How to Connect MongoDB to Power BI: A

Comprehensive Guide 101



Are you confused about how to connect MongoDB to Power BI? Have you invested multiple hours on the internet to find the correct way to analyze and visualize your MongoDB data in a BI tool? If yes, then this blog will answer your questions.

Data visualization is the process of representing your data graphically. The images produced using MongoDB data in BI software helps to communicate to the viewers. It gives you better insights into your MongoDB data. Power BI, Tableau, Google Data Studio are a few examples of the most popular BI tools.

In this blog, you will unwrap the process of connecting MongoDB to Power BI in a few simple steps. Let's see what you will cover here:

- 1. Introduction to MongoDB
- 2. Introduction to Power BI
- 3. Prerequisites
- 4. Load Data from MongoDB to Power BI
- 5. Conclusion

Introduction to MongoDB

MongoDB is an open-source document-oriented NoSQL database owned by MongoDB Inc. As it is a NoSQL database, so it uses collections and documents to store data instead of using tables and rows. The basic unit of MongoDB is a key-value pair. Each document contains a primary key. MongoDB stores data in JSON documents with dynamic schemas. Companies like Uber, Stack, Accenture, etc uses MongoDB for storing data.



Key Features of MongoDB

- 1. **Indexing:** MongoDB can index any document.
- 2. Ad Hoc Queries: In MongoDB, you can search based on fields, range queries, and regular expressions.
- 3. **Duplicated Data:** MongoDB runs on multiple servers. Data is duplicated to keep your system up in case of failure.
- 4. **Schemaless Database:** MongoDB supports a schemaless database, enhancing its flexibility.

Introduction to Power BI



Image Source: cdn.icon-icons.com

<u>Microsoft Power BI</u> is a cloud-based business analyst platform. You can create interactive reports with the help of Power BI. Power BI supports in-built connectors for databases such as Oracle, SQL Server, PostgreSQL, etc. Power BI is available as Power BI Mobile and Power BI Desktop.

Key Features of Power BI

- 1. **Easy Set-Up:** It is free software that can be set-up in minutes.
- 2. **Customized Visualization:** Power BI supports custom visualization library through which you can create your desired visuals.
- 3. **Interactive Interface:** Power BI offers a simple and intuitive interface to its users. No codes are required to create a report on this platform.
- 4. **Real-Time:** Data is available for visualization in real-time. You can capture opportunities and solve problems in real-time.

Prerequisites

- Download and install MongoDB ODBC driver from here.
- You need to have basic knowledge of MongoDB.
- You should understand the concept of NoSQL and business intelligence tools.

Simplify Data Analysis with Hevo's No-code Data Pipeline

Hevo Data, a No-code Data Pipeline helps to load data from any data source such as Whatsapp, Databases, SaaS applications, Cloud Storage, SDKs, and Streaming Services and simplifies the ETL process. It supports 100+ data sources (including 30+ free data sources) like Asana and is a 3-step process by just selecting the data source, providing valid credentials, and choosing the destination. Hevo not only loads the data onto the desired Data Warehouse/destination but also enriches the data and transforms it into an analysis-ready form without having to write a single line of code.

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Its completely automated pipeline offers data to be delivered in real-time without any loss from source to destination. Its fault-tolerant and scalable architecture ensure that the data is handled in a secure, consistent manner with zero data loss and supports different forms of data. The solutions provided are consistent and work with different BI tools as well.

Check out why Hevo is the Best:

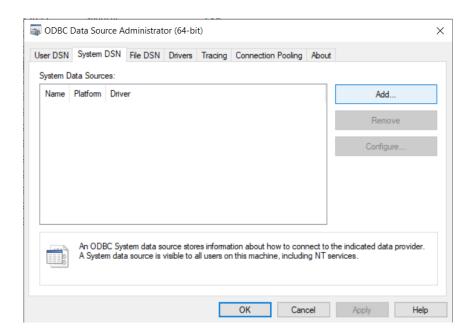
- **Secure**: Hevo has a fault-tolerant architecture that ensures that the data is handled in a secure, consistent manner with zero data loss.
- Schema Management: Hevo takes away the tedious task of schema management & automatically detects the schema of incoming data and maps it to the destination schema.
- **Minimal Learning**: Hevo, with its simple and interactive UI, is extremely simple for new customers to work on and perform operations.
- Hevo Is Built To Scale: As the number of sources and the volume of your data grows, Hevo scales horizontally, handling millions of records per minute with very little latency.
- Incremental Data Load: Hevo allows the transfer of data that has been modified in real-time. This ensures efficient utilization of bandwidth on both ends.
- **Live Support**: The Hevo team is available round the clock to extend exceptional support to its customers through chat, email, and support calls.
- **Live Monitoring**: Hevo allows you to monitor the data flow and check where your data is at a particular point in time.

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Load Data from MongoDB to Power BI

Let's see how you will connect MongoDB to Power BI in 8 easy steps:

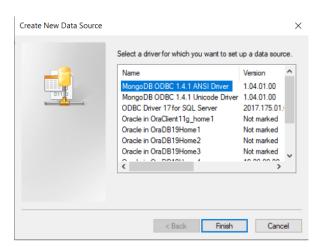
1. Go to "Administrative Tools" and select "ODBC Data Sources" corresponding to your system.



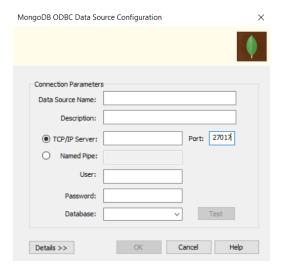
2. Select "System DSN" and click "Add..".

Image Source: docs.mongodb.com

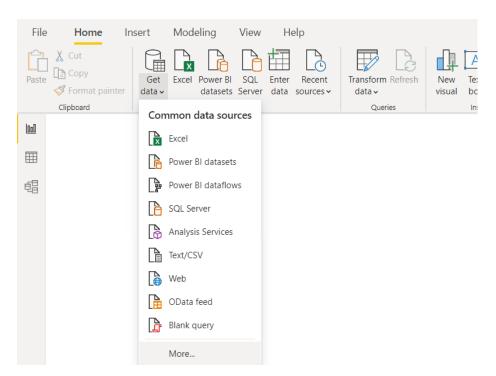
3. In the "Create New Data Source", select the appropriate driver. ANSI driver offers better performance but limited character sets whereas Unicode driver offers entire character set but limited performance.



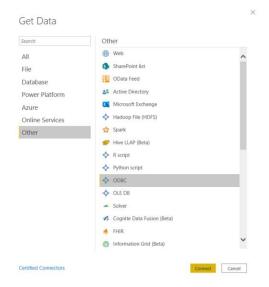
4. Now, provide connection parameters. Specify the name of the data source, TCP/IP server, port, username, password, and database.



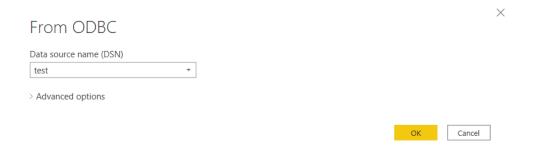
5. Go to Power BI Desktop, select "Get Data" in the home ribbon. Click on "More..".



6. In the panel, select "Other". Click on the "ODBC" and then "Connect".

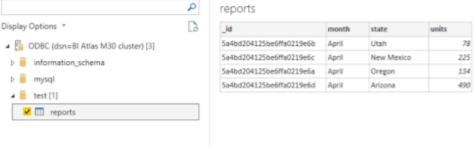


7. In the ODBC panel, select the name of your DSN and click "OK".



8. In the navigator panel, select your database and click "Load".





That's it, you've now successfully connected MongoDB to Power BI.