

Data Modeling Software

- Drawing a Model
 - Entities, attributes, relationships, cardinality, optionality
 - Physical characteristics like data type & length
 - Constraints like PK, FK, Nullable
- Different tools support different capabilities
 - Some can only DRAW
 - Some capture the intelligence behind the drawing
 - Some can generate SQL DDL
 - Forward and reverse engineering

Data Modeling Software

- Different tools have different licensing models
 - Industrial Strength = Expensive
 - PowerDesigner from SAP
 - ERWin
 - ER/Studio from Idera
 - SPARX Enterprise Architect
 - IBM InfoSphere
 - TOAD Data Modeler
 - Visio Professional(?)
- Let's take a look
 - <https://www.datasciencecentral.com/profiles/blogs/top-6-data-modeling-tools>
 - http://www.databaseanswers.org/modelling_tools.htm

Data Modeling Software

- Different tools have different licensing
 - Free = less capable (mostly)
 - LucidChart – lovely drawings, but no intelligence
 - Free Trial – 15 or 30 days, then you pay
- Other concerns
 - Windows, Mac, Linux
 - Local install or cloud
 - Drawing Technique: CROWS FOOT (IE) versus IDEF1X versus UML
 - Data Modeling versus full blown Database Administration
 - Console versus SQL Editor



Data Modeling Software

Drawing your data models

- Reasonable Free Tools:
 - MySQLWorkbench Free, local install
 - Full capabilities
 - LucidChart – Free Trial, cloud
 - Drawing only, limited time
 - TOAD Modeler – Free Trial
 - Full capabilities, limited time, local install
 - Oracle SQL Developer – Free, local executable
 - Full capabilities (* but you need a database connection)
 - Astah ? Good reviews, free to students

Data Modeling Software

Drawing your data models

- My Recommendation:
 - MySQLWorkbench Free, local install
 - Full capabilities (for MySQL)