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MONGODB

Introduction

- Document-oriented database
- A record in MongoDB is a document, which is a data structure composed of field and value pairs.
- MongoDB documents are similar to JSON objects
- Field Values can be other documents, arrays, arrays of other documents.
 - Reduces need for “Joins”
- Community support - popular choice

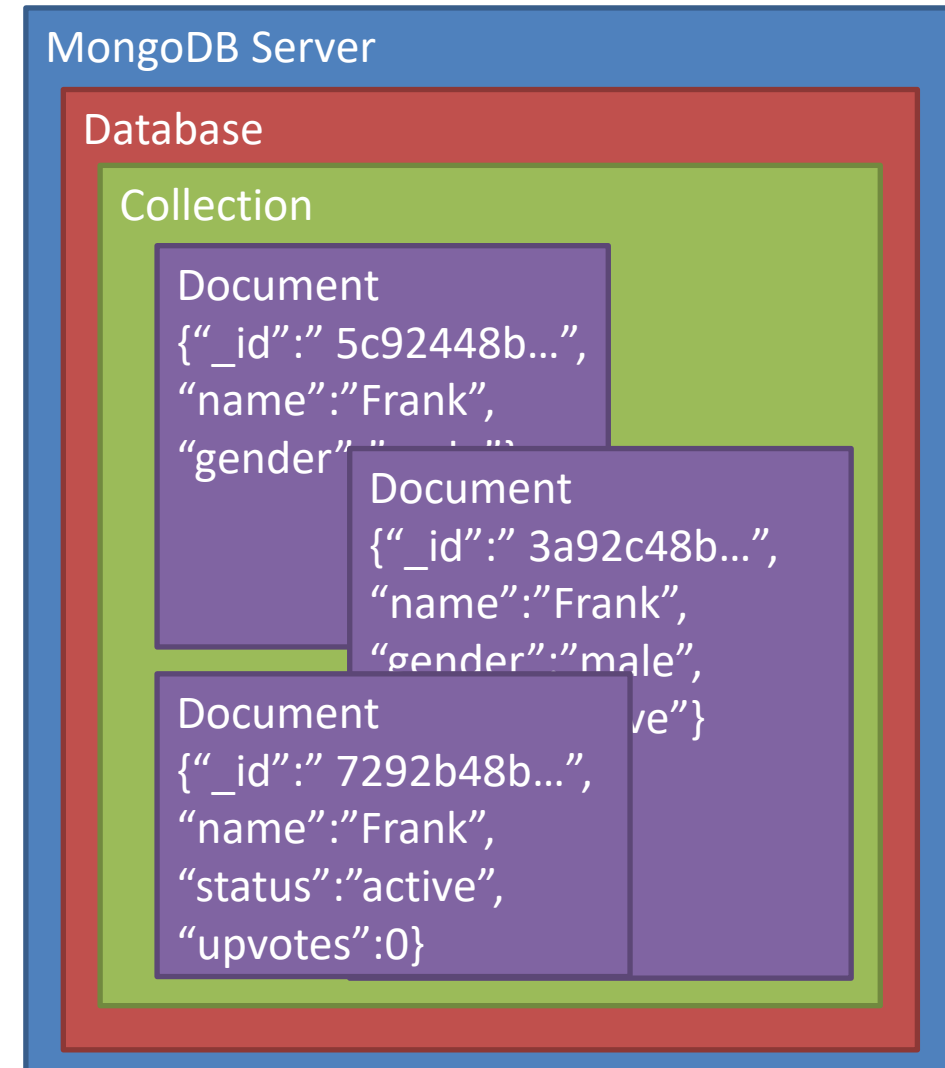
```
{  
  name: "sue",  
  age: 26,  
  status: "A",  
  groups: [ "news", "sports" ]  
}
```



← field: value
← field: value
← field: value
← field: value

Mongo Terminology

- Each **database** contains a set of "Collections"
- Collections contain a set of JSON documents
 - there is no schema (in the DB...)
- The documents can all be different
 - means you have rapid development
 - adding a property is easy - just starting using in your code
- Makes deployment easier and faster
 - roll-back and roll-forward are safe - unused properties are just ignored
- Collections can be indexed and queries
- Operations on individual documents are atomic




Mongo Documents

- MongoDB stores data records as BSON documents.
 - BSON is a binary representation of JSON documents.
- Each document stored in a collection requires a unique `_id` field and is reserved for use as a primary key.
- If an inserted document omits the `_id` field, the MongoDB driver automatically generates an ObjectId for the `_id` field.
 - ObjectId values consist of 12 bytes.

```
_id: ObjectId("5c92448b7fbccf28a0c501aa")  
name: "Contact 4"  
address: "49 Upper Street"  
phone_number: "934-4290"
```

Getting Started (locally)

- Install Mongo community edition for your OS:

[Install MongoDB](#) > Install MongoDB Community Edition 

Install MongoDB Community Edition

These documents provide instructions to install MongoDB Community Edition.

[Install on Linux](#)
Install MongoDB Community Edition and required dependencies on Linux.

[Install on macOS](#)
Install MongoDB Community Edition on macOS systems from MongoDB archives.

[Install on Windows](#)
Install MongoDB Community Edition on Windows systems and optionally start MongoDB as a Windows service.

- Specify a directory for your db files and start Mongodb server.

```
mkdir db  
mongod -dbpath db
```

Getting Started (locally)

- Install Mongo Compass, Graphical User Interface for managing MongoDB.
 - For windows, comes as part of mongodb install
 - Other platforms can get it [here](#):

