

InfluxDB: Introduction

Introduction to InfluxDB, all you need to know about it

Welcome on Stackhero's documentation!

Stackhero provides InfluxDB instances that are ready for production in just 2 minutes!

Including TLS encryption (aka HTTPS), customizable domain name, backups and updates in just a click.

Try our [managed InfluxDB cloud](#) in just 2 minutes

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What is InfluxDB

InfluxDB is an open source Time Serie Database (TSDB).

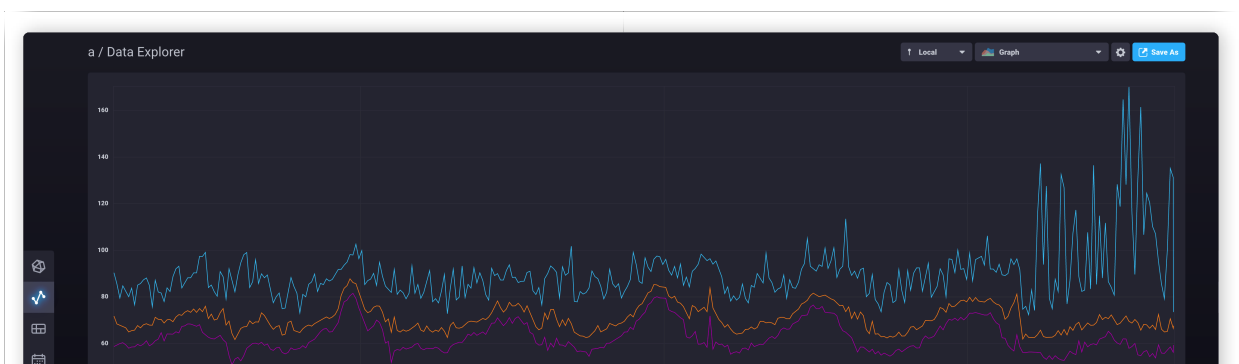
It is specialized in operations like monitoring, application metrics, Internet of Things (IoT) sensors data and real-time analytics.

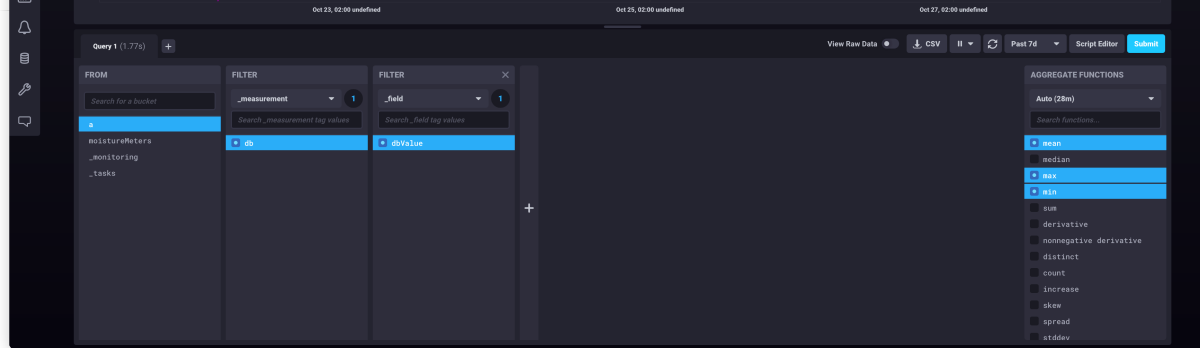
It is mainly written in Go language and is designed for high-performance and high-efficiency storage.

It can store thousands of data points every second making it perfect for industrial grade applications.

Once stored, data can be queried and analyzed using the "Flux" language.

This language is an integral part of InfluxDB and permits advanced data manipulations to analyze your data in an incredible depth.





InfluxDB data exploration using its WEB UI

InfluxData, the company behind InfluxDB

InfluxDB has been created in 2012 by the company InfluxData (named Errplane at this time).

It has been backed by Y Combinator startup accelerator that launched companies like Airbnb, Dropbox, PagerDuty, Coinbase, Stripe or Twitch.

Overt the years InfluxData has been trusted by many companies and investors and has raised a total of \$119 million since its creation.

Its HQ is in San Francisco (California, United States) but, as a lot of company nowadays, lots of its employees are working remotely all over the world.

InfluxDB is a Time Serie Database (TSDB)

A Time Serie Database (TSDB) is a kind of database that stores values that evolve during time.

Typically, a temperature will elvolved each minute. A Time Serie Database will store a key "temperature", and then associate an array of timestamp and value that will be filled each minute.

This kind of database is designed to store metrics and InfluxDB is probably the most world famous database of this kind.

Differences between InfluxDB and relational/SQL databases

A Time Serie Database is totally different from a relational database (like MySQL or PostgreSQL) as it doesn't create relationships between data.

Relational database are perfect to store data like users and messages. In such databases, you will link messages to users, so you can query it by asking "give me all the messages from this user that have been sent today".

Time Serie Databases will not be able to do this kind of job.

Differences between InfluxDB and NoSQL databases

A NoSQL database (like MongoDB or OpenSearch) stores data like documents. It is an association of multiple data, like a user name, its birthday and its email.

NoSQL databases are competitors of SQL relational databases and, as such, are not designed to store metrics data like InfluxDB does.

When to use InfluxDB

InfluxDB is perfect if you want to store, query and analyze metrics data, like IoT sensors, monitoring records or applications metrics.

Typically, IoT devices that are connected using WiFi, 5G, Sigfox or LoRa networks send their sensors values (temperatures, 3 axis accelerometer, GPS coordinates, etc...) at regular intervals. These data are enhanced with health data like battery voltage and network reception.

There IoT devices will send all these data at regular intervals to InfluxDB that will store them in an efficient way.

With its high performances API, InfluxDB can ingest thousands of data per seconds with no problem. And with its advanced "Flux" language, you will be able to query and analyze these data in few lines.

When to not use InfluxDB

If you want to store documents or data that are not metrics, like users informations, messages or PDF documents, then InfluxDB is not the good choice.

In that case we recommend to have a look at PostgreSQL, MySQL or OpenSearch databases.

Also, if your goal is to store metrics for servers or network equipments (like switches or routers), you should probably have a look at solutions like Prometheus that are dedicated for this purpose.

What makes InfluxDB so great

InfluxDB is an awesome product for these reasons:







- It perfectly handles telemetry data like monitoring, applications metrics or IoT sensors
- Data are automatically compressed to manage disk occupation efficiently
- Downsampling tasks run automatically to reduce disk usage and increase query performances
- Retention policies can be applied to automatically delete old data after a defined amount of time
- Flux language is super powerful and permits to analyze in depth stored data
- InfluxDB WEB UI gives the ability to create beautiful dasbboards in minutes



What is InfluxDB cloud

InfluxDB cloud is the fact that InfluxDB runs at a cloud provider, as opposed to on-premises solutions.

There is mutliple InfluxDB cloud providers. Stackhero is one of them.

With Stackhero, you will get a dedicated InfluxDB starting in just 2 minutes, including out-of-the-box:

-  A private InfluxDB server
-  A dedicated IPv4
-  Automatic backups every 24 hours
-  Unlimited writes, queries, dashboards, tasks and buckets
-  Unlimited data retention time
-  Unlimited network and disk transfers

-  TLS certificates (aka SSL/HTTPS) handled automatically
-  Possibility of starting up in the USA or in Europe

How to start InfluxDB

So you think InfluxDB is the good choice for your project and you want to try it easily.

Good news, we propose managed InfluxDB instances, pre configured, and ready to use with just a click.

You can start a demo instance for free in 2 minutes and test InfluxDB with no headache.




























Once your tests are over, you will be able to use the instance in production and upgrade it with just a click!

[Click here to know more about InfluxDB cloud and start it for free.](#)

Other articles about InfluxDB that might interest you

- [Getting started](#)
How to start using InfluxDB

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