



## MongoDB Physical Model

### Schema for:

Model name: docker\_reveng\_mongodb-atlas-mfliX

Author:

Version:

File name: docker\_reveng\_mongodb-atlas-mfliX.hck.json

File path: /home/hackolade/Documents/data/mongodb\_atlas/docker\_reveng\_mongodb-atlas-mfliX.hck.json

Printed On: Tue Sep 05 2023 10:25:50 GMT+0000 (Coordinated Universal Time)

Created with: [Hackolade](#) - Polyglot data modeling for NoSQL databases, storage formats, REST APIs, and JSON in RDBMS

### 1. Model

### 2. Databases

2.1 sample\_mfliX

#### 2.1.2. Collections

2.1.2.1 comments

2.1.2.2 movies

2.1.2.3 sessions

2.1.2.4 theaters

2.1.2.5 users

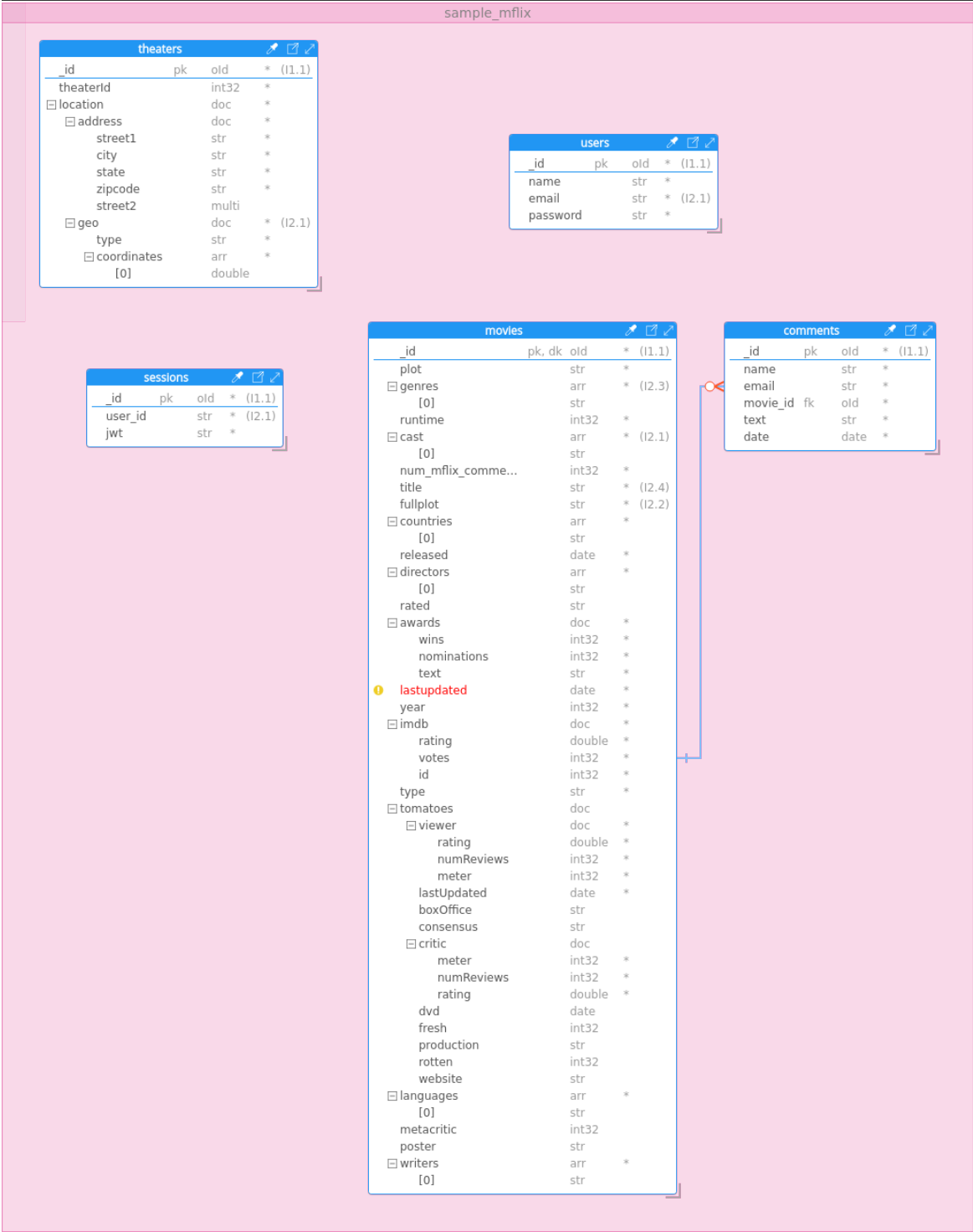
### 3. Relationships

3.1 fk movies.\_id to comments.movie\_id

## 1. MODEL

### 1.1 Model docker\_reveng\_mongodb-atlas-mfliX

#### 1.1.1 docker\_reveng\_mongodb-atlas-mfliX Entity Relationship Diagram



1.1.2 docker\_reveng\_mongodb-atlas-mflix Properties

1.1.2.1 Details tab

PROPERTY	VALUE
Model name	docker_reveng_mongodb-atlas-mflix
Technical name	
Description	
Author	
Version	
Target	MongoDB
DB version	v6.0
Synchronization Id	
Lineage capture	
Polyglot models	
Comments	

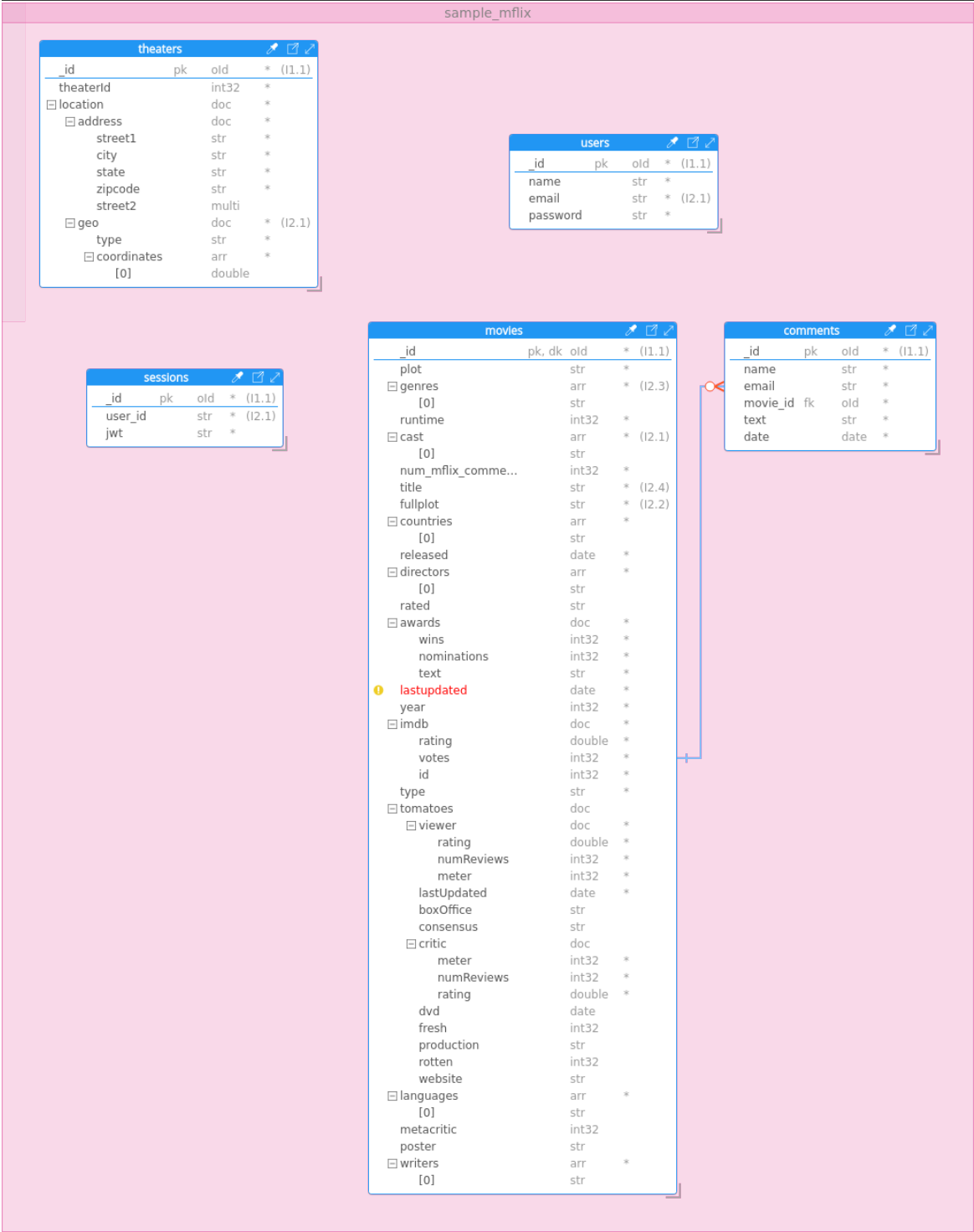
1.1.2.2 Options tab

PROPERTY	VALUE
Color	

1.1.3 docker\_reveng\_mongodb-atlas-mflix DB Definitions

2. DATABASES

2.1 Database sample\_mflix



2.1.1 sample\_mflix Properties

PROPERTY	VALUE
Database name	sample_mflix
Technical name	
Activated	true
Enable sharding	
Description	
Comments	

2.1.2 sample\_mflix Collections

2.1.2.1 Collection comments

2.1.2.1.1 comments Properties

PROPERTY	VALUE
Collection name	comments
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	WiredTiger
Config String	
Validation level	Off
Validation action	Warn
Encryption metadata	
Additional properties	true
Workload analysis	
[1] Actor	
Description	
Number of documents	
Avg document size (Bytes)	
Read-to-Write ratio	
Keep forever	
Retention (months)	
Write operations	
Read operations	
Comments	

2.1.2.1.2 comments Fields

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
_id	objectId	true	pk		
name	string	true			
email	string	true			
movie_id	objectId	true	fk		
text	string	true			
date	date	true			

2.1.2.1.2.1 Field \_id

2.1.2.1.2.1.1 \_id Tree Diagram

{_id}	_id
(11.1)	objectId

2.1.2.1.2.1.2 \_id properties

PROPERTY	VALUE
Name	_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	objectId
Description	
Dependencies	
Required	true
Primary key	true
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Sample	
Comments	

2.1.2.1.2.2 Field name

2.1.2.1.2.2.1 name Tree Diagram

{ABC}    name
string

2.1.2.1.2.2.2 name properties

PROPERTY	VALUE
Name	name
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Shireen Baratheon
Comments	

2.1.2.1.2.3 Field email

2.1.2.1.2.3.1 email Tree Diagram

{ABC} email
string

**2.1.2.1.2.3.2 email properties**

PROPERTY	VALUE
Name	email
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	kerry_ingram@gameofthron.es
Comments	

**2.1.2.1.2.4 Field movie\_id****2.1.2.1.2.4.1 movie\_id Tree Diagram**

<b>{_id}</b>	<b>movie_id</b>
	<i>objectId</i>



2.1.2.1.2.4.2 movie\_id properties

PROPERTY	VALUE
Name	movie_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	objectId
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	movies
Foreign field	_id
Relationship type	Foreign Key
Relationship name	fk movies._id to comments.movie_id
Cardinality	0..n
Default	
Sample	
Comments	

2.1.2.1.2.5 Field text

2.1.2.1.2.5.1 text Tree Diagram

{ABC} text
string

2.1.2.1.2.5.2 text properties

PROPERTY	VALUE
Name	text
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Voluptates eveniet praesentium magni id inventore eum. Magnam saepe quos perspiciatis tempora.
Comments	

2.1.2.1.2.6 Field date

2.1.2.1.2.6.1 date Tree Diagram

{dt}	date
	date

**2.1.2.1.2.6.2 date properties**

PROPERTY	VALUE
Name	date
Technical name	
Activated	true
Id	
Field-level encryption	
Type	date
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Now	
Faker function	
Sample	
Comments	

**2.1.2.1.3 comments Indexes**

PROPERTY	_ID_
Name	_id_
Activated	
Key	_id('ascending')
Wildcard index	
Hashed	
Unique	
Drop duplicates	
Sparse	
Background indexing	
Partial filter exp	
Expire after (seconds)	
Storage engine	
Comments	

**2.1.2.1.4 comments JSON Schema**

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "comments",
  "properties": {
    "_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "name": {
      "type": "string"
    },
    "email": {
      "type": "string"
    },
    "movie_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "text": {
      "type": "string"
    },
    "date": {
      "type": "string",
      "format": "date-time"
    }
  },
  "additionalProperties": true,
  "required": [
    "_id",
    "name",
    "email",
    "movie_id",
    "text",
    "date"
  ]
}
```

#### 2.1.2.1.5 comments JSON data

```
{
  "_id": ObjectId("1bf8ac3aa80ff0ef598afdc4"),
  "name": "Shireen Baratheon",
  "email": "kerry_ingram@gameofthron.es",
  "movie_id": ObjectId("e93cc3dbac4303fc1d625ae5"),
  "text": "Voluptates eveniet praesentium magni id inventore eum. Magnam saepe quos perspiciatis tempora.",
  "date": ISODate("2016-04-08T15:06:21.595Z")
}
```

#### 2.1.2.1.6 comments Target Script

```
use sample_mflix;

db.createCollection("comments", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "comments",
      "properties": {
        "_id": {
          "bsonType": "objectId"
        },
        "name": {
          "bsonType": "string"
        },
        "email": {
          "bsonType": "string"
        },
        "movie_id": {
          "bsonType": "objectId"
        },
        "text": {
          "bsonType": "string"
        },
        "date": {
          "bsonType": "date"
        }
      },
      "additionalProperties": true,
      "required": [
        "_id",
        "name",
        "email",
        "movie_id",
        "text",
        "date"
      ]
    }
  },
  "validationLevel": "off",
  "validationAction": "warn"
});

db.comments.createIndex({
  "_id": 1
},
{
  "name": "_id_"
});
```

### 2.1.2.2 Collection movies

#### 2.1.2.2.1 movies Properties

PROPERTY	VALUE
Collection name	movies
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	<a href="#">sample_mflix</a>
Capped	
Time series	
Size	
Max	
Storage engine	WiredTiger
Config String	
Validation level	Off
Validation action	Warn
Encryption metadata	
Additional properties	true
<b>Workload analysis</b>	
[1] Actor	
Description	
Number of documents	
Avg document size (Bytes)	
Read-to-Write ratio	
Keep forever	
Retention (months)	
Write operations	
Read operations	
Comments	

#### 2.1.2.2.2 movies Fields

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
_id	objectId	true	pk, dk		
plot	string	true			
genres	array	true			
[0]	string	false			
runtime	integer32	true			
cast	array	true			
[0]	string	false			
num_mflix_comments	integer32	true			
title	string	true			
fullplot	string	true			
countries	array	true			
[0]	string	false			
released	date	true			
directors	array	true			
[0]	string	false			
rated	string	false			
awards	document	true			
wins	integer32	true			
nominations	integer32	true			
text	string	true			
lastupdated	date	true			
year	integer32	true			
imdb	document	true			
rating	double	true			
votes	integer32	true			
id	integer32	true			
type	string	true			
tomatoes	document	false			
viewer	document	true			
rating	double	true			
numReviews	integer32	true			
meter	integer32	true			
lastUpdated	date	true			
boxOffice	string	false			
consensus	string	false			
critic	document	false			
meter	integer32	true			
numReviews	integer32	true			
rating	double	true			
dvd	date	false			
fresh	integer32	false			
production	string	false			
rotten	integer32	false			
website	string	false			
languages	array	true			
[0]	string	false			
metacritic	integer32	false			
poster	string	false			

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
writers	array	true			
[0]	string	false			

2.1.2.2.2.1 Field \_id

2.1.2.2.2.1.1 \_id Tree Diagram

{_id}	_id
(11.1)	objectId

2.1.2.2.2.1.2 \_id properties

PROPERTY	VALUE
Name	_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	objectId
Description	
Dependencies	
Required	true
Primary key	true
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Sample	
Comments	

2.1.2.2.2.2 Field plot

2.1.2.2.2.2.1 plot Tree Diagram

{ABC}	plot
	string



2.1.2.2.2.2.2 plot properties

PROPERTY	VALUE
Name	plot
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	The world famous singing pre-teen chipmunk trio return to contend with the pressures of school, celebrity, and a rival female music group known as The Chipettes.
Comments	

2.1.2.2.2.3 Field genres

2.1.2.2.2.3.1 genres Tree Diagram



2.1.2.2.2.3.2 genres Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.3.3 genres properties

PROPERTY	VALUE
Name	genres
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.2.2.4 Field [0]

2.1.2.2.2.4.1 [0] Tree Diagram



2.1.2.2.2.4.2 [0] properties

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Primary key	
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Action
Comments	

2.1.2.2.2.5 Field runtime

2.1.2.2.2.5.1 runtime Tree Diagram

{123}	runtime
	numeric

2.1.2.2.2.5.2 runtime properties

PROPERTY	VALUE
Name	runtime
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	115
Comments	

2.1.2.2.2.6 Field cast

2.1.2.2.2.6.1 cast Tree Diagram



2.1.2.2.2.6.2 cast Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.6.3 cast properties

PROPERTY	VALUE
Name	cast
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.2.2.7 Field [0]

2.1.2.2.2.7.1 [0] Tree Diagram



2.1.2.2.2.7.2 [0] properties

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Primary key	
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Ben Affleck
Comments	

2.1.2.2.2.8 Field num\_mflix\_comments

2.1.2.2.2.8.1 num\_mflix\_comments Tree Diagram

{123}	num_mflix_comments
	numeric

2.1.2.2.2.8.2 num\_mflix\_comments properties

PROPERTY	VALUE
Name	num_mflix_comments
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	1
Comments	

2.1.2.2.2.9 Field title

2.1.2.2.2.9.1 title Tree Diagram

{ABC}	title
(I2.4)	string

2.1.2.2.2.9.2 title properties

PROPERTY	VALUE
Name	title
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Alvin and the Chipmunks: The Squeakquel
Comments	

2.1.2.2.2.10 Field fullplot

2.1.2.2.2.10.1 fullplot Tree Diagram

{ABC}	fullplot
(12.2)	string



2.1.2.2.2.10.2 fullplot properties

PROPERTY	VALUE
Name	fullplot
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	After a concert mishap lands Dave in the hospital, Alvin, Simon, and Theodore end up in the care of Dave's twenty-something cousin Toby. When the Chipmunks put aside their stardom to return to school to win a annual "Battle of the Bands" competition to save the school's music program. But the boys meet their match with the Chipettes, Brittany, Jeanette, & Eleanor, who are working for the Chipmunks's ex-manager Ian Hawke. Romantic sparks and crazy mishaps happen when the Chipmunks and Chipettes square off.
Comments	

2.1.2.2.2.11 Field countries

2.1.2.2.2.11.1 countries Tree Diagram



2.1.2.2.2.11.2 countries Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.11.3 countries properties

PROPERTY	VALUE
Name	countries
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.2.2.12 Field [0]

2.1.2.2.2.12.1 [0] Tree Diagram



2.1.2.2.2.12.2 [0] properties

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Primary key	
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	USA
Comments	

2.1.2.2.2.13 Field released

2.1.2.2.2.13.1 released Tree Diagram

{dt}	released
	date

2.1.2.2.2.13.2 released properties

PROPERTY	VALUE
Name	released
Technical name	
Activated	true
Id	
Field-level encryption	
Type	date
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Now	
Faker function	
Sample	
Comments	

2.1.2.2.2.14 Field directors

2.1.2.2.2.14.1 directors Tree Diagram



2.1.2.2.2.14.2 directors Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.14.3 directors properties

PROPERTY	VALUE
Name	directors
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.2.2.15 Field [0]

2.1.2.2.2.15.1 [0] Tree Diagram



2.1.2.2.2.15.2 [0] properties

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Primary key	
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Mark Steven Johnson
Comments	

2.1.2.2.2.16 Field rated

2.1.2.2.2.16.1 rated Tree Diagram

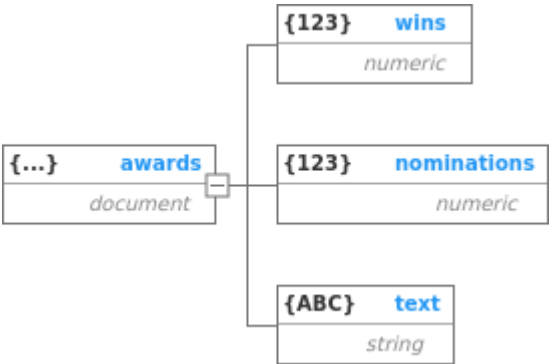


2.1.2.2.2.16.2 rated properties

PROPERTY	VALUE
Name	rated
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	PG
Comments	

2.1.2.2.2.17 Field awards

2.1.2.2.2.17.1 awards Tree Diagram



2.1.2.2.2.17.2 awards Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
wins	numeric	true			
nominations	numeric	true			
text	string	true			

2.1.2.2.2.17.3 awards properties

PROPERTY	VALUE
Name	awards
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.2.2.18 Field wins

2.1.2.2.2.18.1 wins Tree Diagram

{123}	wins
numeric	



2.1.2.2.2.18.2 wins properties

PROPERTY	VALUE
Name	wins
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	25
Comments	

2.1.2.2.2.19 Field nominations

2.1.2.2.2.19.1 nominations Tree Diagram

{123}	<b>nominations</b>
	<i>numeric</i>

2.1.2.2.2.19.2 nominations properties

PROPERTY	VALUE
Name	nominations
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	16
Comments	

2.1.2.2.2.20 Field text

2.1.2.2.2.20.1 text Tree Diagram

{ABC}	text
string	

2.1.2.2.20.2 text properties

PROPERTY	VALUE
Name	text
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	2 wins.
Comments	

2.1.2.2.21 Field lastupdated

2.1.2.2.21.1 lastupdated Tree Diagram

{dt}  lastupdated
date

2.1.2.2.21.2 lastupdated properties

PROPERTY	VALUE
Name	lastupdated
Technical name	
Activated	true
Id	
Field-level encryption	
Type	date
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Now	
Faker function	
Sample	ISODate("2015-08-18 00:21:44.220000000")
Comments	

2.1.2.2.22 Field year

2.1.2.2.22.1 year Tree Diagram

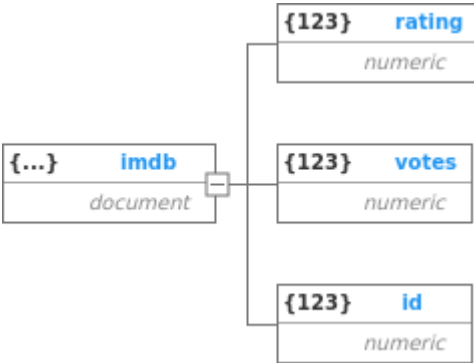
{123}	year
	numeric

**2.1.2.2.22.2 year properties**

PROPERTY	VALUE
Name	year
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	2009
Comments	

**2.1.2.2.23 Field imdb**

2.1.2.2.23.1 imdb Tree Diagram



2.1.2.2.23.2 imdb Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
rating	numeric	true			
votes	numeric	true			
id	numeric	true			

2.1.2.2.23.3 imdb properties

PROPERTY	VALUE
Name	imdb
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.2.24 Field rating

2.1.2.2.24.1 rating Tree Diagram



2.1.2.2.24.2 rating properties

PROPERTY	VALUE
Name	rating
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	double
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	5.3
Comments	

2.1.2.2.25 Field votes

2.1.2.2.25.1 votes Tree Diagram

{123}	votes
	numeric

2.1.2.2.25.2 votes properties

PROPERTY	VALUE
Name	votes
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	162692
Comments	

2.1.2.2.26 Field id

2.1.2.2.26.1 id Tree Diagram

{123}	id
	numeric



2.1.2.2.26.2 id properties

PROPERTY	VALUE
Name	id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	1231580
Comments	

2.1.2.2.27 Field type

2.1.2.2.27.1 type Tree Diagram

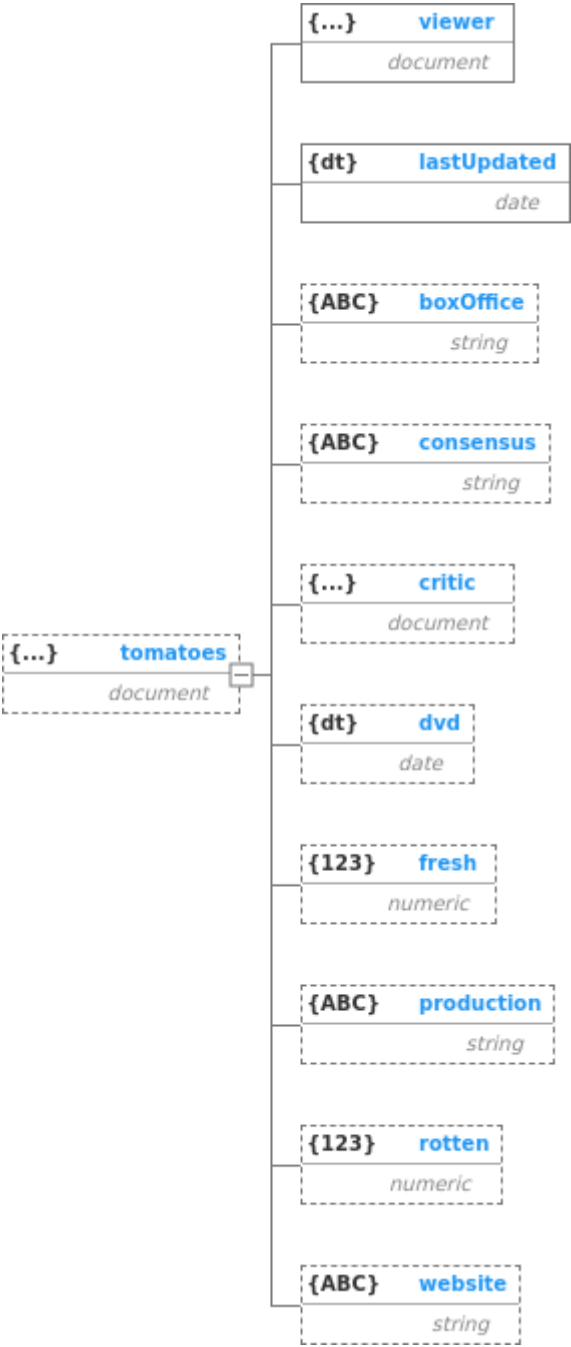
{ABC}	type
	string

2.1.2.2.27.2 type properties

PROPERTY	VALUE
Name	type
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	movie
Comments	

2.1.2.2.28 Field tomatoes

2.1.2.2.28.1 tomatoes Tree Diagram



2.1.2.2.28.2 tomatoes Hierarchy

Parent field: **movies**  
Child field(s):

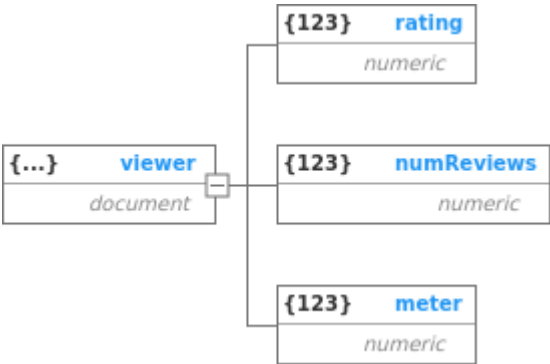
FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
viewer	document	true			
lastUpdated	date	true			
boxOffice	string	false			
consensus	string	false			
critic	document	false			
dvd	date	false			
fresh	numeric	false			
production	string	false			
rotten	numeric	false			
website	string	false			

2.1.2.2.28.3 tomatoes properties

PROPERTY	VALUE
Name	tomatoes
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.2.29 Field viewer

2.1.2.2.29.1 viewer Tree Diagram



2.1.2.2.29.2 viewer Hierarchy

Parent field: **tomatoes**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
rating	numeric	true			
numReviews	numeric	true			
meter	numeric	true			

2.1.2.2.2.29.3 viewer properties

PROPERTY	VALUE
Name	viewer
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.2.2.30 Field rating

2.1.2.2.2.30.1 rating Tree Diagram

{123}	rating
numeric	

2.1.2.2.2.30.2 rating properties

PROPERTY	VALUE
Name	rating
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	double
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	2.8
Comments	

2.1.2.2.2.31 Field numReviews

2.1.2.2.2.31.1 numReviews Tree Diagram

{123}	numReviews
	numeric

2.1.2.2.2.31.2 numReviews properties

PROPERTY	VALUE
Name	numReviews
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	467245
Comments	

2.1.2.2.2.32 Field meter

2.1.2.2.2.32.1 meter Tree Diagram

{123}	meter
	numeric

2.1.2.2.2.32.2 meter properties

PROPERTY	VALUE
Name	meter
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	90
Comments	

2.1.2.2.2.33 Field lastUpdated

2.1.2.2.2.33.1 lastUpdated Tree Diagram

{dt}	lastUpdated
	date



2.1.2.2.2.33.2 lastUpdated properties

PROPERTY	VALUE
Name	lastUpdated
Technical name	
Activated	true
Id	
Field-level encryption	
Type	date
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Now	
Faker function	
Sample	
Comments	

2.1.2.2.2.34 Field boxOffice

2.1.2.2.2.34.1 boxOffice Tree Diagram



2.1.2.2.2.34.2 boxOffice properties

PROPERTY	VALUE
Name	boxOffice
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	\$219.3M
Comments	

2.1.2.2.2.35 Field consensus

2.1.2.2.2.35.1 consensus Tree Diagram

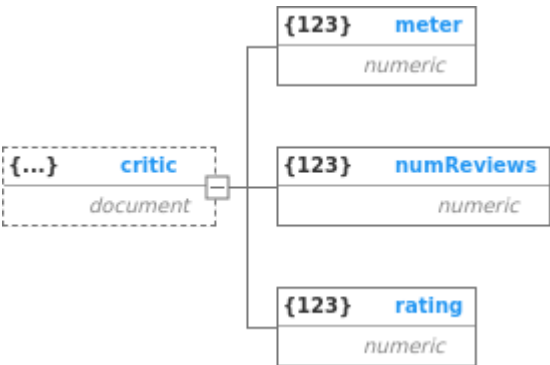


2.1.2.2.2.35.2 consensus properties

PROPERTY	VALUE
Name	consensus
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	This Squeakquel may entertain the kiddies, but it's low on energy and heavily reliant on slapstick humor.
Comments	

2.1.2.2.2.36 Field critic

2.1.2.2.2.36.1 critic Tree Diagram



2.1.2.2.2.36.2 critic Hierarchy

Parent field: **tomatoes**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
meter	numeric	true			
numReviews	numeric	true			
rating	numeric	true			

2.1.2.2.2.36.3 critic properties

PROPERTY	VALUE
Name	critic
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.2.2.37 Field meter

2.1.2.2.2.37.1 meter Tree Diagram

{123}	meter
numeric	

2.1.2.2.2.37.2 meter properties

PROPERTY	VALUE
Name	meter
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	100
Comments	

2.1.2.2.2.38 Field numReviews

2.1.2.2.2.38.1 numReviews Tree Diagram

{123}	numReviews
	numeric

**2.1.2.2.2.38.2 numReviews properties**

PROPERTY	VALUE
Name	numReviews
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	221
Comments	

**2.1.2.2.2.39 Field rating****2.1.2.2.2.39.1 rating Tree Diagram**

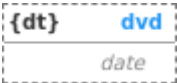
<b>{123}</b>	<b>rating</b>
	<i>numeric</i>

2.1.2.2.2.39.2 rating properties

PROPERTY	VALUE
Name	rating
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	double
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	5.2
Comments	

2.1.2.2.2.40 Field dvd

2.1.2.2.2.40.1 dvd Tree Diagram



2.1.2.2.2.40.2 dvd properties

PROPERTY	VALUE
Name	dvd
Technical name	
Activated	true
Id	
Field-level encryption	
Type	date
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Now	
Faker function	
Sample	
Comments	

2.1.2.2.2.41 Field fresh

2.1.2.2.2.41.1 fresh Tree Diagram





2.1.2.2.2.41.2 fresh properties

PROPERTY	VALUE
Name	fresh
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	98
Comments	

2.1.2.2.2.42 Field production

2.1.2.2.2.42.1 production Tree Diagram



2.1.2.2.2.42.2 production properties

PROPERTY	VALUE
Name	production
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	20th Century Fox
Comments	

2.1.2.2.2.43 Field rotten

2.1.2.2.2.43.1 rotten Tree Diagram



2.1.2.2.2.43.2 rotten properties

PROPERTY	VALUE
Name	rotten
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	123
Comments	

2.1.2.2.2.44 Field website

2.1.2.2.2.44.1 website Tree Diagram



**2.1.2.2.2.44.2 website properties**

PROPERTY	VALUE
Name	website
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	http://www.chipmunks.com/
Comments	

**2.1.2.2.2.45 Field languages****2.1.2.2.2.45.1 languages Tree Diagram****2.1.2.2.2.45.2 languages Hierarchy**Parent field: **movies**

Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.45.3 languages properties

PROPERTY	VALUE
Name	languages
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.2.2.46 Field [0]

2.1.2.2.2.46.1 [0] Tree Diagram



2.1.2.2.2.46.2 [0] properties

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Primary key	
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	English
Comments	

2.1.2.2.2.47 Field metacritic

2.1.2.2.2.47.1 metacritic Tree Diagram



2.1.2.2.2.47.2 metacritic properties

PROPERTY	VALUE
Name	metacritic
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	84
Comments	

2.1.2.2.2.48 Field poster

2.1.2.2.2.48.1 poster Tree Diagram



2.1.2.2.2.48.2 poster properties

PROPERTY	VALUE
Name	poster
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	https://m.media-amazon.com/images/M/MV5BMGM5Zjg0MzktYmZmZC00OWU5LTgzZDQtODM1NjdjMGE4ZDVlXkEyXkFqcGdeQXVyMTQxNzMzNDI@._V1_SY1000_SX677_AL_.jpg
Comments	

2.1.2.2.2.49 Field writers

2.1.2.2.2.49.1 writers Tree Diagram



2.1.2.2.2.49.2 writers Hierarchy

Parent field: **movies**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			



2.1.2.2.2.49.3 writers properties

PROPERTY	VALUE
Name	writers
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.2.2.50 Field [0]

2.1.2.2.2.50.1 [0] Tree Diagram



**2.1.2.2.2.50.2 [0] properties**

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Primary key	
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Mark Steven Johnson (screenplay)
Comments	

**2.1.2.2.3 movies Indexes**

PROPERTY	_ID_	CAST_TEXT_FULLPLOT_TEXT_GENRES_TEXT_TITLE_TEXT
Name	_id_	cast_text_fullplot_text_genres_text_title_text
Activated		
Key	_id('ascending')	cast('text'), fullplot('text'), genres('text'), title('text')
Wildcard index		
Hashed		
Unique		
Drop duplicates		
Sparse		
Background indexing		
Partial filter exp		
Expire after (seconds)		
Storage engine		
Comments		

**2.1.2.2.4 movies JSON Schema**

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "movies",
  "properties": {
    "_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "plot": {
      "type": "string"
    },
    "genres": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
    "runtime": {
      "type": "integer"
    },
    "cast": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
    "num_mflix_comments": {
      "type": "integer"
    },
    "title": {
      "type": "string"
    },
    "fullplot": {
      "type": "string"
    },
    "countries": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
    "released": {
      "type": "string",
      "format": "date-time"
    },
    "directors": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
    "rated": {
      "type": "string"
    },
    "awards": {
```

```
"type": "object",
"properties": {
  "wins": {
    "type": "integer"
  },
  "nominations": {
    "type": "integer"
  },
  "text": {
    "type": "string"
  }
},
"additionalProperties": true,
"required": [
  "wins",
  "nominations",
  "text"
],
},
"lastupdated": {
  "type": "string",
  "format": "date-time"
},
"year": {
  "type": "integer"
},
"imdb": {
  "type": "object",
  "properties": {
    "rating": {
      "type": "number"
    },
    "votes": {
      "type": "integer"
    },
    "id": {
      "type": "integer"
    }
  },
  "additionalProperties": true,
  "required": [
    "rating",
    "votes",
    "id"
  ],
},
"type": {
  "type": "string"
},
"tomatoes": {
  "type": "object",
  "properties": {
    "viewer": {
      "type": "object",
      "properties": {
        "rating": {
          "type": "number"
        },
        "numReviews": {
          "type": "integer"
        }
      },

```

```
    "meter": {
      "type": "integer"
    },
    "additionalProperties": true,
    "required": [
      "rating",
      "numReviews",
      "meter"
    ]
  },
  "lastUpdated": {
    "type": "string",
    "format": "date-time"
  },
  "boxOffice": {
    "type": "string"
  },
  "consensus": {
    "type": "string"
  },
  "critic": {
    "type": "object",
    "properties": {
      "meter": {
        "type": "integer"
      },
      "numReviews": {
        "type": "integer"
      },
      "rating": {
        "type": "number"
      }
    }
  },
  "additionalProperties": true,
  "required": [
    "meter",
    "numReviews",
    "rating"
  ]
},
"dvd": {
  "type": "string",
  "format": "date-time"
},
"fresh": {
  "type": "integer"
},
"production": {
  "type": "string"
},
"rotten": {
  "type": "integer"
},
"website": {
  "type": "string"
}
},
"additionalProperties": true,
"required": [
  "viewer",
```

```
        "lastUpdated"
      ]
    },
    "languages": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
    "metacritic": {
      "type": "integer"
    },
    "poster": {
      "type": "string"
    },
    "writers": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    }
  },
  "additionalProperties": true,
  "required": [
    "_id",
    "plot",
    "genres",
    "runtime",
    "cast",
    "num_mflix_comments",
    "title",
    "fullplot",
    "countries",
    "released",
    "directors",
    "awards",
    "lastupdated",
    "year",
    "imdb",
    "type",
    "languages",
    "writers"
  ]
}
```

#### 2.1.2.2.5 movies JSON data

```

{
  "_id": ObjectId("6c091cffda269eb0c76b1ecf"),
  "plot": "The world famous singing pre-teen chipmunk trio return to contend with the pressures of school,
celebrity, and a rival female music group known as The Chipettes.",
  "genres": [
    "Action"
  ],
  "runtime": Int32(115),
  "cast": [
    "Ben Affleck"
  ],
  "num_mflix_comments": Int32(1),
  "title": "Alvin and the Chipmunks: The Squeakquel",
  "fullplot": "After a concert mishap lands Dave in the hospital, Alvin, Simon, and Theodore end up in the care of
Dave's twenty-something cousin Toby. When the Chipmunks put aside their stardom to return to school to win a
annual 'Battle of the Bands' competition to save the school's music program. But the boys meet their match with
the Chipettes, Brittany, Jeanette, & Eleanor, who are working for the Chipmunks's ex-manager Ian Hawke. Romantic
sparks and crazy mishaps happen when the Chipmunks and Chipettes square off.",
  "countries": [
    "USA"
  ],
  "released": ISODate("2016-04-08T15:06:21.595Z"),
  "directors": [
    "Mark Steven Johnson"
  ],
  "rated": "PG",
  "awards": {
    "wins": Int32(25),
    "nominations": Int32(16),
    "text": "2 wins."
  },
  "lastupdated": ISODate("2016-04-08T15:06:21.595Z"),
  "year": Int32(2009),
  "imdb": {
    "rating": Double(5.3),
    "votes": Int32(162692),
    "id": Int32(1231580)
  },
  "type": "movie",
  "tomatoes": {
    "viewer": {
      "rating": Double(2.8),
      "numReviews": Int32(467245),
      "meter": Int32(90)
    },
    "lastUpdated": ISODate("2016-04-08T15:06:21.595Z"),
    "boxOffice": "$219.3M",
    "consensus": "This Squeakquel may entertain the kiddies, but it's low on energy and heavily reliant on
slapstick humor.",
    "critic": {
      "meter": Int32(100),
      "numReviews": Int32(221),
      "rating": Double(5.2)
    },
    "dvd": ISODate("2016-04-08T15:06:21.595Z"),
    "fresh": Int32(98),
    "production": "20th Century Fox",
    "rotten": Int32(123),
    "website": "http://www.chipmunks.com/"
  },
}

```

```
"languages": [  
  "English"  
],  
"metacritic": Int32(84),  
"poster": "https://m.media-  
amazon.com/images/M/MV5BMGM5Zjg0MzktYmZmZC00OWU5LTgzZDQtODM1NjdjMGE4ZDVIXkEyXkFqcGdeQXVyMTQxNzMzNDI@._V1_SY1000_SX677_AL_.jpg",  
"writers": [  
  "Mark Steven Johnson (screenplay)"  
]  
}
```

#### 2.1.2.2.6 movies Target Script



```
use sample_mflix;

db.createCollection("movies", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "movies",
      "properties": {
        "_id": {
          "bsonType": "objectId"
        },
        "plot": {
          "bsonType": "string"
        },
        "genres": {
          "bsonType": "array",
          "additionalItems": true,
          "items": {
            "bsonType": "string"
          }
        },
        "runtime": {
          "bsonType": "int"
        },
        "cast": {
          "bsonType": "array",
          "additionalItems": true,
          "items": {
            "bsonType": "string"
          }
        },
        "num_mflix_comments": {
          "bsonType": "int"
        },
        "title": {
          "bsonType": "string"
        },
        "fullplot": {
          "bsonType": "string"
        },
        "countries": {
          "bsonType": "array",
          "additionalItems": true,
          "items": {
            "bsonType": "string"
          }
        },
        "released": {
          "bsonType": "date"
        },
        "directors": {
          "bsonType": "array",
          "additionalItems": true,
          "items": {
            "bsonType": "string"
          }
        },
        "rated": {
          "bsonType": "string"
        }
      }
    }
  }
})
```

```
    },
    "awards": {
      "bsonType": "object",
      "properties": {
        "wins": {
          "bsonType": "int"
        },
        "nominations": {
          "bsonType": "int"
        },
        "text": {
          "bsonType": "string"
        }
      }
    },
    "additionalProperties": true,
    "required": [
      "wins",
      "nominations",
      "text"
    ]
  },
  "lastupdated": {
    "bsonType": "date"
  },
  "year": {
    "bsonType": "int"
  },
  "imdb": {
    "bsonType": "object",
    "properties": {
      "rating": {
        "bsonType": "double"
      },
      "votes": {
        "bsonType": "int"
      },
      "id": {
        "bsonType": "int"
      }
    },
    "additionalProperties": true,
    "required": [
      "rating",
      "votes",
      "id"
    ]
  },
  "type": {
    "bsonType": "string"
  },
  "tomatoes": {
    "bsonType": "object",
    "properties": {
      "viewer": {
        "bsonType": "object",
        "properties": {
          "rating": {
            "bsonType": "double"
          },
          "numReviews": {
            "bsonType": "int"
          }
        }
      }
    }
  }
}
```

```
    },
    "meter": {
      "bsonType": "int"
    }
  },
  "additionalProperties": true,
  "required": [
    "rating",
    "numReviews",
    "meter"
  ]
},
"lastUpdated": {
  "bsonType": "date"
},
"boxOffice": {
  "bsonType": "string"
},
"consensus": {
  "bsonType": "string"
},
"critic": {
  "bsonType": "object",
  "properties": {
    "meter": {
      "bsonType": "int"
    },
    "numReviews": {
      "bsonType": "int"
    },
    "rating": {
      "bsonType": "double"
    }
  }
},
"additionalProperties": true,
"required": [
  "meter",
  "numReviews",
  "rating"
]
},
"dvd": {
  "bsonType": "date"
},
"fresh": {
  "bsonType": "int"
},
"production": {
  "bsonType": "string"
},
"rotten": {
  "bsonType": "int"
},
"website": {
  "bsonType": "string"
}
},
"additionalProperties": true,
"required": [
  "viewer",
  "lastUpdated"
```

```

    ]
  },
  "languages": {
    "bsonType": "array",
    "additionalItems": true,
    "items": {
      "bsonType": "string"
    }
  },
  "metacritic": {
    "bsonType": "int"
  },
  "poster": {
    "bsonType": "string"
  },
  "writers": {
    "bsonType": "array",
    "additionalItems": true,
    "items": {
      "bsonType": "string"
    }
  }
},
"additionalProperties": true,
"required": [
  "_id",
  "plot",
  "genres",
  "runtime",
  "cast",
  "num_mflix_comments",
  "title",
  "fullplot",
  "countries",
  "released",
  "directors",
  "awards",
  "lastupdated",
  "year",
  "imdb",
  "type",
  "languages",
  "writers"
]
}
},
"validationLevel": "off",
"validationAction": "warn"
});

db.movies.createIndex({
  "_id": 1
},
{
  "name": "_id_"
});

db.movies.createIndex({
  "cast": "text",
  "fullplot": "text",
  "genres": "text",

```

```
"title": "text"
},
{
  "name": "cast_text_fullplot_text_genres_text_title_text",
  "weights": {
    "cast": 1,
    "fullplot": 1,
    "genres": 1,
    "title": 1
  },
  "default_language": "english",
  "language_override": "language",
  "textIndexVersion": 3
});
```

2.1.2.3 Collection sessions

2.1.2.3.1 sessions Properties

PROPERTY	VALUE
Collection name	sessions
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	WiredTiger
Config String	
Validation level	Off
Validation action	Warn
Encryption metadata	
Additional properties	true
Workload analysis	
[1] Actor	
Description	
Number of documents	
Avg document size (Bytes)	
Read-to-Write ratio	
Keep forever	
Retention (months)	
Write operations	
Read operations	
Comments	

2.1.2.3.2 sessions Fields

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
_id	objectId	true	pk		
user_id	string	true			
jwt	string	true			

2.1.2.3.2.1 Field \_id

2.1.2.3.2.1.1 \_id Tree Diagram

{_id}	_id
(I1.1)	objectId

2.1.2.3.2.1.2 \_id properties

PROPERTY	VALUE
Name	_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	objectId
Description	
Dependencies	
Required	true
Primary key	true
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Sample	
Comments	

2.1.2.3.2.2 Field user\_id

2.1.2.3.2.2.1 user\_id Tree Diagram

{ABC}	user_id
(I2.1)	string

2.1.2.3.2.2 user\_id properties

PROPERTY	VALUE
Name	user_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	t3qulfeem@kwiv5.6ur
Comments	

2.1.2.3.2.3 Field jwt

2.1.2.3.2.3.1 jwt Tree Diagram

{ABC}	jwt
	string

### 2.1.2.3.2.3.2 jwt properties

PROPERTY	VALUE
Name	jwt
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpYXQiOiE1MTk5MDkzMjEsIm5iZiI6MTUxOTkwOTMyMSwianRpljoiNmJlZDAwMWYtNTFiYi00NzVhLTgxZDAtMDcwNGE5Mjk0MWZlIiwiaXhwaWljoxNTE5OTEwMjlxLCJpZGVudGl0eSI6eyJlbWFpbCI6InQzcXVsZmVlbUBrd2I2NS42dXliLCJuYW1lIjoiM2IveHJtZnF4IiwicGFzc3dvcmQiOiOm51bGx9LCJmcmVzaCI6ZmFsY2UsInR5cGUiOiJhY2Nlc3MiLCJ1c2VyX2NsYWltcyI6eyJ1c2Vylj7ImVtYWIsIjoidDNxdWxmZWVtQGt3aXY1LjZ1ciIsIm5hbWUiOiOilzaW94cm1mcXgiLCJwYXNzd29yZCI6bnVsYmI19fQ.ejtr_NyZyBronWMKuE0RFTjWej--T0zGrdc_ymGtVs
Comments	

### 2.1.2.3.3 sessions Indexes



PROPERTY	_ID_	USER_ID_1
Name	_id_	user_id_1
Activated		
Key	_id('ascending')	user_id('ascending')
Wildcard index		
Hashed		
Unique		true
Drop duplicates		
Sparse		
Background indexing		
Partial filter exp		
Expire after (seconds)		
Storage engine		
Comments		

2.1.2.3.4 sessions JSON Schema

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "sessions",
  "properties": {
    "_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "user_id": {
      "type": "string"
    },
    "jwt": {
      "type": "string"
    }
  },
  "additionalProperties": true,
  "required": [
    "_id",
    "user_id",
    "jwt"
  ]
}
```

2.1.2.3.5 sessions JSON data

### 2.1.2.3.6 sessions Target Script

```
use sample_mflix;

db.createCollection("sessions", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "sessions",
      "properties": {
        "_id": {
          "bsonType": "objectId"
        },
        "user_id": {
          "bsonType": "string"
        },
        "jwt": {
          "bsonType": "string"
        }
      },
      "additionalProperties": true,
      "required": [
        "_id",
        "user_id",
        "jwt"
      ]
    }
  },
  "validationLevel": "off",
  "validationAction": "warn"
});

db.sessions.createIndex({
  "_id": 1
},
{
  "name": "_id_"
});

db.sessions.createIndex({
  "user_id": 1
},
{
  "name": "user_id_1",
  "unique": true
});
```

#### 2.1.2.4 Collection theaters

##### 2.1.2.4.1 theaters Properties

PROPERTY	VALUE
Collection name	theaters
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	<a href="#">sample_mflix</a>
Capped	
Time series	
Size	
Max	
Storage engine	WiredTiger
Config String	
Validation level	Off
Validation action	Warn
Encryption metadata	
Additional properties	true
<b>Workload analysis</b>	
[1] Actor	
Description	
Number of documents	
Avg document size (Bytes)	
Read-to-Write ratio	
Keep forever	
Retention (months)	
Write operations	
Read operations	
Comments	

#### 2.1.2.4.2 theaters Fields

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
_id	objectId	true	pk		
theaterId	integer32	true			
location	document	true			
address	document	true			
street1	string	true			
city	string	true			
state	string	true			
zipcode	string	true			
street2	string,null	false			
geo	document	true			
type	string	true			
coordinates	array	true			
[0]	double	false			

##### 2.1.2.4.2.1 Field \_id

2.1.2.4.2.1.1 \_id Tree Diagram

<b>{_id}</b>	<b>_id</b>
(11.1)	objectId

2.1.2.4.2.1.2 \_id properties

PROPERTY	VALUE
Name	_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	objectId
Description	
Dependencies	
Required	true
Primary key	true
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Sample	
Comments	

2.1.2.4.2.2 Field theaterId

2.1.2.4.2.2.1 theaterId Tree Diagram

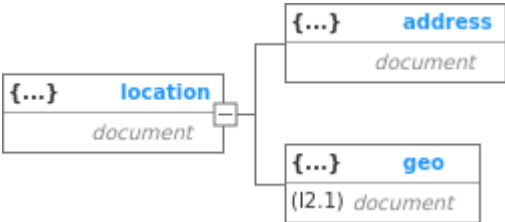
<b>{123}</b>	<b>theaterId</b>
	numeric

2.1.2.4.2.2 theaterId properties

PROPERTY	VALUE
Name	theaterId
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	8046
Comments	

2.1.2.4.2.3 Field location

2.1.2.4.2.3.1 location Tree Diagram



2.1.2.4.2.3.2 location Hierarchy

Parent field: **theaters**  
Child field(s):

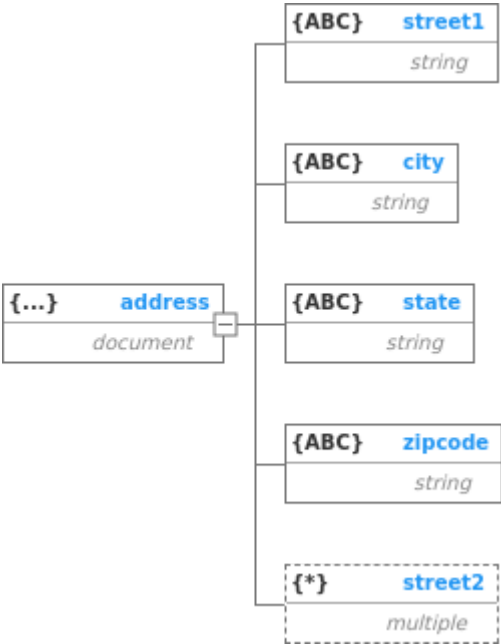
FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
address	document	true			
geo	document	true			

2.1.2.4.2.3.3 location properties

PROPERTY	VALUE
Name	location
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.4.2.4 Field address

2.1.2.4.2.4.1 address Tree Diagram



2.1.2.4.2.4.2 address Hierarchy

Parent field: **location**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
street1	string	true			
city	string	true			
state	string	true			
zipcode	string	true			
street2	string,null	false			



2.1.2.4.2.4.3 address properties

PROPERTY	VALUE
Name	address
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.4.2.5 Field street1

2.1.2.4.2.5.1 street1 Tree Diagram

{ABC}	street1
	string

2.1.2.4.2.5.2 street1 properties

PROPERTY	VALUE
Name	street1
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	345 Rockaway Tpke
Comments	

2.1.2.4.2.6 Field city

2.1.2.4.2.6.1 city Tree Diagram

{ABC} city
string

2.1.2.4.2.6.2 city properties

PROPERTY	VALUE
Name	city
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Lawrence
Comments	

2.1.2.4.2.7 Field state

2.1.2.4.2.7.1 state Tree Diagram

{ABC}	state
	string

2.1.2.4.2.7.2 state properties

PROPERTY	VALUE
Name	state
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	NY
Comments	

2.1.2.4.2.8 Field zipcode

2.1.2.4.2.8.1 zipcode Tree Diagram

{ABC}	zipcode
	string

2.1.2.4.2.8.2 zipcode properties

PROPERTY	VALUE
Name	zipcode
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	11559
Comments	

2.1.2.4.2.9 Field street2

2.1.2.4.2.9.1 street2 Tree Diagram



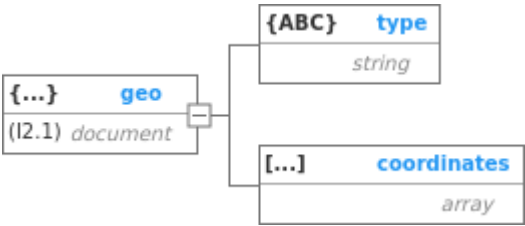
**2.1.2.4.2.9.2 street2 properties**

PROPERTY	VALUE
Name	street2
Technical name	
Activated	true
Id	
Field-level encryption	
Type	multiple (string,null)
Description	
Dependencies	
Required	false
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Comments	
Name	
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Dependencies	
Required	
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Comments	
Name	
Technical name	
Activated	true
Id	
Field-level encryption	
Type	null
Description	
Dependencies	
Required	
Primary key	false

PROPERTY	VALUE
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Comments	

2.1.2.4.2.10 Field geo

2.1.2.4.2.10.1 geo Tree Diagram



2.1.2.4.2.10.2 geo Hierarchy

Parent field: **location**  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
type	string	true			
coordinates	array	true			

2.1.2.4.2.10.3 geo properties

PROPERTY	VALUE
Name	geo
Technical name	
Activated	true
Id	
Field-level encryption	
Type	document
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
DBRef	
Min Properties	
Max Properties	
Additional properties	true
Comments	

2.1.2.4.2.11 Field type



2.1.2.4.2.11.1 type Tree Diagram



2.1.2.4.2.11.2 type properties

PROPERTY	VALUE
Name	type
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Point
Comments	

2.1.2.4.2.12 Field coordinates

2.1.2.4.2.12.1 coordinates Tree Diagram



2.1.2.4.2.12.2 coordinates Hierarchy

Parent field: geo  
Child field(s):

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	numeric	false			

2.1.2.4.2.12.3 coordinates properties

PROPERTY	VALUE
Name	coordinates
Technical name	
Activated	true
Id	
Field-level encryption	
Type	array
Description	
Dependencies	
Required	true
Primary key	false
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Min items	
Max items	
Unique items	
Additional items	true
Quantification	
Comments	

2.1.2.4.2.13 Field [0]

2.1.2.4.2.13.1 [0] Tree Diagram



**2.1.2.4.2.13.2 [0] properties**

PROPERTY	VALUE
Display name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	double
Description	
Dependencies	
Primary key	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Unit	
Min value	
Excl min	
Max value	
Excl max	
Multiple of	
Divisible by	
Enum	
Faker function	
Sample	-77.296356
Comments	

**2.1.2.4.3 theaters Indexes**

PROPERTY	_ID_	GEO INDEX
Name	_id_	geo index
Activated		
Key	_id('ascending')	geo('2DSphere')
Wildcard index		
Hashed		
Unique		
Drop duplicates		
Sparse		
Background indexing		
Partial filter exp		
Expire after (seconds)		
Storage engine		
Comments		

**2.1.2.4.4 theaters JSON Schema**

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "theaters",
  "properties": {
    "_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "theaterId": {
      "type": "integer"
    },
    "location": {
      "type": "object",
      "properties": {
        "address": {
          "type": "object",
          "properties": {
            "street1": {
              "type": "string"
            },
            "city": {
              "type": "string"
            },
            "state": {
              "type": "string"
            },
            "zipcode": {
              "type": "string"
            },
            "street2": {
              "type": [
                "string",
                "null"
              ]
            }
          }
        },
        "additionalProperties": true,
        "required": [
          "street1",
          "city",
          "state",
          "zipcode"
        ]
      },
    },
    "geo": {
      "type": "object",
      "properties": {
        "type": {
          "type": "string"
        },
        "coordinates": {
          "type": "array",
          "additionalItems": true,
          "items": {
            "type": "number"
          }
        }
      },
    },
    "additionalProperties": true,
  }
}
```

```

        "required": [
            "type",
            "coordinates"
        ]
    },
    "additionalProperties": true,
    "required": [
        "address",
        "geo"
    ]
}
},
"additionalProperties": true,
"required": [
    "_id",
    "theaterId",
    "location"
]
}

```

#### 2.1.2.4.5 theaters JSON data

```

{
  "_id": ObjectId("a0dcfe526add13b110fe1dfe"),
  "theaterId": Int32(8046),
  "location": {
    "address": {
      "street1": "345 Rockaway Tpke",
      "city": "Lawrence",
      "state": "NY",
      "zipcode": "11559",
      "street2": "Lorem"
    },
    "geo": {
      "type": "Point",
      "coordinates": [
        Double(-77.296356)
      ]
    }
  }
}

```

#### 2.1.2.4.6 theaters Target Script

```
use sample_mflix;

db.createCollection("theaters", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "theaters",
      "properties": {
        "_id": {
          "bsonType": "objectId"
        },
        "theaterId": {
          "bsonType": "int"
        },
        "location": {
          "bsonType": "object",
          "properties": {
            "address": {
              "bsonType": "object",
              "properties": {
                "street1": {
                  "bsonType": "string"
                },
                "city": {
                  "bsonType": "string"
                },
                "state": {
                  "bsonType": "string"
                },
                "zipcode": {
                  "bsonType": "string"
                },
                "street2": {
                  "bsonType": [
                    "string",
                    "null"
                  ]
                }
              }
            },
            "additionalProperties": true,
            "required": [
              "street1",
              "city",
              "state",
              "zipcode"
            ]
          },
        },
        "geo": {
          "bsonType": "object",
          "properties": {
            "type": {
              "bsonType": "string"
            },
            "coordinates": {
              "bsonType": "array",
              "additionalItems": true,
              "items": {
                "bsonType": "double"
              }
            }
          }
        }
      }
    }
  }
})
```

```

        }
      },
      "additionalProperties": true,
      "required": [
        "type",
        "coordinates"
      ]
    },
    {
      "additionalProperties": true,
      "required": [
        "address",
        "geo"
      ]
    }
  ],
  "additionalProperties": true,
  "required": [
    "_id",
    "theaterId",
    "location"
  ]
},
"validationLevel": "off",
"validationAction": "warn"
});

db.theaters.createIndex({
  "_id": 1
},
{
  "name": "_id_"
});

db.theaters.createIndex({
  "location.geo": "2dsphere"
},
{
  "name": "geo index",
  "2dsphereIndexVersion": 3
});

```

### 2.1.2.5 Collection users

#### 2.1.2.5.1 users Properties

PROPERTY	VALUE
Collection name	users
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	WiredTiger
Config String	
Validation level	Off
Validation action	Warn
Encryption metadata	
Additional properties	true
<b>Workload analysis</b>	
[1] Actor	
Description	
Number of documents	
Avg document size (Bytes)	
Read-to-Write ratio	
Keep forever	
Retention (months)	
Write operations	
Read operations	
Comments	

2.1.2.5.2 users Fields

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
_id	objectId	true	pk		
name	string	true			
email	string	true			
password	string	true			

2.1.2.5.2.1 Field \_id

2.1.2.5.2.1.1 \_id Tree Diagram

{_id}	_id
(11.1)	objectId



2.1.2.5.2.1.2 \_id properties

PROPERTY	VALUE
Name	_id
Technical name	
Activated	true
Id	
Field-level encryption	
Type	objectId
Description	
Dependencies	
Required	true
Primary key	true
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Default	
Sample	
Comments	

2.1.2.5.2.2 Field name

2.1.2.5.2.2.1 name Tree Diagram

{ABC}    name
string

2.1.2.5.2.2 name properties

PROPERTY	VALUE
Name	name
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	Christian Williams
Comments	

2.1.2.5.2.3 Field email

2.1.2.5.2.3.1 email Tree Diagram

{ABC}	email
(12.1)	string

2.1.2.5.2.3.2 email properties

PROPERTY	VALUE
Name	email
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	christian_williams@fakegmail.com
Comments	

2.1.2.5.2.4 Field password

2.1.2.5.2.4.1 password Tree Diagram

{ABC} password
string

**2.1.2.5.2.4.2 password properties**

PROPERTY	VALUE
Name	password
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	true
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	\$2b\$12\$D2/B/KGdHRduXiT0/OX5Yu0YMfubTWO0aCjuOyQrDUMvq2Eju10ny
Comments	

**2.1.2.5.3 users Indexes**

PROPERTY	_ID_	EMAIL_1
Name	_id_	email_1
Activated		
Key	_id('ascending')	email('ascending')
Wildcard index		
Hashed		
Unique		true
Drop duplicates		
Sparse		
Background indexing		
Partial filter exp		
Expire after (seconds)		
Storage engine		
Comments		

**2.1.2.5.4 users JSON Schema**

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "users",
  "properties": {
    "_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "name": {
      "type": "string"
    },
    "email": {
      "type": "string"
    },
    "password": {
      "type": "string"
    }
  },
  "additionalProperties": true,
  "required": [
    "_id",
    "name",
    "email",
    "password"
  ]
}
```

#### 2.1.2.5.5 users JSON data

```
{
  "_id": ObjectId("7e77ee2bd1844dbfb0ed48a9"),
  "name": "Christian Williams",
  "email": "christian_williams@fakegmail.com",
  "password": "$2b$12$D2/B/KGdHRduXiT0/OX5Yu0YMfubTWOOaCjuOyQrDUMvq2Eju10ny"
}
```

#### 2.1.2.5.6 users Target Script

```
use sample_mflix;

db.createCollection("users", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "users",
      "properties": {
        "_id": {
          "bsonType": "objectId"
        },
        "name": {
          "bsonType": "string"
        },
        "email": {
          "bsonType": "string"
        },
        "password": {
          "bsonType": "string"
        }
      },
      "additionalProperties": true,
      "required": [
        "_id",
        "name",
        "email",
        "password"
      ]
    }
  },
  "validationLevel": "off",
  "validationAction": "warn"
});

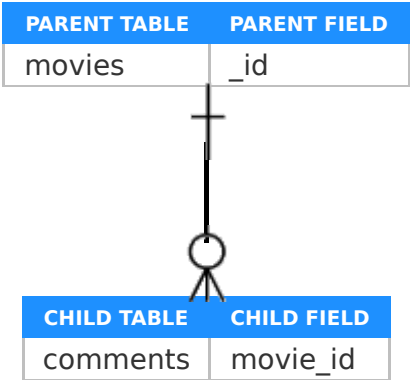
db.users.createIndex({
  "_id": 1
},
{
  "name": "_id_"
});

db.users.createIndex({
  "email": 1
},
{
  "name": "email_1",
  "unique": true
});
```

### 3. RELATIONSHIPS

#### 3.1 Relationship fk movies.\_id to comments.movie\_id

3.1.1 fk movies.\_id to comments.movie\_id Diagram



3.1.2 fk movies.\_id to comments.movie\_id Properties

PROPERTY	VALUE
Name	fk movies._id to comments.movie_id
Description	
Parent Collection	movies
Parent field	_id
Parent Cardinality	1
Child Collection	comments
Child field	movie_id
Child Cardinality	0..n
Comments	