NoSQL database

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Key terms before deep dive into mongoDB.

Bson	MongoDB data format.
Namespace	Concatenation of database and collection.
Database	A physical container for collection.
Collection	A group of MongoDB document.
Document	A set of key value pairs with dynamic schema.

Shop.Users
Shop.Orders

What is mongoDB?

- MongoDB is an open source document database.

- It is a tools for database managements that used **no-sql query**.

- MongoDB model the data in Bson format.

- Data type support:
  - *Double*
  - *String*
  - *Object*
  - *Array*
  - *Binary data*
  - *Undefined*
  - *Boolean*
  - *Null*
  - *Timestamp*

```
{
"_id": 1,
"student_name": "Jasmin Scott",
  "school": {
    "school_id": 226,
    "name": "Tech Secondary",
    "address": "100 Broadway St",
    "city": "New York",
    "state": "NY",
    "zipcode": "10001"
  },
"marks": [98, 93, 95, 88, 100],
}
```

```
mongo
> db.students.find({"student_name":
  "Jasmin Scott"})
```
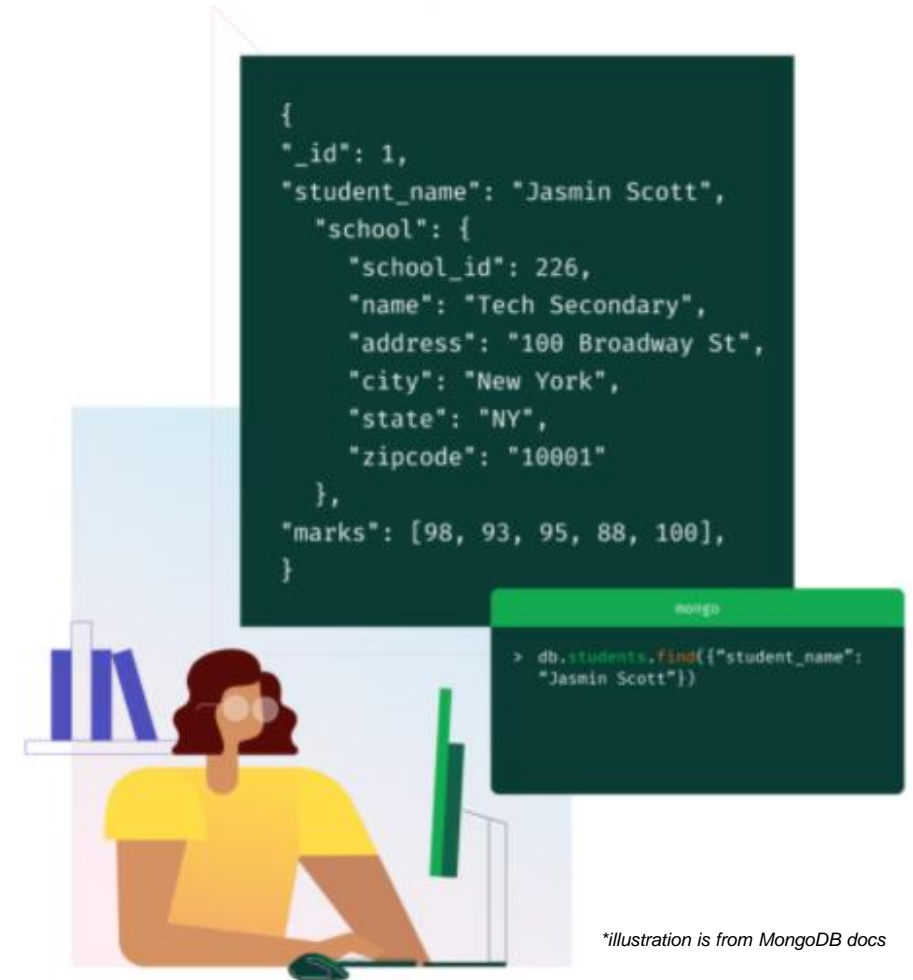
illustration is from MongoDB docs

Who using mongoDB?

For authentication.

To scale the millions of players.

For petabyte scale data management in the cloud.

To develop drugs to fight diseases, including cancer.

Google Cloud Platform's Compute Engine.

Why using mongoDB?

No schema to follow.

Document oriented storage.

Replication and high availability.

Document database are extremely flexible.

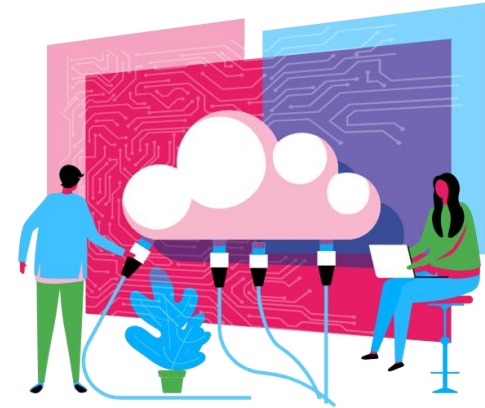The database is human readable.

When to use mongoDB?

Rapid Growth

High Availability

No Database Administration

Cloud Computing

The cloud product.

MongoDB Realm

Reference guide for MongoDB Realm. Learn how to easily integrate your application with MongoDB and other services.

MongoDB Atlas

Reference guide for MongoDB Atlas. Learn how to quickly set up and manage your cloud deployment using MongoDB Atlas.

MongoDB Charts

Reference guide for MongoDB Charts. Learn how to create visualizations for your MongoDB data with an easy-to-use interface.

MongoDB Cloud Manager

Reference guide for MongoDB Cloud Manager. Learn how to manage your MongoDB deployments using MongoDB Cloud Manager.

MongoDB Atlas Search

Reference guide for MongoDB Atlas Search. Learn how to build and query an Atlas Search index for flexible, fine-grained search functionality.
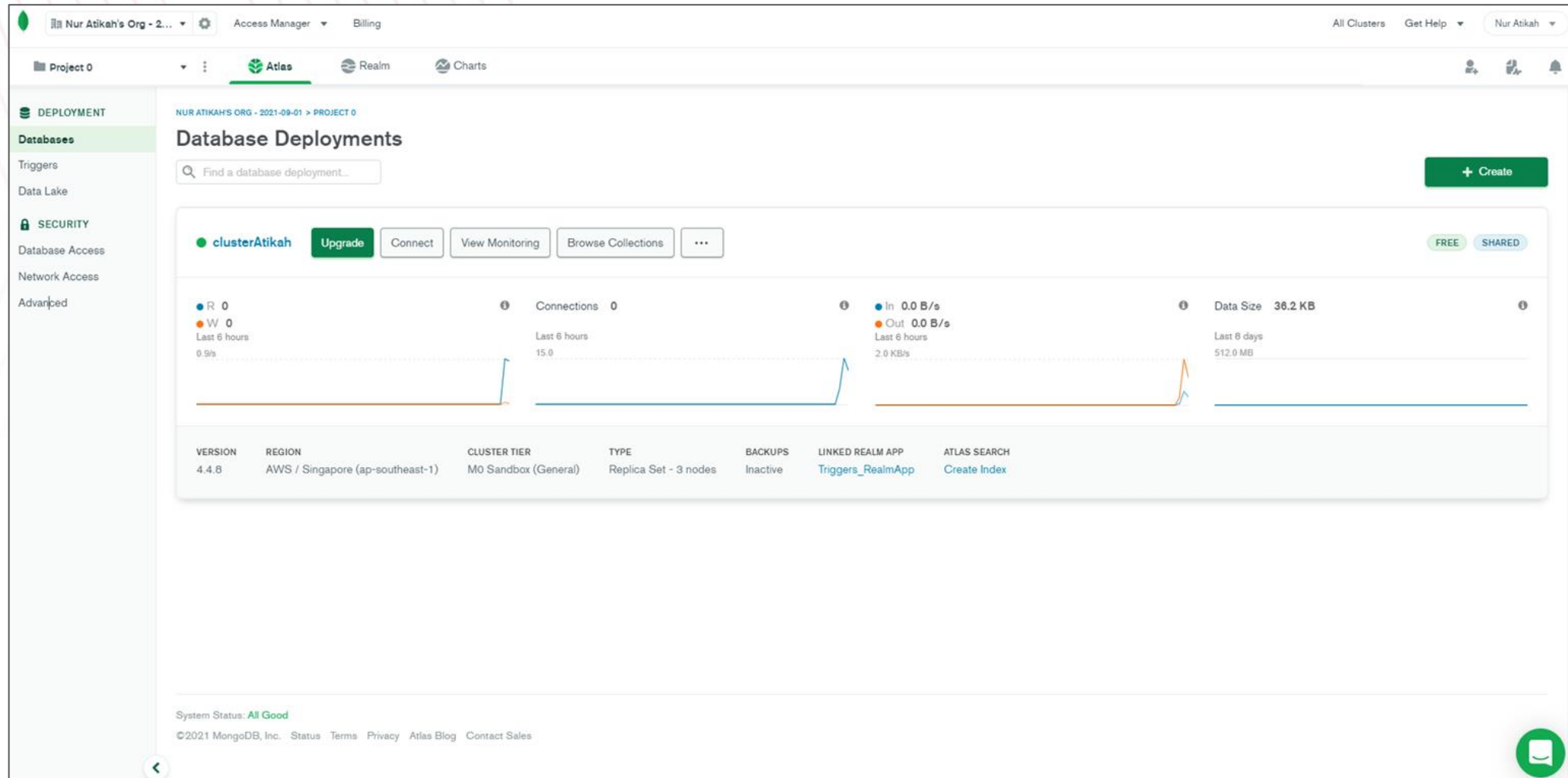
MongoDB Atlas Data Lake

Reference guide for MongoDB Atlas Data Lake. Learn how to quickly set up and manage your Atlas Data Lake deployment through MongoDB Atlas.

MongoDB Ops Manager

Reference guide for MongoDB Ops Manager. Learn how to use Ops Manager to set up and manage your MongoDB deployments.
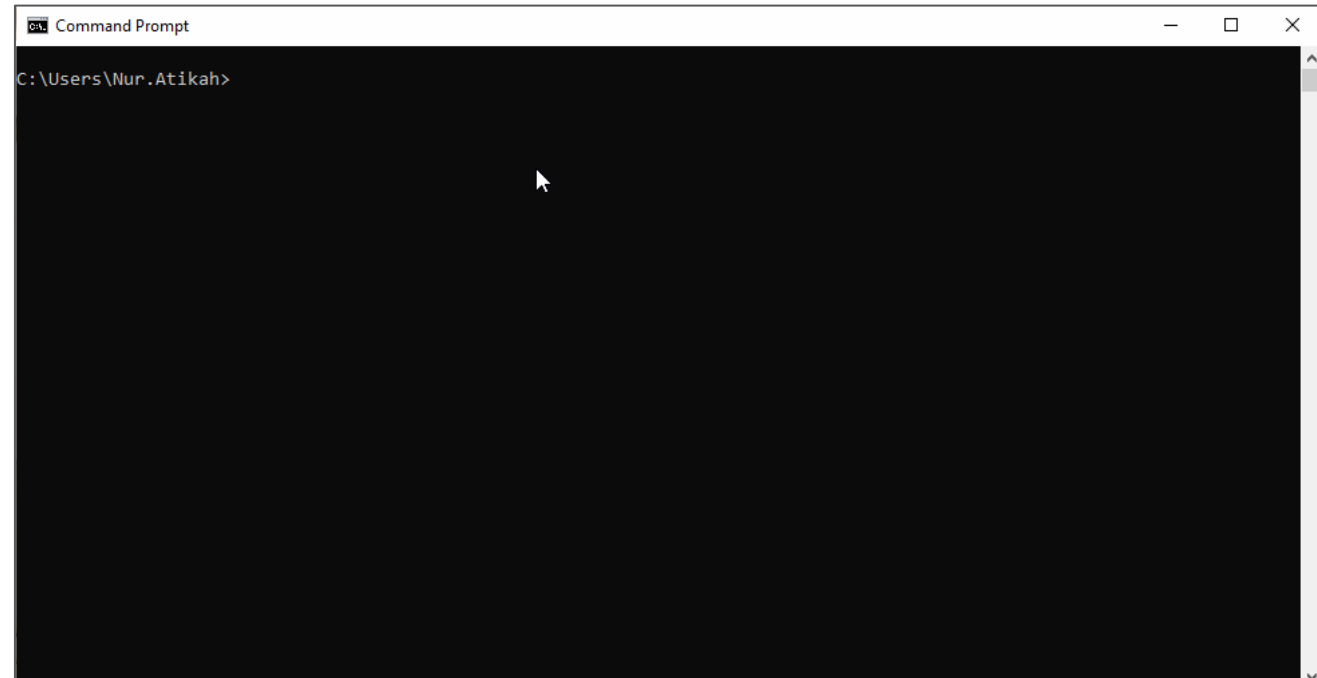
The mongoDB Atlas interface.

How to install mongoDB?

Install here: https://www.mongodb.com/try/download/community

- Put this C:\Program Files\MongoDB\Server\5.0\bin to path in system environment variable
- In terminal run ***mongod***
- Then, ***mongo***

MongoDB CRUD demo

name	age	personality	education	address
Intan Syazana	21	Friendly	UPSR, PMR	JOHOR, 81500
Ali Imran	22	Precise, Clumsy	UPSR	PENANG
Ng Jing Ting	24		UPSR, PMR, SPM, COLLEAGUE	40170
Ramendra	21	Charming	UPSR, PMR, SPM, COLLEAGUE, DEGREE	SABAH, 88000