@MongoDB - Database No Only SQL

jesse cogollo

Developer by passion

email: cogollo87@gmail.com

October 10, 2014

Contenido

Presentación

Example (yo)

```
{
   "name": "Jesse Javier Cogollo Alvarez",
   "age": 27,
   "title": "Developer by passion",
   "location": "Medellin, Colombia",
   "phone": "3207906256",
   "Marital status": "Married",
   "member": ["@avanet","@MongoDBMedelln"],
   "social": {
      "facebook": "jessecogollo",
      "skype": "jessecogollo",
      "twitter": ["@jessecogollo","@newdevs"]
   }
}
```

Que es @MongoDB

'MongoDB (from "humongous") is an open-source document database, and the leading NoSQL database. Written in C++.'
https://www.mongodb.org/

'MongoDB was not designed in a lab. We built MongoDB from our own experiences building large-scale,high availability, robust systems...' Eliot Horowitz, CTO and Co-Founder

NOSQL

En informática, NoSQL (a veces llamado 'no sólo SQL') es una amplia clase de sistemas de gestión de bases de datos que difieren del modelo clásico del sistema de gestión de bases de datos relacionales (RDBMS) en aspectos importantes, el más destacado que no usan SQL como el principal lenguaje de consultas.
http://es.wikipedia.org/wiki/NoSQL/

NOSQL

Las caracteristicas comunes de las bases de datos NoSQL son:

- No utilizan el modelo relacional.
- Corren bien en clusters.
- Open-source.
- sin esquemas.
- El resultado mas importante del aumento de las bases de datos NoSQL es la Persistencia Poliglota.

http://martinfowler.com/articles/nosqlKeyPoints.html

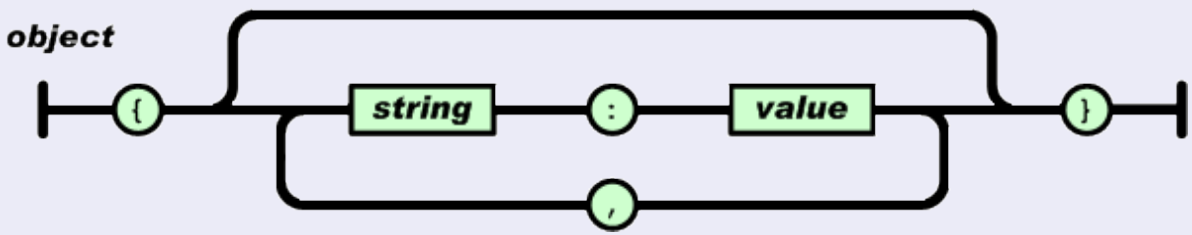
Persistencia poliglota

JSON

Definición

(JavaScript Object Notation) Formato de intercambio de datos.

Esquema



Ejemplo

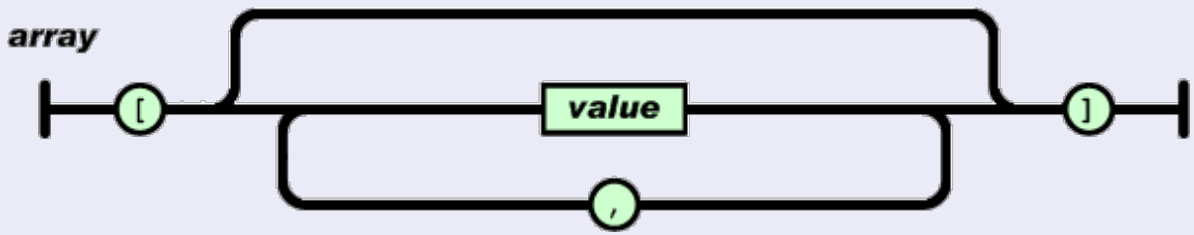
{ "llave": "valor" } ó {}

JSON

Definición array

Es el tipo de dato que puede contener un JSON.

Esquema



Ejemplo

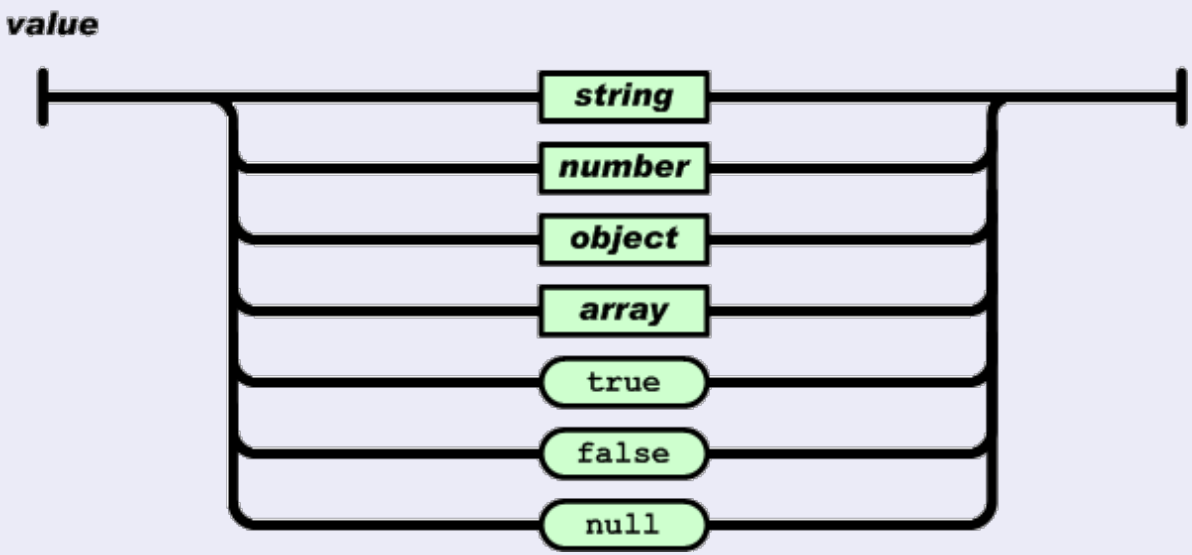
["valor1", "sena",2014,true]

JSON

Definición valor

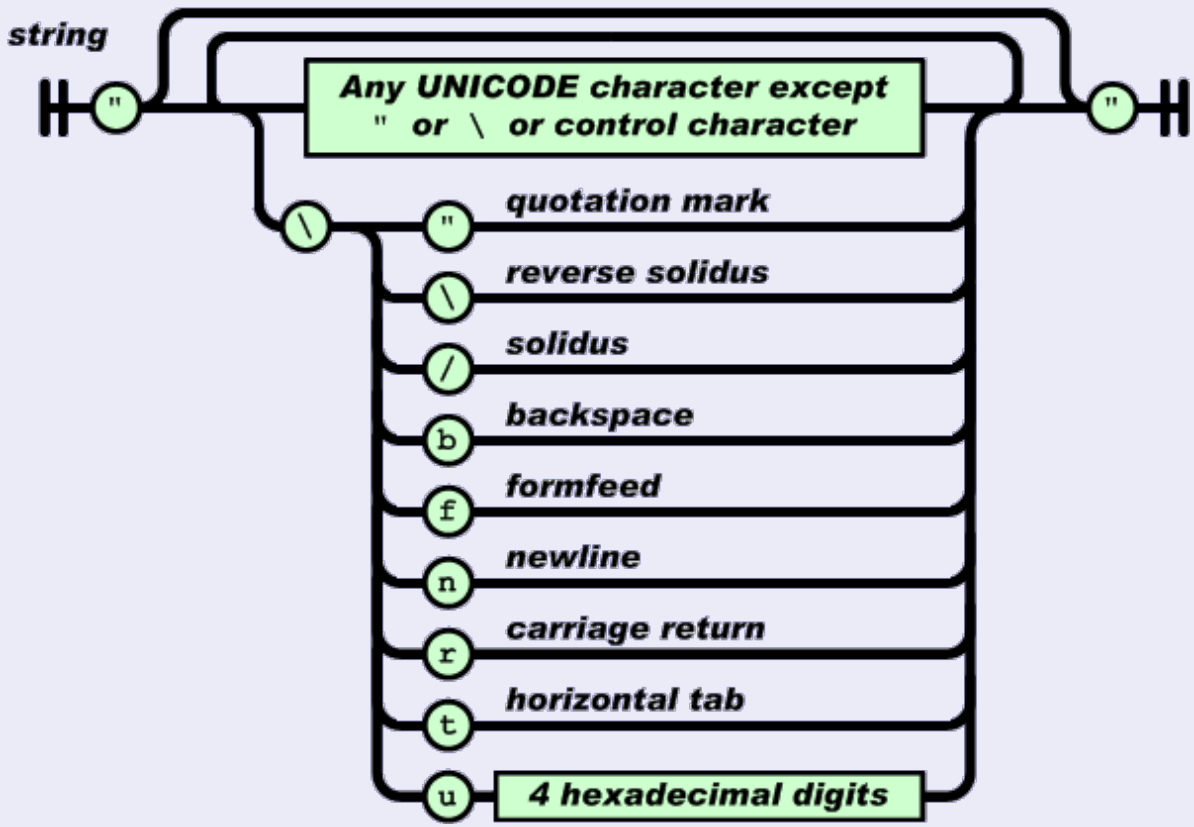
Es el tipo de dato que puede contener un JSON.

value



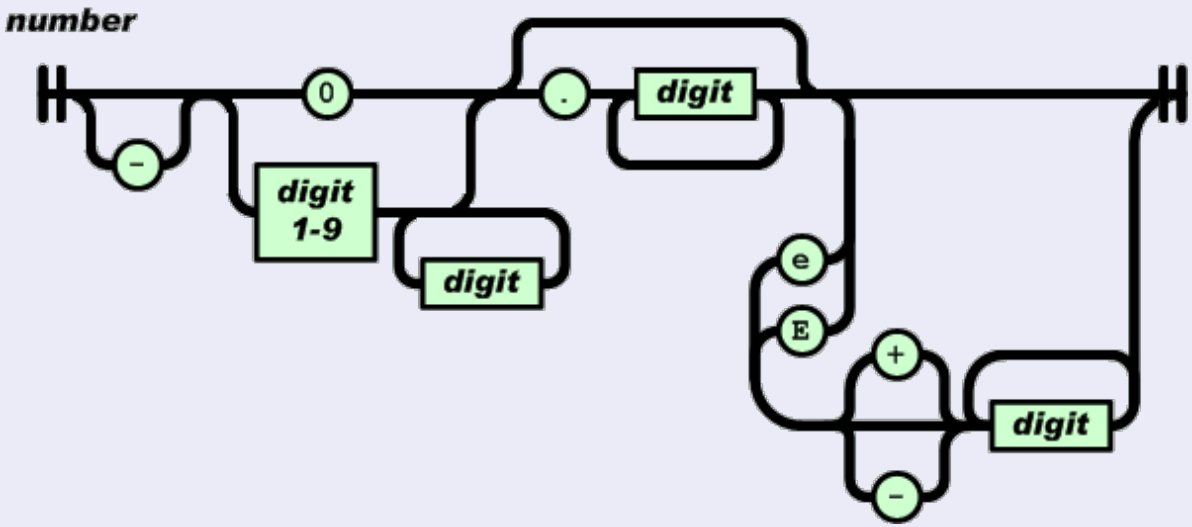
JSON

Esquema string



JSON

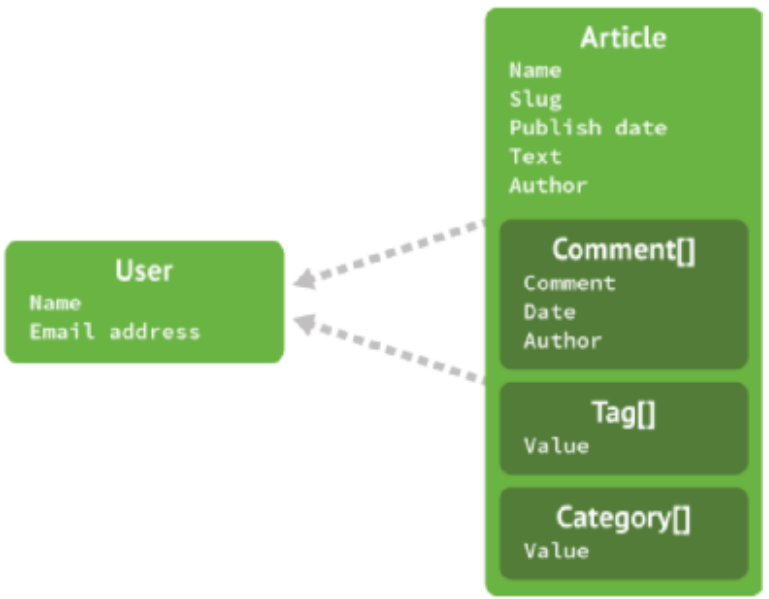
Esquema number



Caracteristicas

1. **Document-Oriented Storage**
2. Full Index Support
3. Replication y High Availability
4. Auto Sharding
5. Querying
6. Fast In Place Updates
7. Map Reduce
8. GridFS
9. Other more...

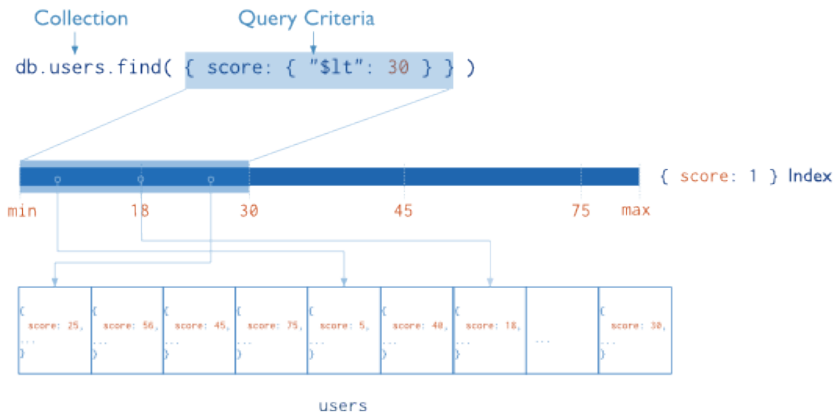
Las **colecciones** Son esquemas dinamicos, flexibles que ofrecen simplicidad y potencia.



Caracteristicas

1. Document-Oriented Storage
2. **Full Index Support**
3. Replication y High Availability
4. Auto Sharding
5. Querying
6. Fast In Place Updates
7. Map Reduce
8. GridFS
9. Other more...

Index provee alto desempeo en operaciones de lecturas.

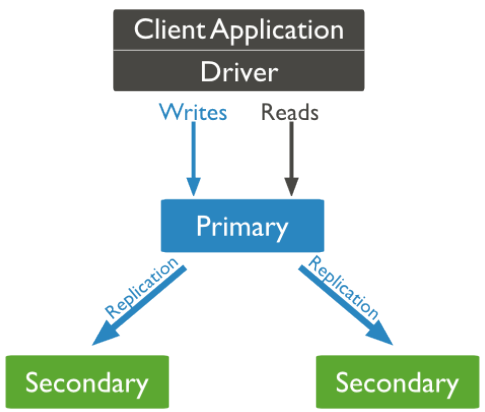


MongoDB indexa utilizando estructura de datos B-tree.

Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. **Replication y High Availability**
4. Auto Sharding
5. Querying
6. Fast In Place Updates
7. Map Reduce
8. GridFS
9. Other more...

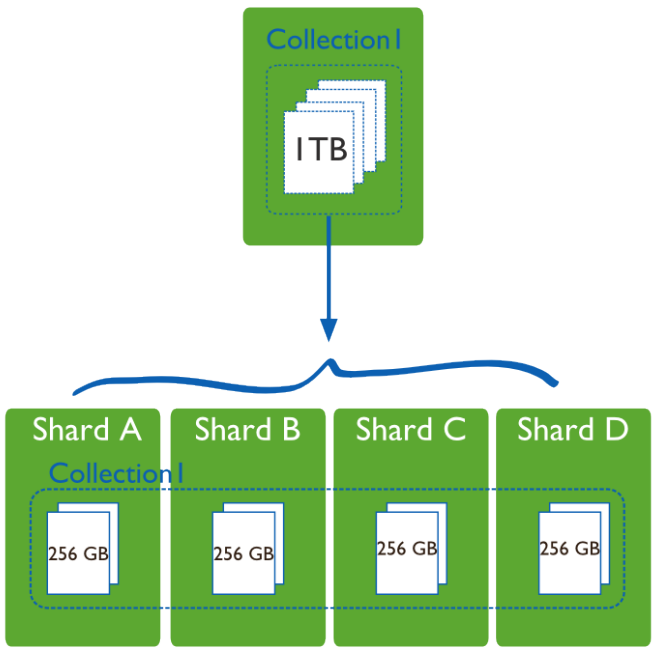
replica set en MongoDB es un grupo de procesos mongod que mantienen el mismo conjunto de datos. provee redundancia y alta disponibilidad.



Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. Replication y High Availability
4. **Auto Sharding**
5. Querying
6. Fast In Place Updates
7. Map Reduce
8. GridFS
9. Other more...

Escalar horizontalmente sin comprometer la funcionalidad.



Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. Replication y High Availability
4. Auto Sharding
5. **Querying**
6. Fast In Place Updates
7. Map Reduce
8. GridFS
9. Other more...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. Replication y High Availability
4. Auto Sharding
5. Querying
6. **Fast In Place Updates**
7. Map Reduce
8. GridFS
9. Other more...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. Replication y High Availability
4. Auto Sharding
5. Querying
6. Fast In Place Updates
7. **Map Reduce**
8. GridFS
9. Other more...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. Replication y High Availability
4. Auto Sharding
5. Querying
6. Fast In Place Updates
7. Map Reduce
8. **GridFS**
9. Other more...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Caracteristicas

1. Document-Oriented Storage
2. Full Index Support
3. Replication y High Availability
4. Auto Sharding
5. Querying
6. Fast In Place Updates
7. Map Reduce
8. GridFS
9. **Other more...**

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Instalacion

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

SHELL

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Insert Find Update Remove (CRUD)

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

DEMO =)

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Administradores graficos

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Comunidad

Treatments	**Response 1**	**Response 2**
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table : Table caption

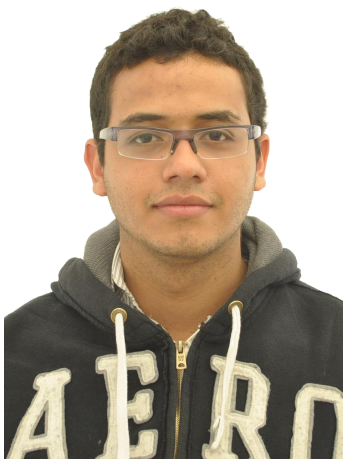
Theorem

Theorem (Mass–energy equivalence)

$E = mc^2$

Figure

Uncomment the code on this slide to include your own image from the same directory as the template .TeX file.



Citation

An example of the `\cite` command to cite within the presentation:

This statement requires citation [Smith, 2012].

References

John Smith (2012)

Title of the publication

Journal Name 12(3), 45 – 678.

Gracias !!! =)