Introduction

Project Summary

The data models of i2b2 and OMOP have many similarities. We take advantage of these similarities to construct an evolution of the i2b2 software that is able to adapt to the OMOP data model. This adaption of i2b2 allows the query formulation Application Programming Interface (API) to be implemented over an OMOP data source. Therefore, most of the functionality of i2b2 Software is preserved on OMOP data sources, and as a result the SHRINE and SMART-on-FHIR tools that rely on the i2b2 API are also able to run on the OMOP data model.

The standard i2b2 data model is comprised of a central fact table (observation_fact) surrounded by multiple dimension tables arranged in a star schema. In the Observational Medical Outcomes Partnership Common Data Model (OMOP CDM), rather than a central fact table, we have a collection of them distinguished by domain: procedures, condition, drug, measurement, observation, etc. In this project, we modify the CRC to run queries against multiple domain fact tables as dictated by the metadata.

The i2b2 1.7.09-RC1 software and data packages are designed to run with **OMOP version 5**. The sample metadata provided is intended to run queries against the **CMS SynPUF 1K data set** provided by OMOP. It is recommended that users of this software are familiar with OMOP and it is required that the synPUF data is installed.

About this Guide

The i2b2 on OMOP project enables the classic i2b2 Software to run against a database that uses the OMOP CDM (multiple fact tables). This guide along with the provided source code will help configure your system for OMOP CDM processing.

The **i2b2 on OMOP Installation Guide** is designed to assist users with installing and setting up an existing i2b2 environment to work with the OMOP CDM data.

Assumptions

This installation guide assumes the following:

- You have a working version of i2b2 that is running release 1.7.09 or higher.
- The i2b2 Admin module has been installed.
- Your CDM tables have been loaded with the CMS SynPUF 1k data set provided by OMOP
- The i2b2 data tables will be installed on the same database and schema as your OMOP CDM tables.

Important
If you are new to i2b2 or not familiar with how to install and setup the i2b2, we highly recommend you look at the i2b2 Installation Guide and go through the steps to setup the i2b2 demo environment.

Installation Process

It is important you follow this guide in the order the steps are written. Some steps need to occur before others in order to prevent issues down the road.

Order of Installation

Step 1: Software and system requirements

Step 2: Data Installation

Step 3: Configuring and Setting up the Software