



MongoDb Databases

Trainer: Mr. Nilesh Ghule



MongoDb: Data Types

data	bson	values
null	10	
boolean	8	true, false
number	1 / 16 / 18	123, 456.78, NumberInt("24"), NumberLong("28")
string	2	"...."
date	9	new Date(), ISODate("yyyy-mm-ddThh:mm:ss")
array	4	[..., ..., ..., ...]
object	3	{ ... }



MongoDB Terminology

- Database
 - Like database/schema in RDBMS.
 - `mongo> show databases;`
 - `mongo> use dbname;`
- Collection
 - Like table in RDBMS.
 - No fixed structure or schema.
 - `mongo> db.createCollection("colname");`
- Document
 - Like row in RDBMS.
 - Inserted in JSON format.
 - Each record can have different fields.
- Field
 - Like column in RDBMS.
 - A name-value pair in a document.



Mongo - INSERT

- show databases;
- use database;
- `db.contacts.insert({name: "nilesh", mobile: "9527331338"});`
- `db.contacts.insertMany([
 {name: "nilesh", mobile: "9527331338"},
 {name: "nitin", mobile: "9881208115"}
]);`
- Maximum document size is 16 MB.
- For each object unique id is generated by client (if `_id` not provided).
 - 12 byte unique id :: [counter(3) | pid(2) | machine(3) | timestamp(4)]



Mongo – QUERY

- `db.contacts.find();` → returns cursor on which following ops allowed:
 - `hasNext()`, `next()`, `skip(n)`, `limit(n)`, `count()`, `toArray()`, `forEach(fn)`, `pretty()`
- Shell restrict to fetch 20 records at once. Press "it" for more records.
- `db.contacts.find({ name: "nilesh" });`
- `db.contacts.find({ name: "nilesh" }, { _id:0, name:1 });`
- Relational operators: `$eq`, `$ne`, `$gt`, `$lt`, `$gte`, `$lte`, `$in`, `$nin`
- Logical operators: `$and`, ~~`$or`~~, `$nor`, `$not`
- Element operators: `$exists`, `$type`
- Evaluation operators: `$regex`, `$where`, `$mod`
- Array operators: `$size`, `$elemMatch`, `$all`, `$slice`





Thank you!

Nilesh Ghule <nilesh@sunbeaminfo.com>

