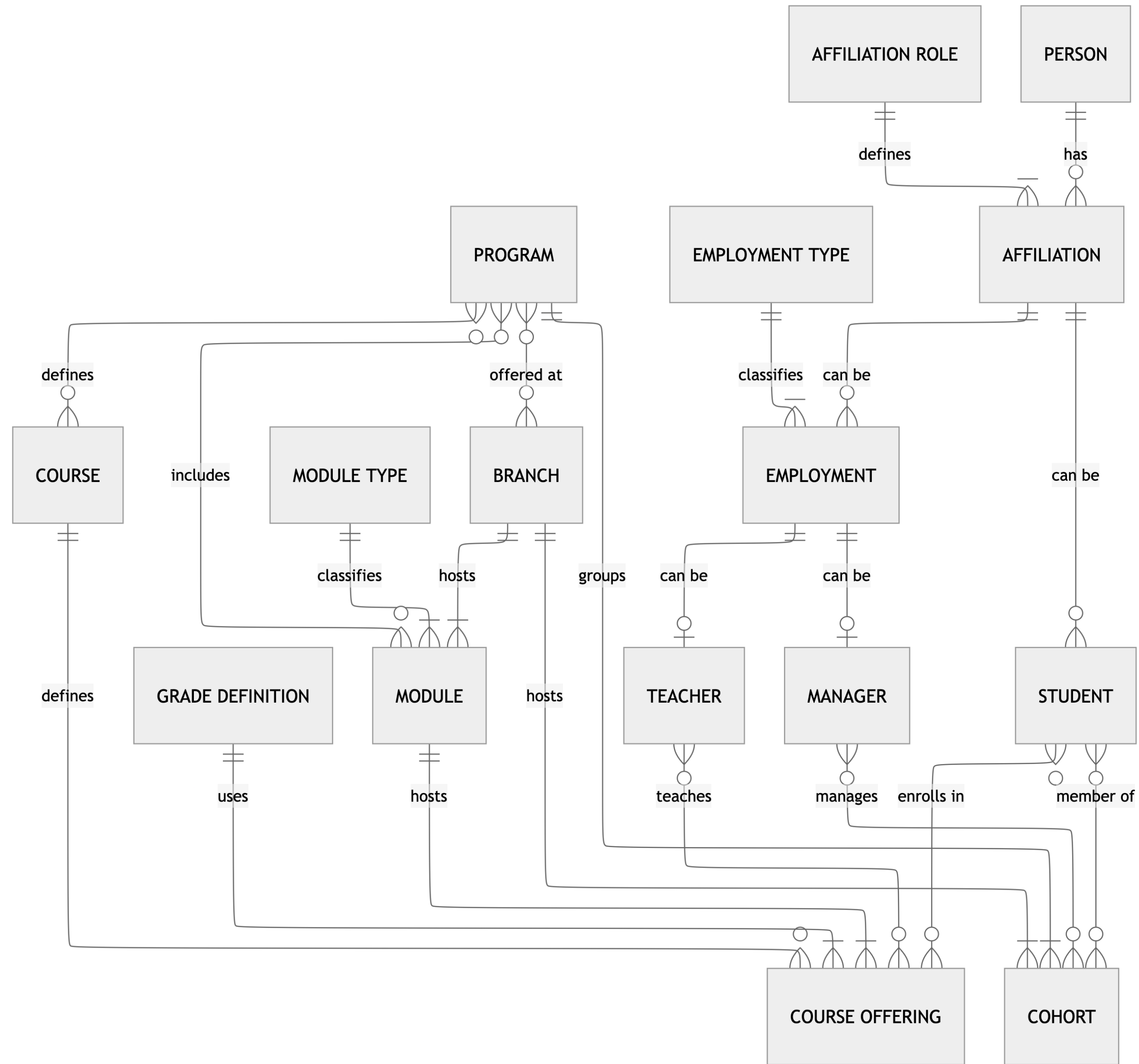
Conceptual Container
What/When/Where/Who



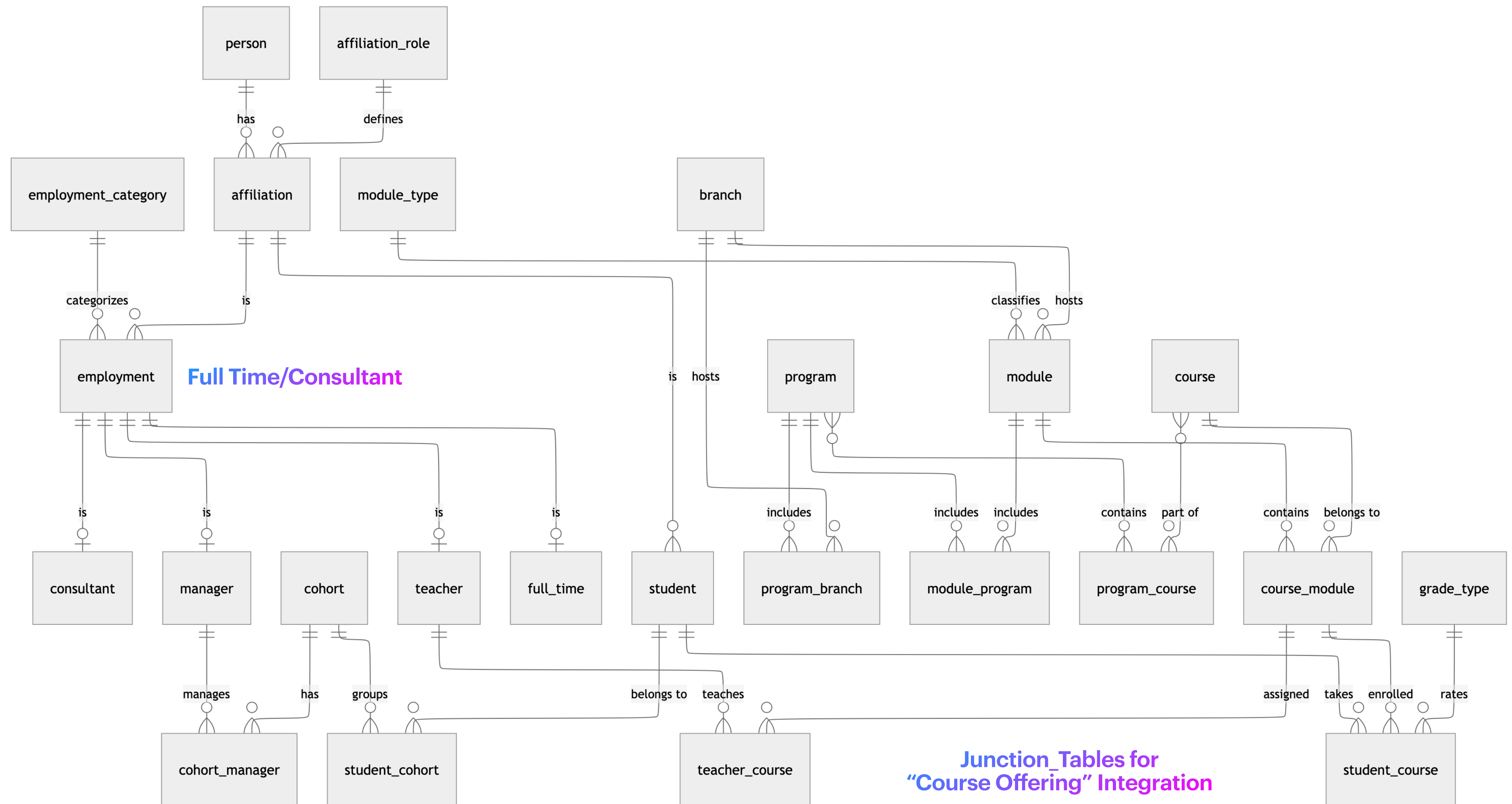
Classes, Teaching and Grades



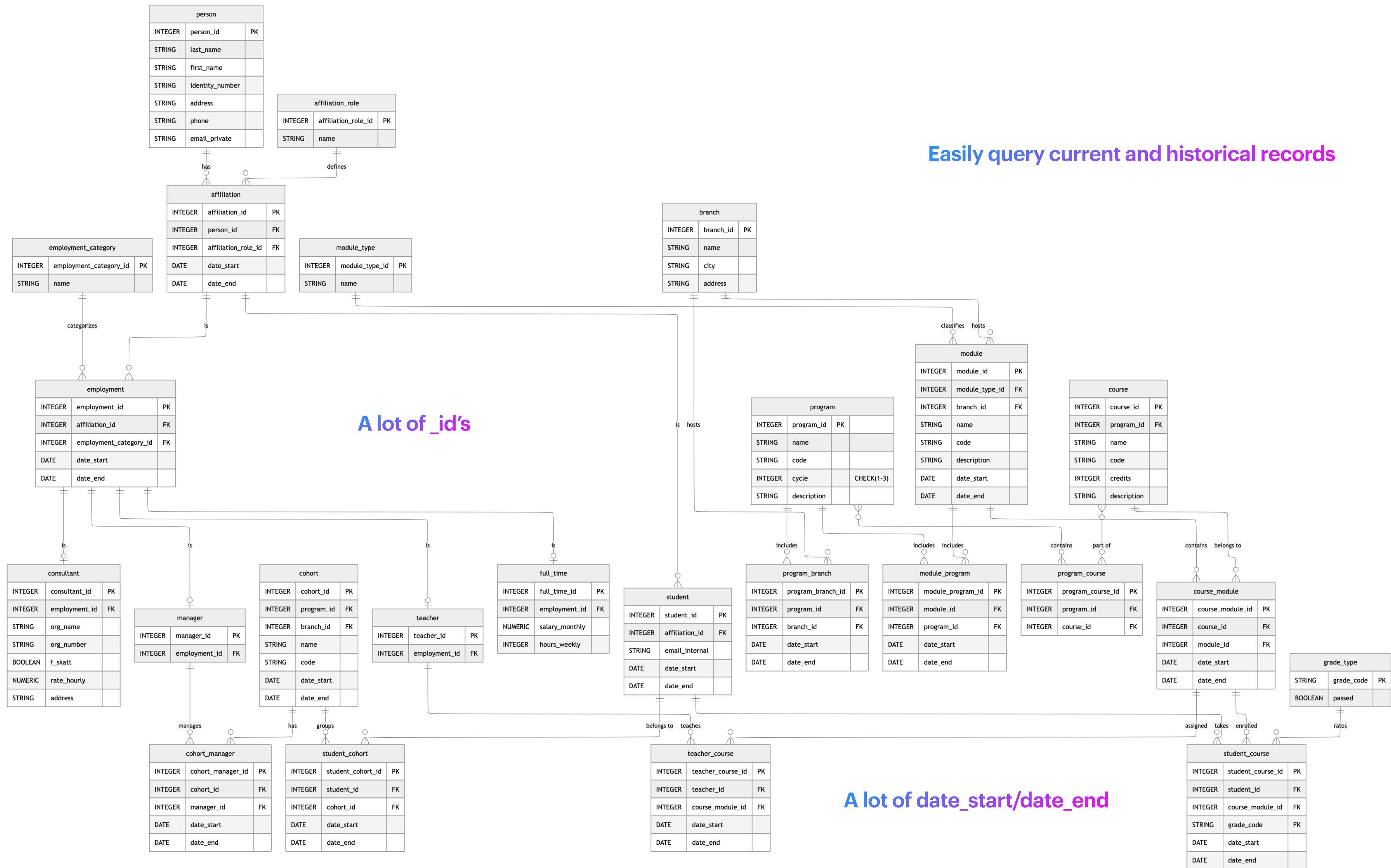
Everything together



Logical Implementation



Enteties and Attributes



Technical Implementation

Postgres 17

