

Hands-on Lab : Upload and Export using Db2 on Cloud

Estimated time needed: 15 minutes

In this lab, you will learn how to upload and export data in a table using Db2 on Cloud.

Objectives

After completing this lab, you will be able to use the Db2 on Cloud to:

- Upload data onto a table in Db2
- Export data from Db2

Software Used in this Lab

In this lab, you will use [IBM Db2 Database](#). Db2 is a Relational Database Management System (RDBMS) from IBM, designed to store, analyze, and retrieve the data efficiently.

IBM Db2

To complete this lab you will utilize a Db2 database service on IBM Cloud. If you did not complete the lab below earlier, you may not have access to Db2 on Cloud and should complete that lab before starting this lab.

- [Hands-on Lab : Sign up for IBM Cloud and Create Db2 service instance](#)

Database Used in this Lab

The first dataset used in this lab comes from the following source: <https://dataplatform.cloud.ibm.com/exchange/public/entry/view/5562ced564e776edc5f91e13d48d8309?context=cpdaas>. This dataset is published by **IBM**, and Contains point data for a sample list of hospitals in US. Note that this is sample data for SQL demo purpose and is not necessarily current or accurate.

Exercise 1: Upload Data into a Table

In this example exercise, you will go through an example on how to create a table structure on the Db2 UI and upload data into it.

First, you'll want to go ahead and download the dataset you are going to use in this lab. You can do so by clicking on the following: [hospitals.csv](#)

Now that you have the file on your local machine, let's get started with uploading it onto Db2.

1. Open up and sign into the [IBM Cloud](#).
2. On the tab on the left side of the webpage, click the **Resource list** button.
3. Under the **Services and software** subsection, find and select the Db2 database. It will be titled some variation of "Db2-xx" where xx is some combination of letters and numbers.



1

Resource list



Name



Group

Filter by name or IP address...

Filter by group or org...

Container Registry (0)

Satellite (0)

Cloud Foundry apps (0)

Cloud Foundry services (0)

Services and software (5)

2

Db2-qk

Default



KnowledgeCatalog

Default



WatsonMachineLearning

Default



WatsonOpenScale

Default



WatsonStudio

Default

Storage (1)



CV Studio

Default

Network (0)



[Resource list](#) /

Db2-qk

✓ Active

Add tags

Manage

Getting started

Service credentials

Connections

Getting started

Where can I find my credentials?

Get your username and password by clicking link to the left and selecting "New Credential"

Go to UI



Getting started docs

6. Either drag and drop the *hospitals.csv* file you downloaded at the beginning of this lab or click **Browse files** to select it on your machine.

IBM Db2 on Cloud

SQL

Load Data

Load History

Tables

Views

Indexes

Al

Source

Target

Select a data source

1

My Computer

A single delimited text file (CSV) without header row.

S3 Amazon S3

Cloud Object Storage

File selection

7. Once loaded, you will see the file displayed on the right and the **Next** button at the bottom right of the page will turn blue. When ready, click the **Next** button to continue.



Load Data

Load History

Tables

Views

Indexes

Al



SQL

☒ Source☐ Target

You are loading the file **hospitals.csv**

My Computer

A single delimited text file (CSV) without header row.

Amazon S3

Cloud Object Storage

File selection



10. Enter a name for the new table. A good option is “HOSPITALS”. Then click the blue “Create” button.



11. After creating the table, you will see the “Next” button at the bottom right of the webpage turn blue. Click this button to move on to the next step.

12. As you can see, the data from the *hospitals.csv* file is displayed here and columns were automatically created in the new table with the appropriate data type for that column. To move on, click the blue **Next** button.



Load Data

Load History

Tables

Views

Indexes

Al



SQL





Source



Target

You are loading the file **hospitals.csv** into **BNX44073.HOSPITALS**

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

ID

SMALLINT

NAME

VARCHAR(50)

1

1

Southern Hills Medical Center

2

2

Sycamore Shoals Hospital

3

3

Tokona Hospital

4

4

University of Tennessee Child Development Center

5

5

Volunteer General Hospital

6

6

West Side Hospital

7

7

William L Bork Memorial Hospital

8

8

All Saints Hospital

9

9

Beaumont Army Hospital

10

10

Burns Hospital



SQL

☒ Source☒ Target

You are loading the file **hospitals.csv** into **BNX44073.HOSPITALS**

Review settings

Summary

Code page: 1208 (Default)

Separator: , (Default)

Time format: HH:MM:SS (Default)

Date format: YYYY-MM-DD (Default)

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

String delimiter: (Default)



Load Data

Load History

Tables

Views

Indexes

All



Load details

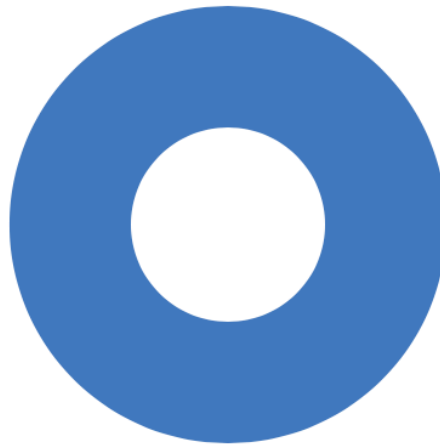
SQL

**WARNING**
96 warnings

My computer	Target
hospitals.csv	BNX44073.HOSPITALS

Status

Settings

**6,501**

Rows read

6,501

Rows loaded

0

Rows rejected

Start time
10/06/2021 1:43:41 PM

End time
10/06/2021 1:43:45 PM



The



Load Data

Load History

Tables

Views

Indexes

All



SQL



BNX44073.HOSPITALS

	ID SMALLINT	NAME VARCHAR(50)	CITY VARCHAR(50)
1	1	Southern Hills Medical Center	BERKELEY
2	2	Sycamore Shoals Hospital	ELIZABETH
3	3	Tokona Hospital	GREEK
4	4	University of Tennessee Child Development Center	DOWNTOWN
5	5	Volunteer General Hospital	MARTIN
6	6	West Side Hospital	BELL
7	7	William L Bork Memorial Hospital	COLLEGE
8	8	All Saints Hospital	FORT
9	9	Beaumont Army Hospital	CENTRAL
10	10	Burns Hospital	CUEFORD
11	11	Club of Christ Hospital	JEFFERSON
12	12	Danforth Memorial Hospital	TEXAS
13	13	Eldridge Memorial Hospital	FIRST



Exercise 2: Export a Table from Db2

In Exercise 1, you learned how to upload data from a file into a Db2 database. Now in this exercise, you will gain hands-on experience in the inverse of this. Using the Db2 UI, you will export a table from the database into a csv file. In particular, you will export a Db2 System Table called **SYSTABLES**, which stores metadata about all other database objects. We won't get

into much detail about System Tables in this lab as it will be covered in more depth in a later lab. For now, we can treat it as just a table we wish to export. Let's get started.

1. First, click the **SQL** button on the left tab of the webpage.
2. Click the blue **Create new** button to enter a custom SQL script.

☰

Run SQL

🔗

Choose script so... Open a script to e...

SQL 1

From file ↗

Create new + 2

🔗

🔍

Templates

Choose a template to start your SQL editor.

Template - SQL Stored Procedure

Temp

Template - Select Statement

Temp

☰

🔗

📄

💡

3. Enter the following SQL command in the script editor to query the entire **SYSTABLES** table.

```
SELECT * FROM SYSIBM.SYSTABLES;
```

4. Click the blue **Run all** button to execute the command.

5. You will see the result of the query displayed on a window on the right half of the webpage. Above the result preview, click the indicated download button to export the table as a *csv* file.

Run SQL

* Untitled - 1

SQL

1 SELECT * FROM SYSIBM.SYSTABLES; 1

Run all 2

☒ Remember my selection

Exercise 3: Try it Yourself!

In this practice exercise, you will get a chance to put what you learned in the first two exercises to use. Using the Db2 UI and the SQL script editor, attempt the following:

Export the *name*, *tbname*, and *tbcreator* columns of the *SYSIBM.SYSCOLUMNS* table.

- **Hint** (Click Here)
- **Solution** (Click Here)

Congratulations! You have completed this lab, and you are ready for the next topic.

Author(s)

- [Sandip Saha Joy](#)

Other Contributor(s)

- [David Pasternak](#)

© IBM Corporation 2023. All rights reserved.