MongoDB
Datatype

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BSON and JSON

What is BSON?

BSON is binary JSON (JavaScript Object Notation)

- It supports the embedding of documents and arrays.

- It is easy for machine to parse and generate.

- Zero or more key-value pairs are stored as a single entity.

- Each entry consist of a field-name , data type and a value.

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What is JSON?

JavaScript is a JavaScript object notation.

- It is a light-weight data format.

- Data is in name / value pairs.

- Data is separated by comma.

- Curly braces hold objects.

  Example : {name : "john" ,id :01}

- An array is stored in brackets [] .

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Data Types

BSON Types

BSON is a binary serialization format used to store documents and make remote procedure call in MongoDB.

BSON supports the data types as values in documents .

Each data type has a corresponding number and string alias that can be used with $type operator to query documents by BSON type.

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Data Types

Data Types	Description
string	It is used to store data. A string must be UTF 8 valid in mongodb.
integer	Integer is used to store the numeric value . It can be of 32 bit or 64 bit depending on the server.
boolean	This type is used to store boolean (true/false) value.
double	This type is used to store floating point values .
null	This type is used to store null value.
array	This type is used to store arrays or list of multiple values into one key.

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Data Types

Data Types	Description
object	This type is used for embedded documents .
Binary data	This data type is used to store binary data.
Min/Max keys	This type is used to compare a value against lowest and highest BSON elements .
symbol	This type is used for specific symbol type.
Date	This type is used to store current date or time.
Object ID	This type is used to store the document's ID.

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MongoDB Extended JSON

MongoDB represents JSON (JavaScript object notation)

MongoDB represents JSON documents in binary-encoded format called BSON .

BSON extends the JSON model to provide additional data types, ordered fields, and to be efficient for encoding and decoding within different languages.

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MongoDB Extended JSON

MongoDB adds the following extension to JSON format :

- Strict mode : JSON parser can parse the strict mode representation as key/value pairs.

  Example :

  { "$date" : "<date>" }

- Mongo shell mode : The MongoDB internal JSON parser and the mongo shell can parse this mode.

  Example :

  new Date (<date>)

Mongo Shell

The Mongo Shell is an interactive JavaScript interface to MongoDB.

We can use Mongo Shell to query and update data as well as perform administrative operations.

The Mongo Shell is the component of the MongoDB distributions.

To exit the shell type quit() or use <ctrl-c>.

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References

- https://www.wikimedia.org/
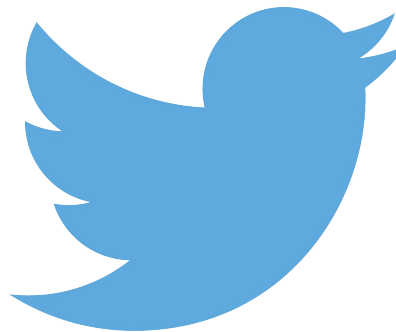- https://docs.mongodb.com/manual/

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