TYPES

Most Common BSON Types

▼ {...} (15) ObjectId("5acd0b867e...	{ 9 fields }	Object
☐ _id	ObjectId("5acd0b867e27e66e02f...	ObjectId
"" string	Hello World	String
▶ {...} object	{ 1 field }	Object
▶ [ ] array	[3 elements]	Array
# numberInt	10	Int32
# numberLong	3234234234234	Int64
## double	5.75	Double
T/F boolean	true	Boolean
📅 date	2018-04-10 19:07:50.109Z	Date

Types Syntax in Shell Mode

Type	Syntax
String	""
Object	{}
Array	[]
Boolean	true/false
32-bit Integer	NumberInt()
64-bit Integer	NumberLong()
Double	0.0
Date	ISODate()
ObjectId	ObjectId()

CAUTION!

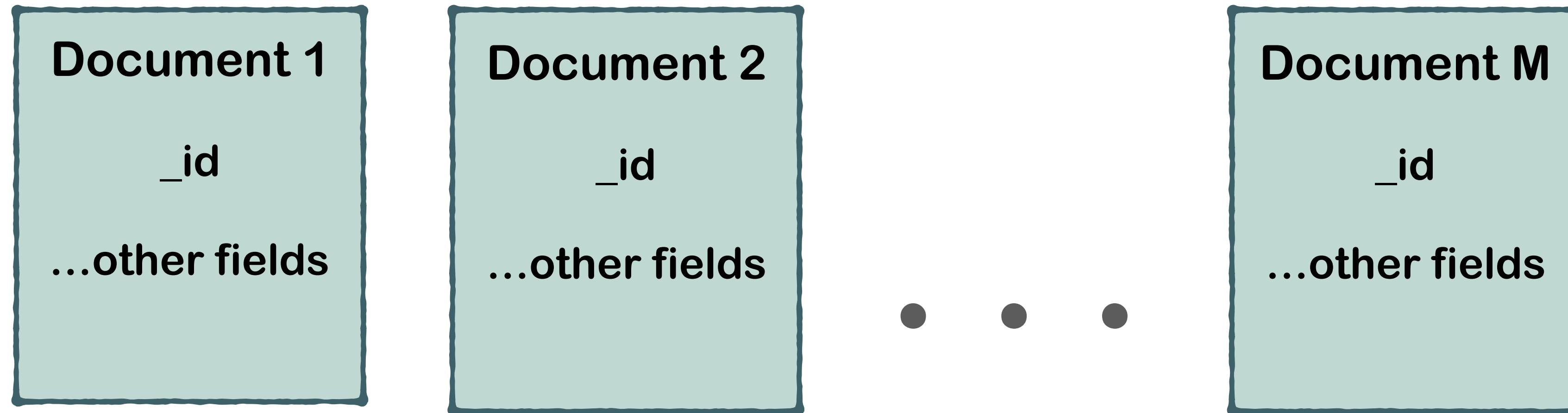**If type of the Number is not specified, it will be stored as Double BSON value**

BSON Type Identifiers

Type	Number ID	String ID
String	2	"string"
Object	3	"object"
Array	4	"array"
Boolean	8	"bool"
32-bit Integer	16	"int"
64-bit Integer	18	"long"
Double	1	"double"
Date	9	"date"
ObjectId	7	"objectId"

$type - Operator in MongoDB to query documents by BSON type

_id

Document 1	Document 2	Document M
_id	_id	_id
…other fields	…other fields	…other fields

_id:

- **Mandatory document field**
- **Can be assigned manually**
- **Will be created <u>automatically</u> if not assigned manually (recommended)**

ObjectId

_id = ObjectId("54759eb3c090d83494e2d804")

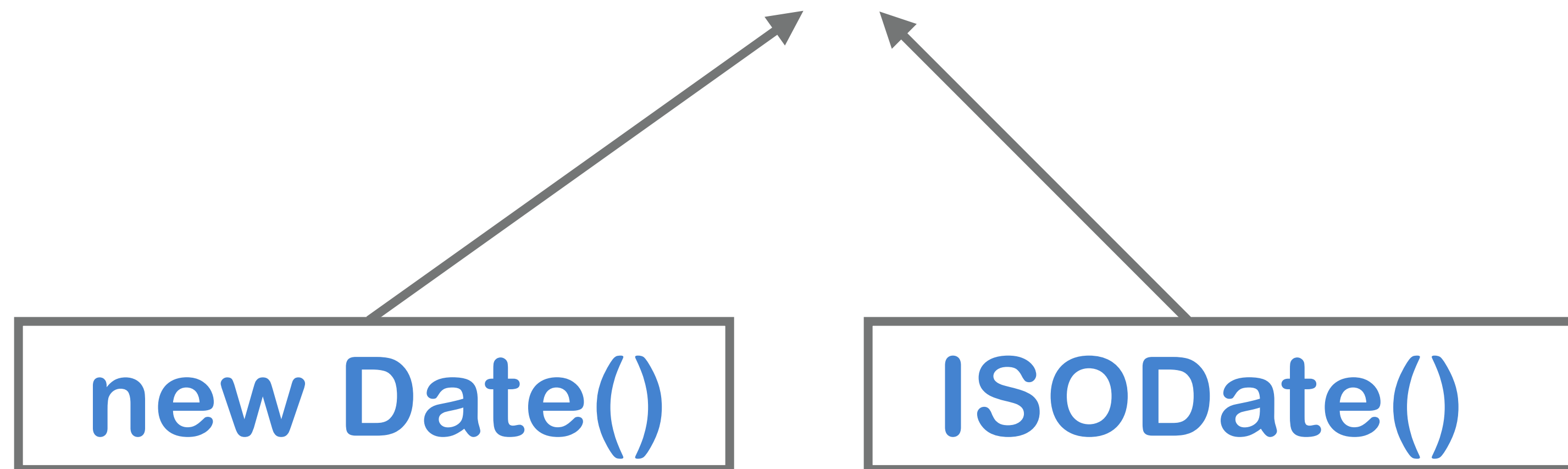| 4 Bytes | 3 Bytes | 2 B | 3 Bytes |

Date in seconds since Unix epoch

Machine ID (MD5 hash of the hostname and MAC address)

Process ID

Counter (starts from random number)

Date and ISODate

ISODate("2018-08-08T08:22:55.160Z")

new Date()   ISODate()

Automatically generates value with current time

* Date() generates Date in String format

Convert Dates to ISODate

new Date("2018-08-08")

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ISODate("2018-08-08T00:00:00Z")

new Date("August 8, 2018 13:15:00")

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ISODate("2018-08-08T10:15:00Z")

new Date(2018, 7, 8)

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ISODate("2018-08-07T21:00:00Z")

Numbers in BSON

Type	Number ID	String ID	Shell Mode Syntax
32-bit Integer	16	"int"	NumberInt()
64-bit Integer	18	"long"	NumberLong()
Double	1	"double"	-

Number Examples in BSON

Input Value	Result	Type
10	10.0	"double"
0	0.0	"double"
5.75	5.75	"double"
NumberInt(10)	10	"int"
NumberLong(1234)	1234	"long"

SUMMARY

- **MongoDB Data Types**

  Documents are stored in BSON format

  By default all numbers are stored as Double

  _id is mandatory field in each document

  ObjectId generates unique value for _id

  Dates are stored using ISODate type

  Integers can be stored using NumberInt()