



Loading Data

Objective(s)

At the end of this lab you will be able to:

- Read data from a CSV files and load it into database

Exercise

When loading data ifrom a CSV file you need to ensure the data in the dataset maps to the correct datatype and format in the database. One area that can be particularly problematic is DATES, TIMES, and TIMESTAMPS because their formats can vary significantly.

In case the database does not automatically recognize the datatype or format correctly, or the default setting does not match, you will need to manually correct it before loading otherwise you may see an error like the one below when you try to LOAD:

Load details

!

WARNING

0 warning

My computer

Chicago_Crime_Data-v2.csv

Target

QWX76809.CRIME

View Table

Load More Data

Status

Settings

533

Rows read

0

Rows loaded

533

Rows rejected

Start time

03/15/2020 4:21:43 PM

End time

03/15/2020 4:21:46 PM

The data load job completed with errors.

To investigate, click the **Errors** tab or [load log](#).

Errors 533

Warnings 0

Download

0180: The syntax of the string representation of a datetime value is incorrect. SQLSTATE=22007 [\(More info\)](#)
Number of occurrences: 533

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In order to prevent such errors when loading data, in the Db2 console you can preview the datatype and format of the automatically identified values with the values in the datasets in the LOAD screen such as the one below. If there is an issue, it is usually identified with an Warning icon (red triangle with an exclamation mark) next to the datatype of the column (e.g. DATE column in the example below). To correct this, you may first need to click on the "Clock" icon next to the "Time and Date format" to see the formats, if they are not already visible.

Source

Target

Define

Finalize

You are loading the file **Chicago_Crime_Data-v2.csv** into **QWX76809.CHICAGO_CRIME_DATA**

Code page (character encoding):
1208 (UTF-8)

Separator:
,

Header in first row:
☒

Time & date format:
Time & date format:

Timestamp format does not match data...

Detect data types:
☒

Date format:
YYYY-MM-DD

Time format:
HH:MM:SS

Timestamp format:
YYYY-MM-DD HH:MM:SS

| ID INTEGER | CASE_NUMBER VARCHAR(8) | DATE TIMESTAMP | BLOCK VARCHAR(35) | IUCR VARCHAR(4) | PRIMARY_TYF VARCHAR(15) |
|---------------|---------------------------|------------------------|--------------------------|--------------------|----------------------------|
| 1 | 3512276 | 08/28/2004 05:50:56 PM | 047XX S KEDZIE AVE | 890 | THEFT |
| 2 | 3406613 | 06/26/2004 12:40:00 PM | 009XX N CENTRAL PARK AVE | 820 | THEFT |
| 3 | 8002131 | 04/04/2011 05:45:00 AM | 043XX S WABASH AVE | 820 | THEFT |
| 4 | 7903289 | 12/30/2010 04:30:00 PM | 083XX S KINGSTON AVE | 840 | THEFT |
| 5 | 10402076 | 02/02/2016 07:30:00 PM | 033XX W 66TH ST | 820 | THEFT |
| 6 | 7732712 | 09/29/2010 07:59:00 AM | 006XX W CHICAGO AVE | 810 | THEFT |
| 7 | 10769475 | 11/30/2016 01:15:00 AM | 050XX N KEDZIE AVE | 810 | THEFT |
| 8 | 4494340 | 12/16/2005 04:45:00 PM | 005XX E PERSHING RD | 860 | THEFT |
| 9 | 3778925 | 01/28/2005 05:00:00 PM | 100XX S WASHTENAW AVE | 810 | THEFT |
| 10 | 3324217 | 05/13/2004 02:15:00 PM | 033XX W BELMONT AVE | 820 | THEFT |

Back

Next

First check if there is a pre-defined format in the drop down list that matches the format the date/time/timestamp is in the source dataset. If not, type the correct format. Upon doing so, the Mismatch Warning (and exclamation sign) should disappear. In this example below we changed/overwrote the default Timestamp format of **YYYY-MM-DD HH:MM:SS** to **MM/DD/YYYY HH:MM:SS TT** to match the value of **08/28/2004 05:50:56 PM** in the dataset.

Code page (character encoding):
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Separator:
,

Header in first row:
☒

Time & date format:
Time & date format:

Timestamp format does not match data...

Detect data types:
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Date format:
YYYY-MM-DD

Time format:
HH:MM:SS

Timestamp format:
MM/DD/YYYY HH:MM:SS TT

| ID INTEGER | CASE_NUMBER VARCHAR(8) | DATE TIMESTAMP | BLOCK VARCHAR(35) |
|---------------|---------------------------|------------------------|----------------------|
| 1 | 3512276 | 08/28/2004 05:50:56 PM | 047XX S KEDZIE AVE |

Good luck!

Author(s)

[Rav Ahuja](#)

Changelog

| Date | Version | Changed by | Change Description |
|------------|---------|------------|---|
| 2020-08-27 | 0.2 | Simran | Migrated Lab to Markdown and added to course repo in GitLab |