



# 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

 Warnings 0 warning	My computer Chicago_Crime_Data-v2.csv	Target QWX76809.CRIME	<a href="#">View Table</a>	<a href="#">Load More Data</a>
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Status

Settings

533

0

533

Rows read

Rows loaded

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

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.

https://cf-courses-data.s3.us.cloud-object-storage.appdomain.cloud/IBMDDeveloperSkillsN... 1/2

Source

Target

Define

Finalize

You are loading the file Chicago\_Crime\_Data-v2.csv into QWX76808.CHICAGO\_CRIME\_DATA

Code page (character encoding):1208 (UTF-8)Separator: ,Header in first row:☒Time & date format:Detect data types:☒

Date format: YYYY-MM-DDTime format: HH:MM:SSTimestamp format: YYYY-MM-DD HH:MM:SSTimestamp format does not match data.

ID INTEGER	CASE_NUMBER VARCHAR(8)	DATE TIMESTAMP	BLOCK VARCHAR(35)	IUCR VARCHAR(4)	PRIMARY_TYPE 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	07/13/2010 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

BackNext

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):1208 (UTF-8)Separator: ,Header in first row:☒Time & date format:MM/DD/YYYY HH:MM:SS TT

Date format: YYYY-MM-DDTime format: HH:MM:SSTimestamp 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

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