Update Ontology Tables

How classic i2b2 works

The standard i2b2 star schema only allows for one fact table. In the i2b2 database this is the observation_fact table. When running a query in the i2b2, the CRC queries against the observation_fact table by default.

Update Metadata

The CRC needs to know the name of the fact table to search when a term is used in a query. This is done by updating the metadata tables for each term you want redirected to an alternate fact table. You need to update the value in c_facttablecolumn column to now be *facttablename.*columnname. Examples are provided below.

The good news is, you only need to update those terms you want to redirect to a different fact table. If the term is still going to the observation_fact table you do not need to update it. If a table name does not preface the column name the system will work as it does now and the observation_fact table will be searched.

Example:

concept_cd vs. lab_facts.concept_cd

The sample tables shown below are only displaying 5 of the 25 columns that are currently part of the i2b2 metadata tables.

Single fact table

This sample shows how the i2b2 metadata table is setup to work with a single fact table.

...	c_name	c_basecode	c_facttablecolumn	c_tablename	c_columnname	...
	Diabetes mellitus	ICD9:250.00	concept_cd	concept_dimension	concept_path	
	Amoxicillin	NDC: 559553071670	concept_cd	concept_dimension	concept_path	
	Hematocrit	LOINC:4544-3	concept_cd	concept_dimension	concept_path	
	X-Ray Report	LCS-i2b2: XR_RPT	concept_cd	concept_dimension	concept_path	

Multiple fact tables

In this sample, we take the above table and update it to point to multiple fact tables. The diagnoses are still going to the observation_fact table, the other three facts are going to one of these three new fact tables:

1. medication_fact (Amoxicillin)
2. lab_fact (Hematocrit)
3. diagnostic_fact (X-Ray Report)

Using this example the i2b2 metadata table would look like:

...	c_name	c_basecode	c_facttablecolumn	c_tablename	c_columnname	...
	Diabetes mellitus	ICD9:250.00	concept_cd	concept_dimension	concept_path	
	Amoxicillin	NDC: 559553071670	medication_fact. concept_cd	concept_dimension	concept_path	
	Hematocrit	LOINC:4544-3	lab_fact.concept_cd	concept_dimension	concept_path	
	X-Ray Report	LCS-i2b2: XR_RPT	diagnostic_fact. concept_cd	concept_dimension	concept_path	

In the above example, you will notice the entry for Diabetes does not have the prefix 'observation_fact.'. This is because it is not needed. If a prefix does not exist the system will automatically look to the observation_fact table.