

CODY Data Services Engineer

Data Conversion Test

The goal of this test is to evaluate your skill in writing SQL to convert data from one system to another, simulating situations encountered during the development of a one-time conversion of agency data from a legacy (old) system into ours.

Remember: this is a one-time conversion. For this exercise, assume that the source system would be deprecated after the final conversion (once your scripts are used to convert data from the source into our schema); You do not need to plan for the ongoing translation of data changes from the source to the destination.

To keep thing simple so you can focus highlighting your SQL chops, we've modified a few details from the way things would be in a real conversion:

- The source database tables (and data) and destination database table are in the same MS SQL database (backup provided to you).
- The scope of this conversion test is limited to only cover Persons and their detail records, whereas a real law enforcement RMS data conversion involves hundreds of tables and many, many more objects (e.g. Incidents, Citations, Narratives, Offenses, Arrests, etc.).

You will need to stand up the provided MS SQL database backup and then write scripts/procedures/views/etc that show:

1. Your ability to reverse engineer a database and figure out what's where, how things work, when given limited information.
2. Your style and effectiveness in creating SQL scripts, procedures, views, or anything else you need to move the data from source table(s) to destination table(s).

In this exercise, you will be converting data from a normalized schema into a less-normalized schema. The source system splits person detail records across more “atomic” tables whereas the destination system stores all relevant information for a person in one row/record.

Destination System:

- Schema: dst
- Tables: Mastname

Source System:

- Schema: src
- Tables: PersonTable, Phone, PersonIdentifierTable, PersonPhysicalFeatureTable, CodeBuild, CodeComplexion, CodeEthnicity, CodeEyeColor, CodeHairColor, CodeRace, CodeSex, CodeWarning

Database Credentials :

- User : TestUser
- Password : C0nv3rtTh1s!

Tasks:

1. Create dst.Mastname records from records in src.PersonTable.
2. Use src.Phone to get phone numbers for people, converting phone numbers into dst.Mastname.
 - a. Home phones --> Phone1, Phone1_Extension
 - b. Cell phones --> Phone2, Phone2_Extension
 - c. Work phones --> Phone3, Phone3_Extension
3. Use PersonPhysicalFeatureTable to get physical attribute values for people. Note that each Mastname record for a person should contain the most recent physical attribute values for that person.
4. Use PersonIdentifierTable to get identification number data for people.