



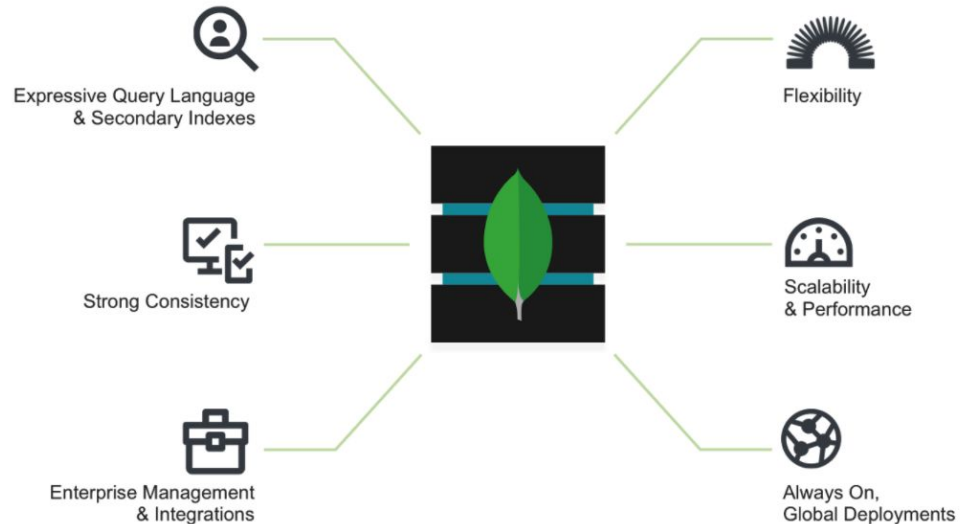
BOOTCAMP

# MongoDB & Mongoose



# What is a non relational database?

NoSQL databases are non-tabular databases and store data differently than relational tables. NoSQL databases come in a variety of types based on their data model.



# Relational or non relational?

**Consider a NoSQL datastore when:**

You have high volume workloads that require predictable latency at large scale (e.g. latency measured in milliseconds while performing millions of transactions per second)

Your data is dynamic and frequently changes

Relationships can be de-normalized data models

Data retrieval is simple and expressed without table joins

Data is typically replicated across geographies and requires finer control over consistency, availability, and performance

Your application will be deployed to commodity hardware, such as with public clouds

**Consider a relational database when:**

Your workload volume generally fits within thousands of transactions per second

Your data is highly structured and requires referential integrity

Relationships are expressed through table joins on normalized data models

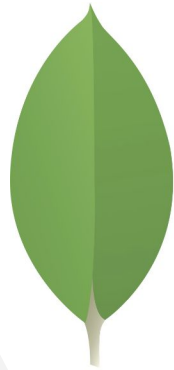
You work with complex queries and reports

Data is typically centralized, or can be replicated regions asynchronously

Your application will be deployed to large, high-end hardware

# What is MongoDB?

MongoDB is an open source, non-relational database management system (DBMS) that uses flexible documents instead of tables and rows to process and store various forms of data.



mongoDB

## How a flexible document looks ...

```
{
  "firstName": "Shane",
  "lastName": "Johnson",
  "skills": ["Big Data", "Java", "NoSQL"],
  "experience": [
    {
      "role": "Technical Marketing",
      "company": "Red Hat"
    },
    {
      "role": "Product Marketing",
      "company": "Couchbase"
    }
  ]
}
```

# What is MongoDB Atlas?

MongoDB Atlas is a multi-cloud database service by the same people that build MongoDB.



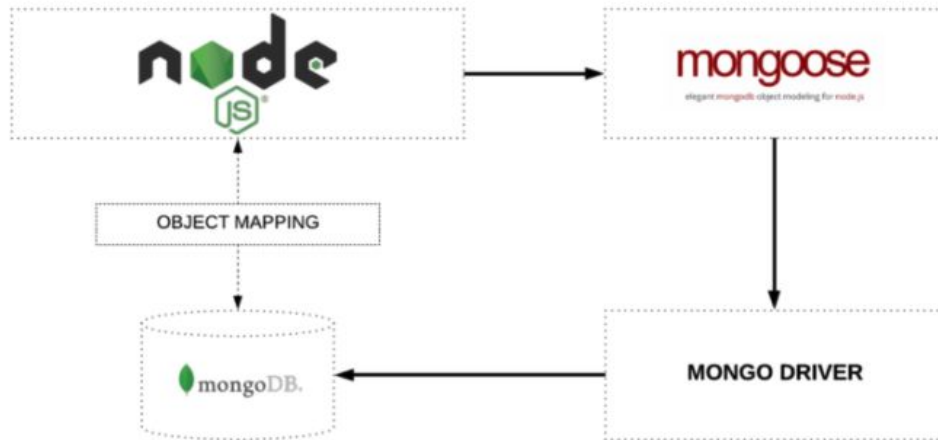
# What is an ODM Library?

ODM is Object Document Mapping. It is like an ORM for non-relational databases or distributed databases such as MongoDB, i.e., mapping an object model and NoSQL database (document databases, graph database, etc.).

The word "mongoose" is written in a lowercase, rounded, sans-serif font. The letters are a dark red or maroon color. The 'm' and 'n' have a distinctive shape with a small loop at the bottom. The 'g' is also rounded. The overall style is clean and modern.

# What is Mongoose?

Mongoose is an Object Data Modeling (ODM) library for MongoDB and Node.js. It manages relationships between data, provides schema validation, and is used to translate between objects in code and the representation of those objects in MongoDB.

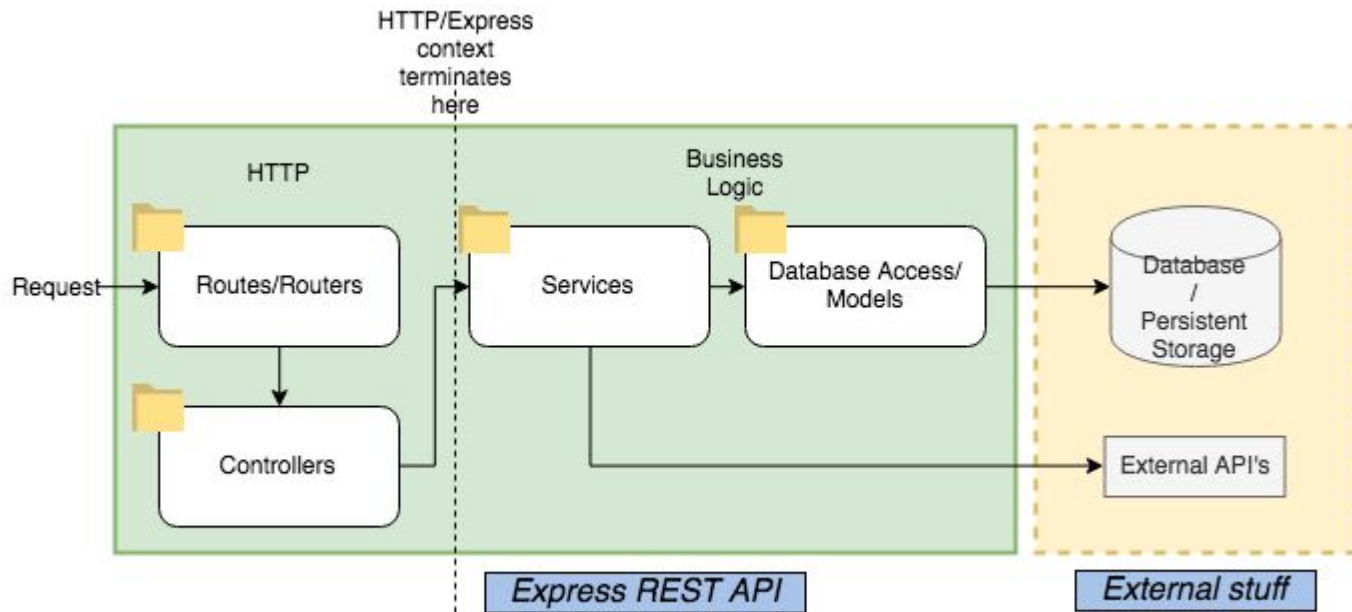


Object Mapping between Node and MongoDB managed via Mongoose



Let's start developing!

# Project structure





# THANKS!

Any questions?