

Connecting Power BI to MongoDB

Objective

MongoDB manages data in the form of BSON (Binary JSON) documents. Power BI deals with data in traditional table format. To have Power BI read directly from a MongoDB database a connector program is needed to translate between these different expectations regarding the structure of the data.

MongoDB provides a "BI Connector" program to do just that.

Some information on that program is here:

<https://docs.mongodb.com/bi-connector/master/connect/powerbi/>

PowerBI will treat the MongoDB datasource as an "ODBC datasource". ODBC is a standard that datasources may implement that allows tools like Power BI to connect to any ODBC compliant datasource in the same way.

There are 3 broad steps to connecting Power BI to MongoDB:

1. Install the MongoDB BI Connector
2. Configure your MongoDB database as an ODBC Datasource
3. In Power BI Get Data -> ODBC

Step 1: Install the MongoDB BI Connector

On the computer that MongoDB is installed (e.g. Your training VM) Download and install these 2 files:

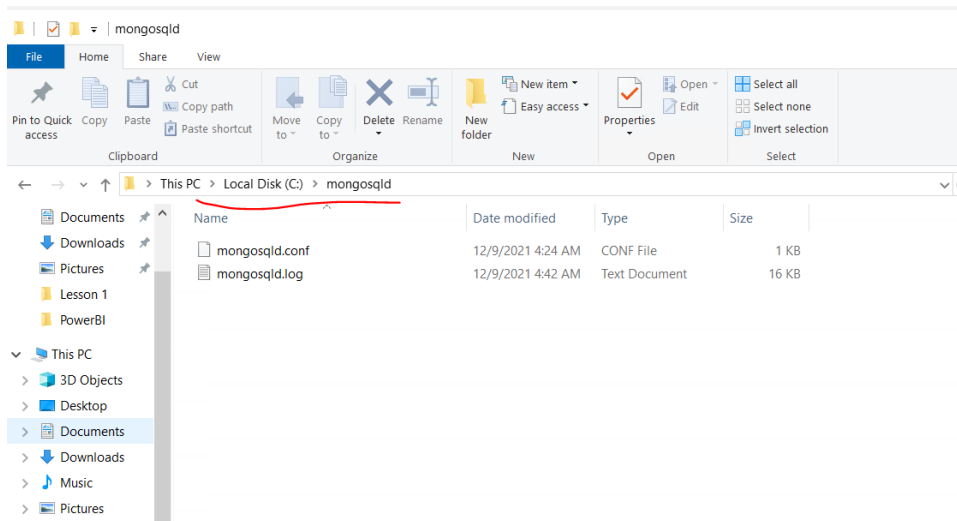
1. https://data-eng-21.s3.eu-west-1.amazonaws.com/pbi-mongo/mongodb-bi-win32-x86_64-v2.14.4.msi
2. <https://data-eng-21.s3.eu-west-1.amazonaws.com/pbi-mongo/mongodb-connector-odbc-1.4.2-win-64-bit.msi>

Now Download this zip file and unzip it:

<https://data-eng-21.s3.eu-west-1.amazonaws.com/pbi-mongo/mongosqld.zip>

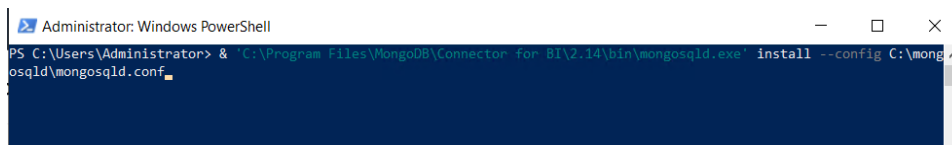
The unzipped file will create a folder called "mongosqld". Move that folder to C:/

You should now have a folder at C:/mongosqld



Now, open a power shell prompt (Windows Button -> Power Shell) and enter these two lines:

& 'C:\Program Files\MongoDB\Connector for BI\2.14\bin\mongosqld.exe' install --config C:\mongosqld\mongosqld.conf



net start mongosql



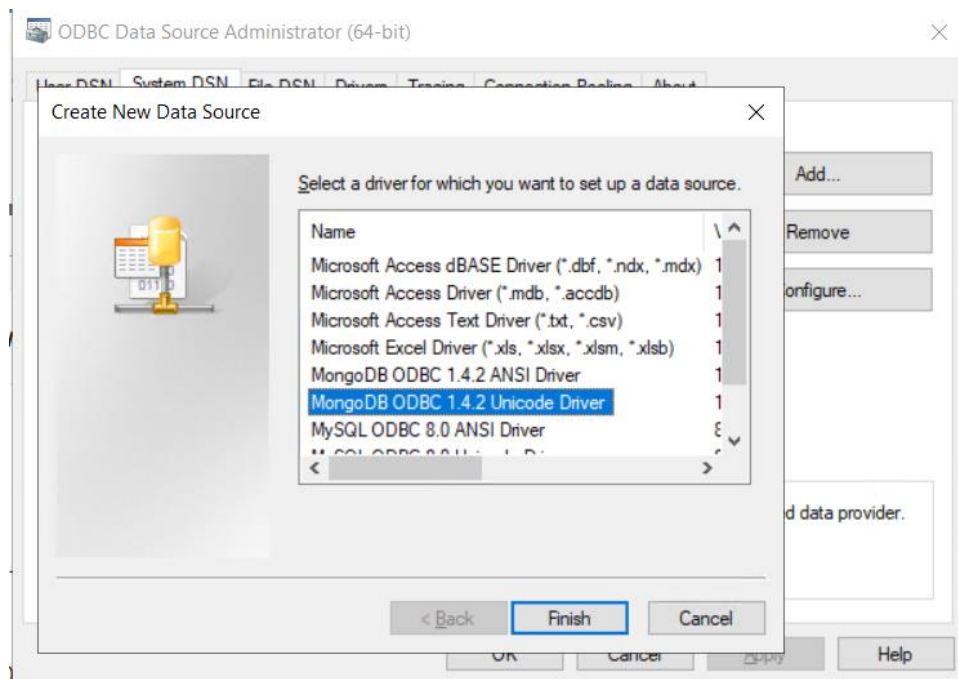
Step 2: Configure the MongoDB database as an ODBC datasource

Open the windows ODBC Data Sources (64-bit) tool (Windows Button -> ODBC Data...).

Select the "System DSN" Tab

Click "Add"

Select the MongoDB Unicode Driver

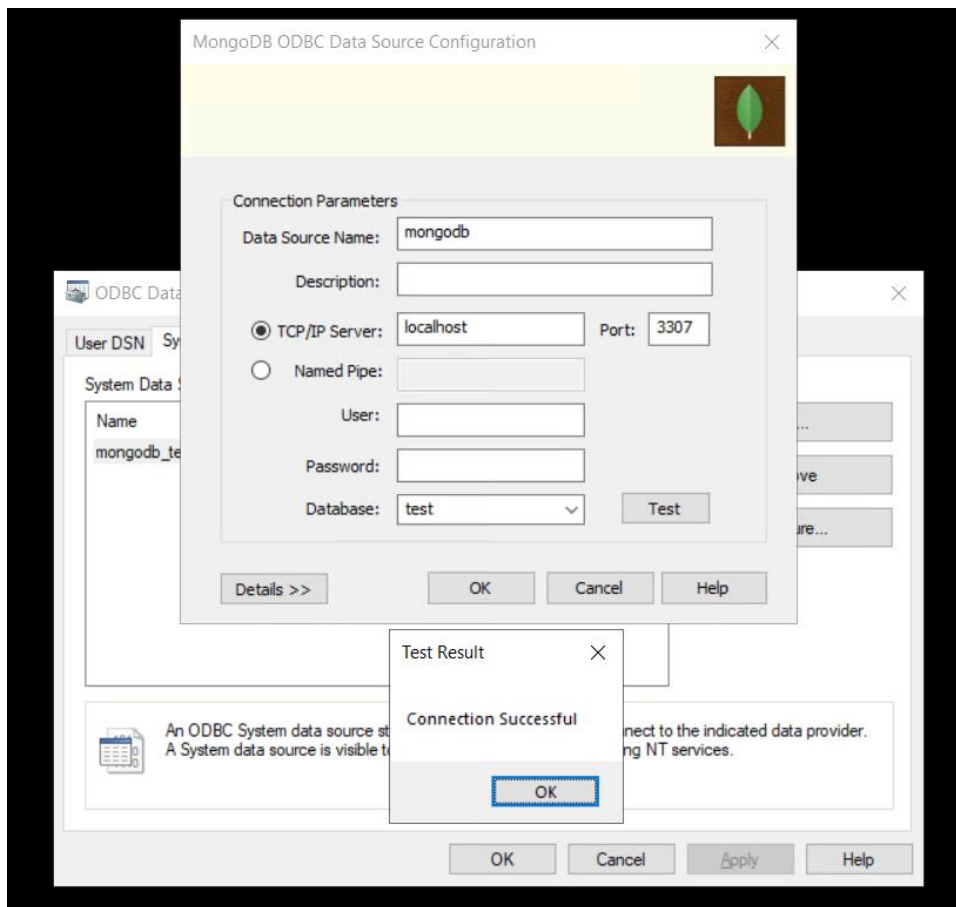


Enter a Data Source Name e.g. mongodb (anything you will identify it by)

Server: localhost

Port: 3307 (Note the 7!)

Enter the name of the database in MongoDB that you want to connect to – e.g. this will be the name of the specific database you want to read from – as shown in Mongo Compass.



Click Test to verify it works.

If Test is successful click Ok to close each window and exit the ODBC Connection Tool

Step 3: In Power BI Get Data -> ODBC

Open Power BI desktop and create a new empty report file.

Click Get Data -> More and search for ODBC.

Click Connect on ODBC.

Select your Data Source Name (DSN), (you set this in Step 2) e.g. mongodb

Click Ok.

Enter any user name and password – they will not be used, but Power BI requires them e.g. mongo/mongo

Click Connect

Select one or more connections from the database you set in Step 2.

Click Load to bring in the data

Navigator

Display Options ▾

ODBC (dsn=mongodb) [5]

INFORMATION_SCHEMA

mongo101

mysql

test [3]

emps

emps_langs

☒ people

test_database

people

_id	age	favTeam	gender	name
61b04de44e3be1ec4f1ecf25	52	null	F	Jayne
61b04e614e3be1ec4f1ecf26	20	null	M	Thomas
61b04e614e3be1ec4f1ecf27	20	Swans	F	Emily

Select Related Tables

Load

Transform Data

Cancel