



MongoDB Physical Model

Schema for:

Model name: MongoDB_model

Author:

Version:

File name: MongoDB_model.hck.json

File path: /Users/rvanbruggen/Documents/HackoladeRepo/1-Customers/Dotdash/MongoDB_model.hck.json

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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 MongoDB_model

1.1.1 MongoDB_model Entity Relationship Diagram

1.1.2 MongoDB_model Properties

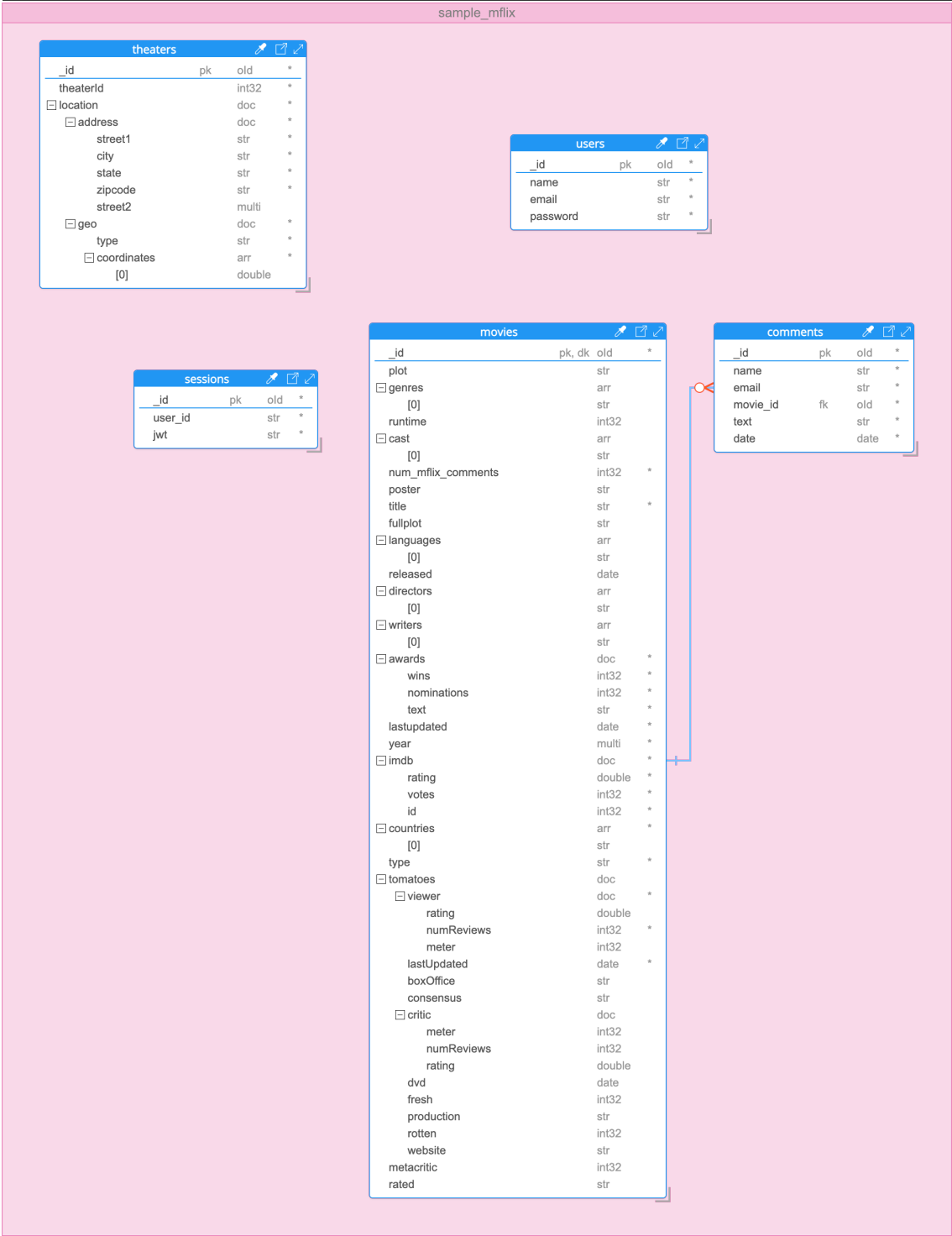
1.1.2.1 Details tab

PROPERTY	VALUE
Model name	MongoDB_model
Technical name	
Description	
Author	
Version	
Target	MongoDB
DB version	v6.0
Synchronization Id	
Lineage capture	
Polyglot models	
[1] Name	MongoDB MFLIX as Polyglot.hck
Model	MongoDB MFLIX as Polyglot.hck.json
Comments	

1.1.3 MongoDB_model 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

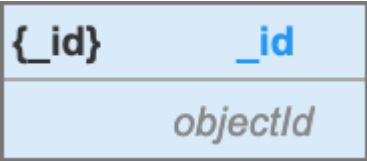
PROPERTY	VALUE
Collection name	comments
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	
Validation level	
Validation action	
Encryption metadata	
Additional properties	true
Workload analysis	
[1] Actor	
Description	
Number of 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



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



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	Meryn Trant
Comments	

2.1.2.1.2.3 Field email

2.1.2.1.2.3.1 email Tree Diagram

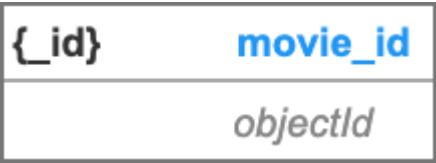


2.1.2.1.2.3.2 email properties

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	ian_beattie@gameofthron.es
Comments	

2.1.2.1.2.4 Field movie_id

2.1.2.1.2.4.1 movie_id Tree Diagram



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



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	Aspernatur fugit delectus corrupti deserunt tempore est. Laudantium ullam voluptatibus quidem rerum sint omnis error. Neque harum vero beatae quia est necessitatibus voluptates.
Comments	

2.1.2.1.2.6 Field date

2.1.2.1.2.6.1 date Tree Diagram

{dt}	date
	<i>date</i>

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 JSON Schema

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

2.1.2.1.4 comments JSON data

```
{
  "_id": ObjectId("debdcb907f608d2af1f6012c"),
  "name": "Meryn Trant",
  "email": "ian_beattie@gameofthron.es",
  "movie_id": ObjectId("e46cd206fa03ab5b3cc96ed0"),
  "text": "Aspernatur fugit delectus corrupti deserunt tempore est. Laudantium ullam voluptatibus quidem rerum sint omnis error. Neque harum vero beatae quia est necessitatibus voluptates.",
  "date": ISODate("2016-04-08T15:06:21.595Z")
}
```

2.1.2.1.5 comments Target Script

```
use sample_mflix;

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

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	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	
Validation level	
Validation action	
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	

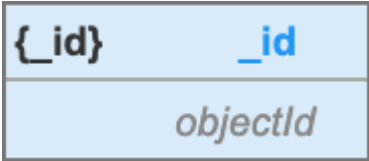
2.1.2.2.2 movies Fields

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

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
metacritic	integer32	false			
rated	string	false			

2.1.2.2.2.1 Field _id

2.1.2.2.2.1.1 _id Tree Diagram



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



2.1.2.2.2.2 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	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	What's the bond between partners, between brothers, and between spouses? In L.A., Bill Holt handcuffs Sean Rickhart inside a rebar frame for a freeway pillar at a construction site; Bill's ...
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	false
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	Short
Comments	

2.1.2.2.2.5 Field runtime

2.1.2.2.2.5.1 runtime Tree Diagram

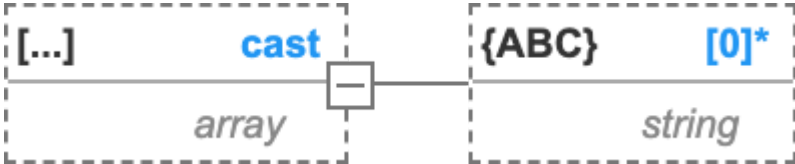


2.1.2.2.5.2 runtime properties

PROPERTY	VALUE
Name	runtime
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	integer32
Description	
Dependencies	
Required	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	1140
Comments	

2.1.2.2.6 Field cast

2.1.2.2.6.1 cast Tree Diagram



2.1.2.2.6.2 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	false
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	Charles Kayser
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
	<i>numeric</i>

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	153
Comments	

2.1.2.2.2.9 Field poster

2.1.2.2.2.9.1 poster Tree Diagram



2.1.2.2.9.2 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/MV5BMTg1MzQ0MjQ5M15BMl5BanBnXkFtZTcwNDQzNTc0MQ@@._V1_SY1000_SX677_AL_.jpg
Comments	

2.1.2.2.10 Field title

2.1.2.2.10.1 title Tree Diagram



2.1.2.2.2.10.2 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	Cement
Comments	

2.1.2.2.2.11 Field fullplot

2.1.2.2.2.11.1 fullplot Tree Diagram

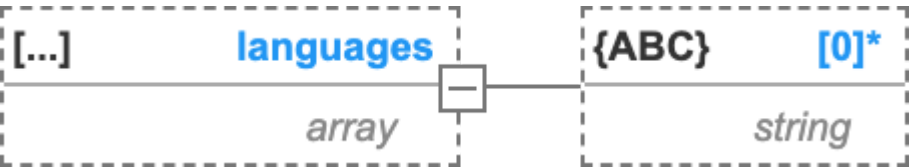


2.1.2.2.2.11.2 fullplot properties

PROPERTY	VALUE
Name	fullplot
Technical name	
Activated	true
Id	
Field-level encryption	
Type	string
Description	
Format	
Pattern	
Min length	
Max length	
Default	
Enum	
Required	false
Primary key	false
Dependencies	
Foreign collection	
Foreign field	
Relationship type	
Relationship name	
Cardinality	
Faker function	
Sample	What's the bond between partners, between brothers, and between spouses? In L.A., Bill Holt handcuffs Sean Rickhart inside a rebar frame for a freeway pillar at a construction site; Bill's going to bury Sean in quick-drying cement. Guided by the narration of Nin, Bill's coke-snorting partner, we go back and forth over the past 48 hours to find out what brings Bill and Sean to this deadly scene. Missing money, cops on the take, Sean's two brothers (one the leader of the mob, the other a camera-carrying simpleton), Bill's wife, dead young police officers, infidelity, and Bill and Nin's partnership make a mix as volatile and unstable as the cement is solid and immobile.
Comments	

2.1.2.2.2.12 Field languages

2.1.2.2.2.12.1 languages Tree Diagram



2.1.2.2.2.12.2 languages Hierarchy

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

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.12.3 languages properties

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

2.1.2.2.2.13 Field [0]

2.1.2.2.2.13.1 [0] Tree Diagram



2.1.2.2.2.13.2 [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	

2.1.2.2.2.14 Field released

2.1.2.2.2.14.1 released Tree Diagram

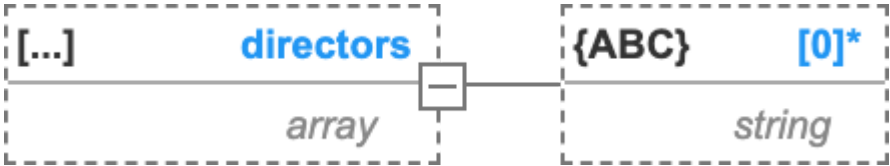


2.1.2.2.2.14.2 released properties

PROPERTY	VALUE
Name	released
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	

2.1.2.2.2.15 Field directors

2.1.2.2.2.15.1 directors Tree Diagram



2.1.2.2.2.15.2 directors Hierarchy

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

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.15.3 directors properties

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

2.1.2.2.2.16 Field [0]

2.1.2.2.2.16.1 [0] Tree Diagram



2.1.2.2.2.16.2 [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	William K.L. Dickson
Comments	

2.1.2.2.2.17 Field writers

2.1.2.2.2.17.1 writers Tree Diagram



2.1.2.2.2.17.2 writers Hierarchy

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

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.17.3 writers properties

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

2.1.2.2.2.18 Field [0]

2.1.2.2.18.1 [0] Tree Diagram

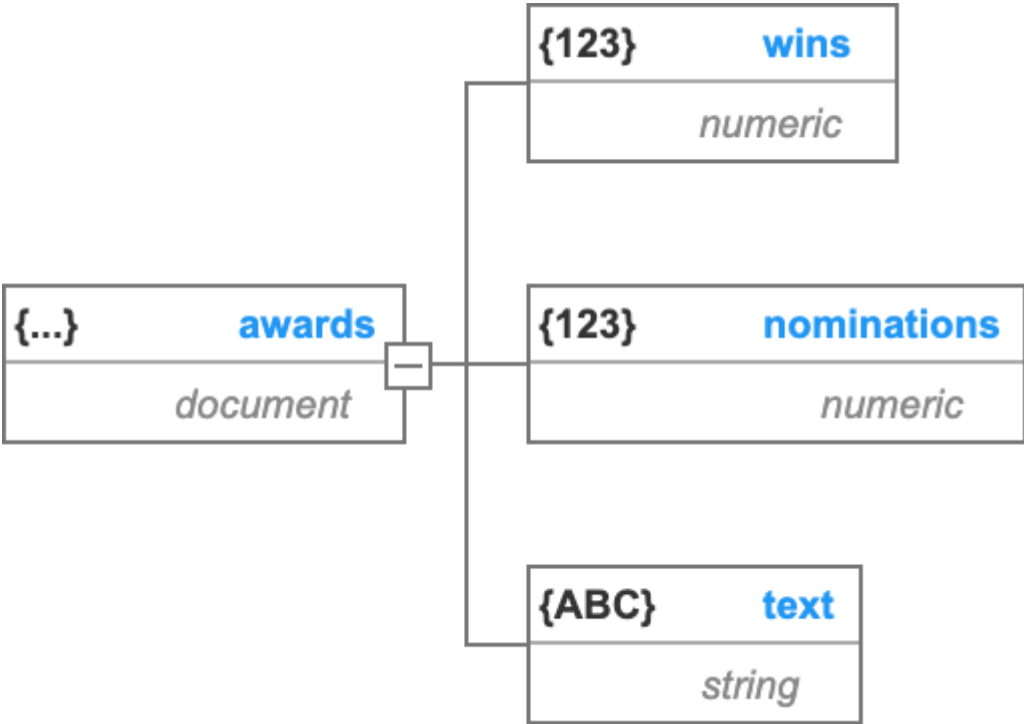


2.1.2.2.2.18.2 [0] properties

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	Dorothy G. Shore
Comments	

2.1.2.2.2.19 Field awards

2.1.2.2.2.19.1 awards Tree Diagram



2.1.2.2.2.19.2 awards Hierarchy

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

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

2.1.2.2.2.19.3 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	

2.1.2.2.2.20 Field wins

2.1.2.2.2.20.1 wins Tree Diagram

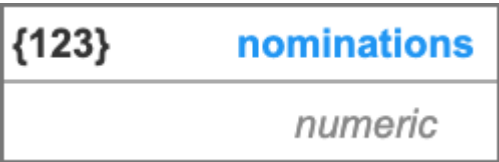


2.1.2.2.20.2 wins properties

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	115
Comments	

2.1.2.2.21 Field nominations

2.1.2.2.21.1 nominations Tree Diagram



2.1.2.2.21.2 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	112
Comments	

2.1.2.2.22 Field text

2.1.2.2.22.1 text Tree Diagram



2.1.2.2.22.2 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	3 wins.
Comments	

2.1.2.2.23 Field lastupdated

2.1.2.2.23.1 lastupdated Tree Diagram

{dt}	lastupdated
	<i>date</i>

2.1.2.2.23.2 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("2015-08-24 00:11:51.010000000")
Comments	

2.1.2.2.24 Field year

2.1.2.2.24.1 year Tree Diagram



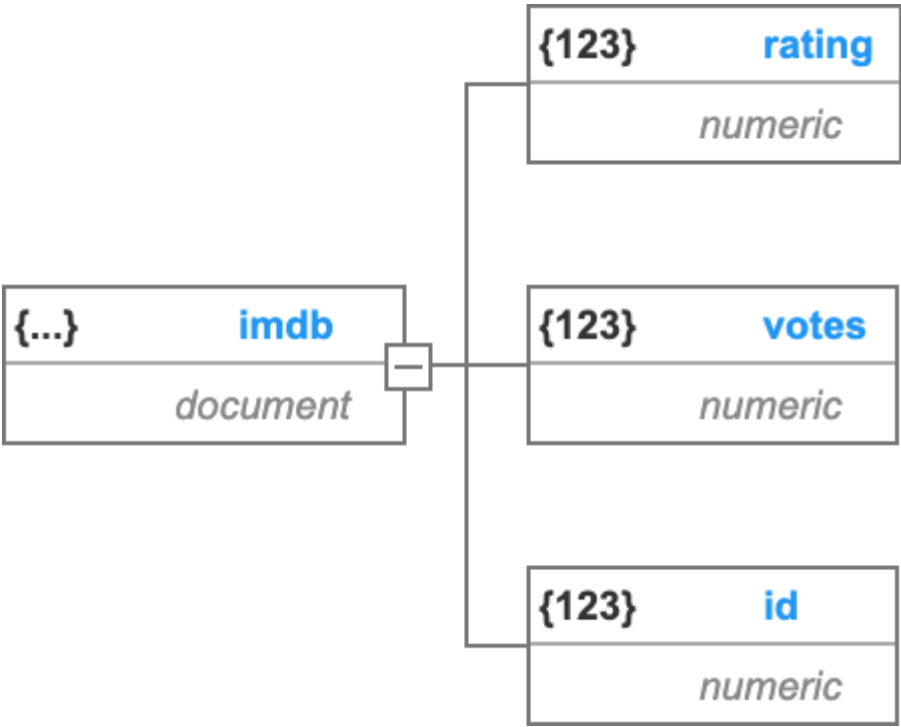
2.1.2.2.2.24.2 year properties

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

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

2.1.2.2.2.25 Field imdb

2.1.2.2.2.25.1 imdb Tree Diagram



2.1.2.2.2.25.2 imdb Hierarchy

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

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

2.1.2.2.25.3 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	

2.1.2.2.26 Field rating

2.1.2.2.26.1 rating Tree Diagram



2.1.2.2.26.2 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	6.2
Comments	

2.1.2.2.27 Field votes

2.1.2.2.27.1 votes Tree Diagram



2.1.2.2.27.2 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	1038358
Comments	

2.1.2.2.28 Field id

2.1.2.2.28.1 id Tree Diagram

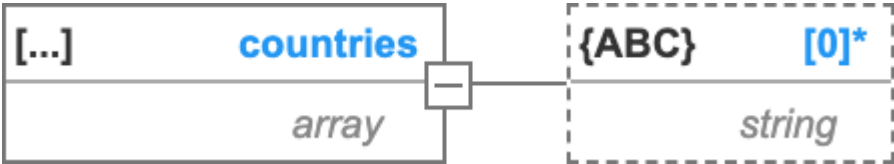


2.1.2.2.28.2 id properties

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	218127
Comments	

2.1.2.2.29 Field countries

2.1.2.2.29.1 countries Tree Diagram



2.1.2.2.29.2 countries Hierarchy

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

FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
[0]	string	false			

2.1.2.2.2.29.3 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	

2.1.2.2.2.30 Field [0]

2.1.2.2.2.30.1 [0] Tree Diagram



2.1.2.2.2.30.2 [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	

2.1.2.2.2.31 Field type

2.1.2.2.2.31.1 type Tree Diagram

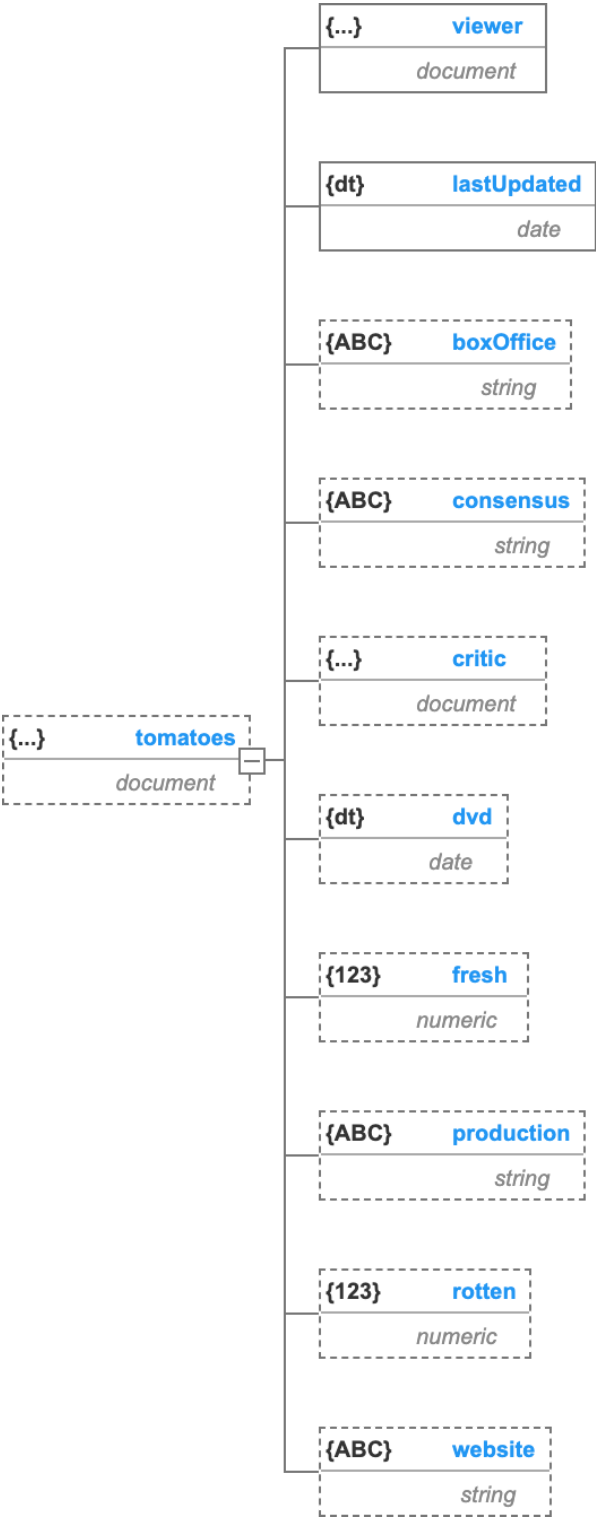


2.1.2.2.2.31.2 type properties

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	

2.1.2.2.2.32 Field tomatoes

2.1.2.2.2.32.1 tomatoes Tree Diagram



2.1.2.2.2.32.2 tomatoes Hierarchy

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

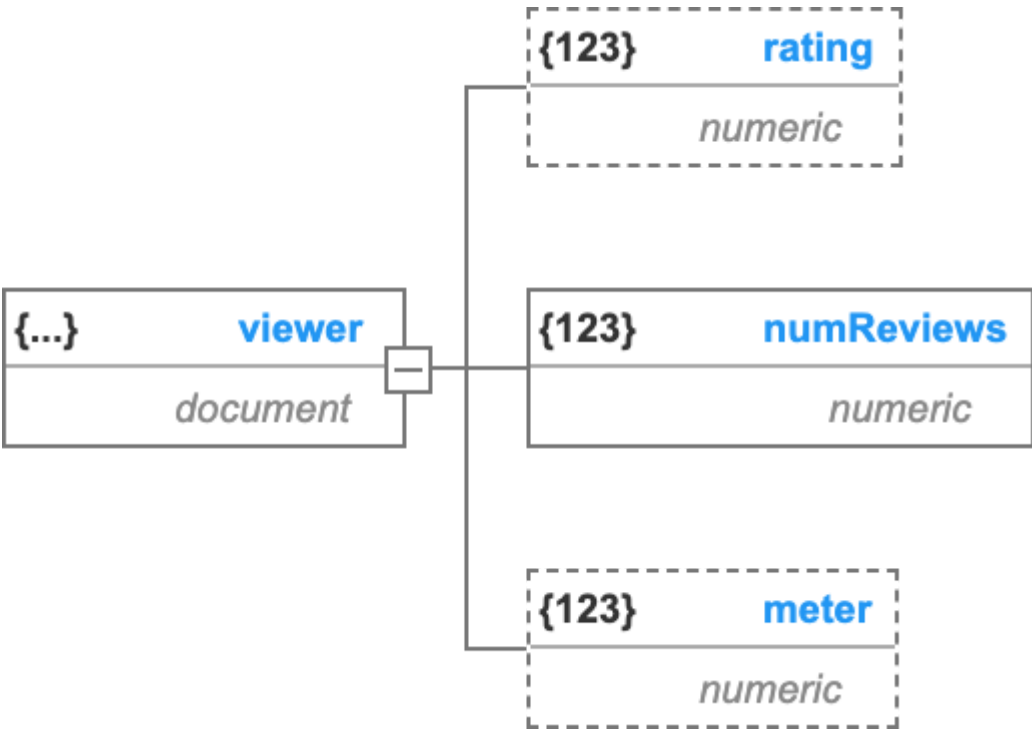
FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
viewer	document	true			
lastUpdated	date	true			
boxOffice	string	false			
consensus	string	false			
critic	document	false			
dvd	date	false			
fresh	numeric	false			
production	string	false			
rotten	numeric	false			
website	string	false			

2.1.2.2.2.32.3 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	

2.1.2.2.2.33 Field viewer

2.1.2.2.2.33.1 viewer Tree Diagram



2.1.2.2.2.33.2 viewer Hierarchy

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

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

2.1.2.2.2.33.3 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	

2.1.2.2.2.34 Field rating

2.1.2.2.2.34.1 rating Tree Diagram

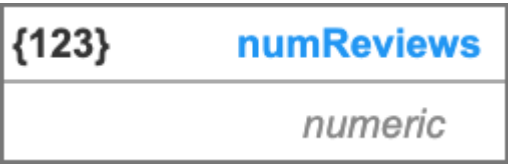


2.1.2.2.2.34.2 rating properties

PROPERTY	VALUE
Name	rating
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	double
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	3.7
Comments	

2.1.2.2.2.35 Field numReviews

2.1.2.2.2.35.1 numReviews Tree Diagram



2.1.2.2.2.35.2 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	33400830
Comments	

2.1.2.2.2.36 Field meter

2.1.2.2.2.36.1 meter Tree Diagram



2.1.2.2.2.36.2 meter properties

PROPERTY	VALUE
Name	meter
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	100
Comments	

2.1.2.2.2.37 Field lastUpdated

2.1.2.2.2.37.1 lastUpdated Tree Diagram

{dt}	lastUpdated
	<i>date</i>

2.1.2.2.2.37.2 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	

2.1.2.2.2.38 Field boxOffice

2.1.2.2.38.1 boxOffice Tree Diagram



2.1.2.2.2.38.2 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	\$21.5k
Comments	

2.1.2.2.2.39 Field consensus

2.1.2.2.2.39.1 consensus Tree Diagram

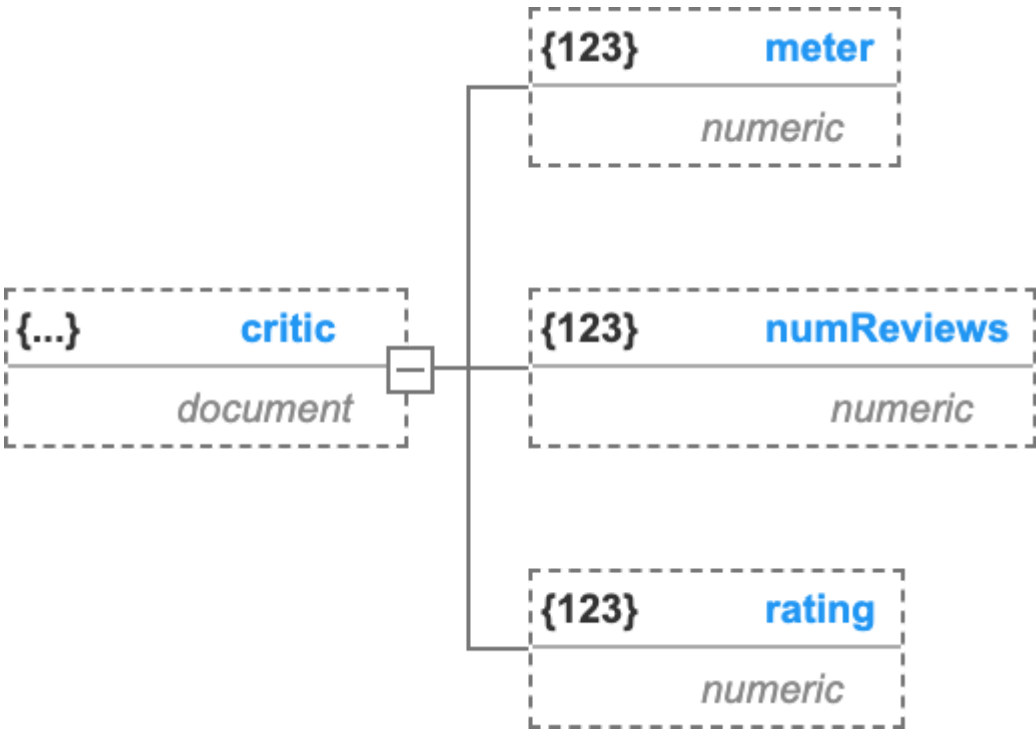


2.1.2.2.2.39.2 consensus properties

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	Baseball wins, romance loses.
Comments	

2.1.2.2.2.40 Field critic

2.1.2.2.2.40.1 critic Tree Diagram



2.1.2.2.2.40.2 critic Hierarchy

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

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

2.1.2.2.2.40.3 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	

2.1.2.2.2.41 Field meter

2.1.2.2.2.41.1 meter Tree Diagram



2.1.2.2.2.41.2 meter properties

PROPERTY	VALUE
Name	meter
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	100
Comments	

2.1.2.2.2.42 Field numReviews

2.1.2.2.2.42.1 numReviews Tree Diagram



2.1.2.2.2.42.2 numReviews properties

PROPERTY	VALUE
Name	numReviews
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	192
Comments	

2.1.2.2.2.43 Field rating

2.1.2.2.2.43.1 rating Tree Diagram



2.1.2.2.43.2 rating properties

PROPERTY	VALUE
Name	rating
Technical name	
Activated	true
Id	
Field-level encryption	
Type	numeric
Subtype	double
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	8.1
Comments	

2.1.2.2.2.44 Field dvd

2.1.2.2.2.44.1 dvd Tree Diagram



2.1.2.2.2.44.2 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	

2.1.2.2.2.45 Field fresh

2.1.2.2.2.45.1 fresh Tree Diagram



2.1.2.2.2.45.2 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	165
Comments	

2.1.2.2.2.46 Field production

2.1.2.2.2.46.1 production Tree Diagram



2.1.2.2.2.46.2 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	LionsGate Entertainment
Comments	

2.1.2.2.2.47 Field rotten

2.1.2.2.2.47.1 rotten Tree Diagram



2.1.2.2.2.47.2 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	126
Comments	

2.1.2.2.2.48 Field website

2.1.2.2.2.48.1 website Tree Diagram



2.1.2.2.2.48.2 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.universalpictures.com/forloveofthegame
Comments	

2.1.2.2.2.49 Field metacritic

2.1.2.2.2.49.1 metacritic Tree Diagram



2.1.2.2.2.49.2 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	100
Comments	

2.1.2.2.2.50 Field rated

2.1.2.2.2.50.1 rated Tree Diagram



2.1.2.2.2.50.2 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	R
Comments	

2.1.2.2.3 movies JSON Schema

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "title": "movies",
  "additionalProperties": true,
  "properties": {
    "_id": {
      "type": "string",
      "pattern": "^[a-zA-F0-9]{24}$"
    },
    "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"
    },
    "poster": {
      "type": "string"
    },
    "title": {
      "type": "string"
    },
    "fullplot": {
      "type": "string"
    },
    "languages": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
    "released": {
      "type": "string",
      "format": "date-time"
    },
    "directors": {
      "type": "array",
      "additionalItems": true,
      "items": {
        "type": "string"
      }
    },
  },
}
```



```
"writers": {
  "type": "array",
  "additionalItems": true,
  "items": {
    "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": [
    "number",
    "string"
  ]
},
"imdb": {
  "type": "object",
  "properties": {
    "rating": {
      "type": "number"
    },
    "votes": {
      "type": "integer"
    },
    "id": {
      "type": "integer"
    }
  },
  "additionalProperties": true,
  "required": [
    "rating",
    "votes",
    "id"
  ]
},
"countries": {
  "type": "array",
  "additionalItems": true,
  "items": {
```

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

```
    },
    "rotten": {
      "type": "integer"
    },
    "website": {
      "type": "string"
    }
  },
  "additionalProperties": true,
  "required": [
    "viewer",
    "lastUpdated"
  ]
},
"metacritic": {
  "type": "integer"
},
"rated": {
  "type": "string"
}
},
"required": [
  "_id",
  "num_mflix_comments",
  "title",
  "awards",
  "lastupdated",
  "year",
  "imdb",
  "countries",
  "type"
]
}
```

2.1.2.2.4 movies JSON data

```

{
  "_id": ObjectId("3d73cac5f0efa115d17f2feb"),
  "plot": "What's the bond between partners, between brothers, and between spouses? In L.A., Bill Holt handcuffs Sean Rickhart inside a rebar frame for a freeway pillar at a construction site; Bill's ...",
  "genres": [
    "Short"
  ],
  "runtime": Int32(1140),
  "cast": [
    "Charles Kayser"
  ],
  "num_mflix_comments": Int32(153),
  "poster": "https://m.media-amazon.com/images/M/MV5BMTg1MzQ0MjQ5M15BMl5BanBnXkFtZTcwNDQzNTc0MQ@@._V1_SY1000_SX677_AL_.jpg",
  "title": "Cement",
  "fullplot": "What's the bond between partners, between brothers, and between spouses? In L.A., Bill Holt handcuffs Sean Rickhart inside a rebar frame for a freeway pillar at a construction site; Bill's going to bury Sean in quick-drying cement. Guided by the narration of Nin, Bill's coke-snorting partner, we go back and forth over the past 48 hours to find out what brings Bill and Sean to this deadly scene. Missing money, cops on the take, Sean's two brothers (one the leader of the mob, the other a camera-carrying simpleton), Bill's wife, dead young police officers, infidelity, and Bill and Nin's partnership make a mix as volatile and unstable as the cement is solid and immobile.",
  "languages": [
    "English"
  ],
  "released": ISODate("2016-04-08T15:06:21.595Z"),
  "directors": [
    "William K.L. Dickson"
  ],
  "writers": [
    "Dorothy G. Shore"
  ],
  "awards": {
    "wins": Int32(115),
    "nominations": Int32(112),
    "text": "3 wins."
  },
  "lastupdated": ISODate("2015-08-24 00:11:51.010000000"),
  "year": 59,
  "imdb": {
    "rating": Double(6.2),
    "votes": Int32(1038358),
    "id": Int32(218127)
  },
  "countries": [
    "USA"
  ],
  "type": "movie",
  "tomatoes": {
    "viewer": {
      "rating": Double(3.7),
      "numReviews": Int32(33400830),
      "meter": Int32(100)
    }
  },
  "lastUpdated": ISODate("2016-04-08T15:06:21.595Z"),
  "boxOffice": "$21.5k",
  "consensus": "Baseball wins, romance loses.",
  "critic": {
    "meter": Int32(100),
    "numReviews": Int32(192),
    "rating": Double(8.1)
  }
}

```

```
{,
  "dvd": ISODate("2016-04-08T15:06:21.595Z"),
  "fresh": Int32(165),
  "production": "LionsGate Entertainment",
  "rotten": Int32(126),
  "website": "http://www.universalpictures.com/forloveofthegame"
},
"metacritic": Int32(100),
"rated": "R"
}
```

2.1.2.2.5 movies Target Script

```
use sample_mflix;

db.createCollection("movies", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "movies",
      "additionalProperties": true,
      "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"
        },
        "poster": {
          "bsonType": "string"
        },
        "title": {
          "bsonType": "string"
        },
        "fullplot": {
          "bsonType": "string"
        },
        "languages": {
          "bsonType": "array",
          "additionalItems": true,
          "items": {
            "bsonType": "string"
          }
        },
        "released": {
          "bsonType": "date"
        },
        "directors": {
          "bsonType": "array",
          "additionalItems": true,
          "items": {
            "bsonType": "string"
          }
        }
      }
    }
  }
})
```

```
    }
  },
  "writers": {
    "bsonType": "array",
    "additionalItems": true,
    "items": {
      "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": [
    "number",
    "string"
  ]
},
"imdb": {
  "bsonType": "object",
  "properties": {
    "rating": {
      "bsonType": "double"
    },
    "votes": {
      "bsonType": "int"
    },
    "id": {
      "bsonType": "int"
    }
  },
  "additionalProperties": true,
  "required": [
    "rating",
    "votes",
    "id"
  ]
},
"countries": {
  "bsonType": "array",
  "additionalItems": true,
```

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



```
        "rotten": {
          "bsonType": "int"
        },
        "website": {
          "bsonType": "string"
        }
      },
      "additionalProperties": true,
      "required": [
        "viewer",
        "lastUpdated"
      ]
    },
    "metacritic": {
      "bsonType": "int"
    },
    "rated": {
      "bsonType": "string"
    }
  },
  "required": [
    "_id",
    "num_mflix_comments",
    "title",
    "awards",
    "lastupdated",
    "year",
    "imdb",
    "countries",
    "type"
  ]
}
},
"validationLevel": "off",
"validationAction": "warn"
});
```

2.1.2.3 Collection sessions

2.1.2.3.1 sessions Properties

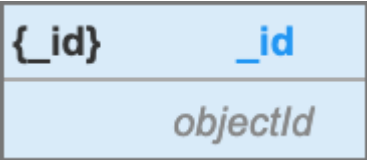
PROPERTY	VALUE
Collection name	sessions
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	
Validation level	
Validation action	
Encryption metadata	
Additional properties	true
Workload analysis	
[1] Actor	
Description	
Number of 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



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
	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




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

2.1.2.3.4 sessions JSON data

```
{
  "_id": ObjectId("0dfb0bada3931b5a85c2fe0b"),
  "user_id": "t3qulfeem@kwiv5.6ur",
  "jwt":
"eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpYXQiOiE1MTk5MDkzMjEsIm5iZiI6MTUxOTkwOTMyMSwianRpIjoiNmJlZDAwMWYtNTFiYi00NzVhLTgxZDAwMDcwNGE5Mjk0MWZlIiwiaXNjaXNTE5OTEwMjlxLCJpZGVudGI0eSI6eyJlbWVpbCI6InQzcXVsZmVlbUBrd2I2NS42dXliLCJuYW1lIjoiM2lveHJtZnF4IiwicGFzc3dvcmQiOiOm51bGx9LCJmcmVzaCI6ZmFsc2UsInR5cGUiOiJhY2Nlc3MiLCJ1c2VyX2NsYWltcyI6eyJ1c2Vyljpw7ImVtYWVlsljoidDNxdWxmZWVtQGt3aXY1LjZ1cilsIm5hbWUiOiIzaW94cm1mcXgiLCJwYXNzd29yZCI6bnVsbH19fQ.ejtr_NyZyBronWMKuE0RFTjWej--T0zGrdc_ymGtVs"
}
```

2.1.2.3.5 sessions Target Script

```
use sample_mflix;

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

2.1.2.4 Collection theaters

2.1.2.4.1 theaters Properties

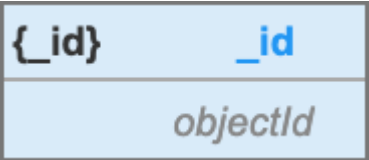
PROPERTY	VALUE
Collection name	theaters
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	
Validation level	
Validation action	
Encryption metadata	
Additional properties	true
Workload analysis	
[1] Actor	
Description	
Number of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

2.1.2.4.2 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

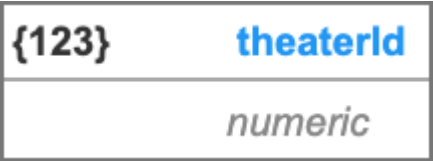


2.1.2.4.2.1.2 _id properties

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

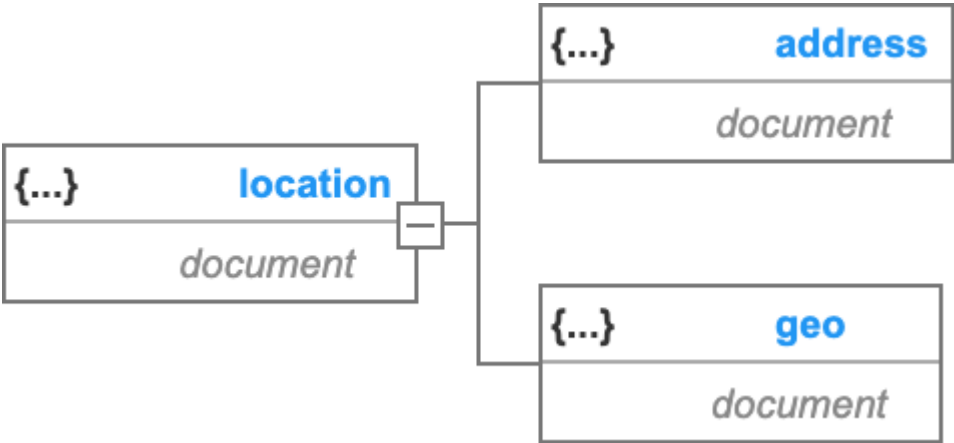


2.1.2.4.2.2.2 theaterId properties

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	8809
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):

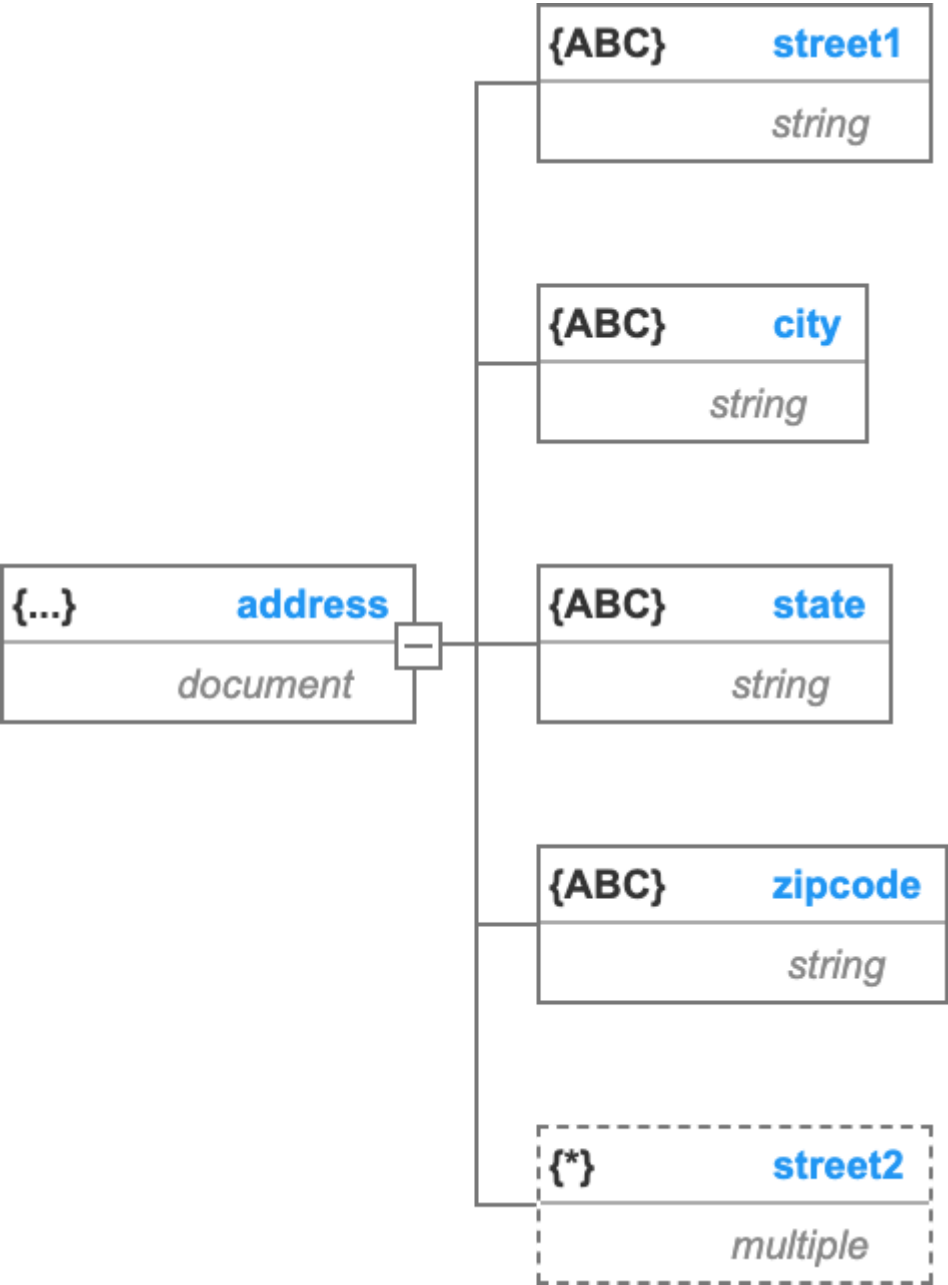
FIELD	TYPE	REQ	KEY	DESCRIPTION	COMMENTS
address	document	true			
geo	document	true			

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



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	30830 Orchard Lake Rd
Comments	

2.1.2.4.2.6 Field city

2.1.2.4.2.6.1 city Tree Diagram



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	Farmington Hills
Comments	

2.1.2.4.2.7 Field state

2.1.2.4.2.7.1 state Tree Diagram

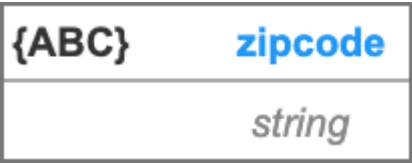


2.1.2.4.2.7.2 state properties

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	MI
Comments	

2.1.2.4.2.8 Field zipcode

2.1.2.4.2.8.1 zipcode Tree Diagram



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	48334
Comments	

2.1.2.4.2.9 Field street2

2.1.2.4.2.9.1 street2 Tree Diagram



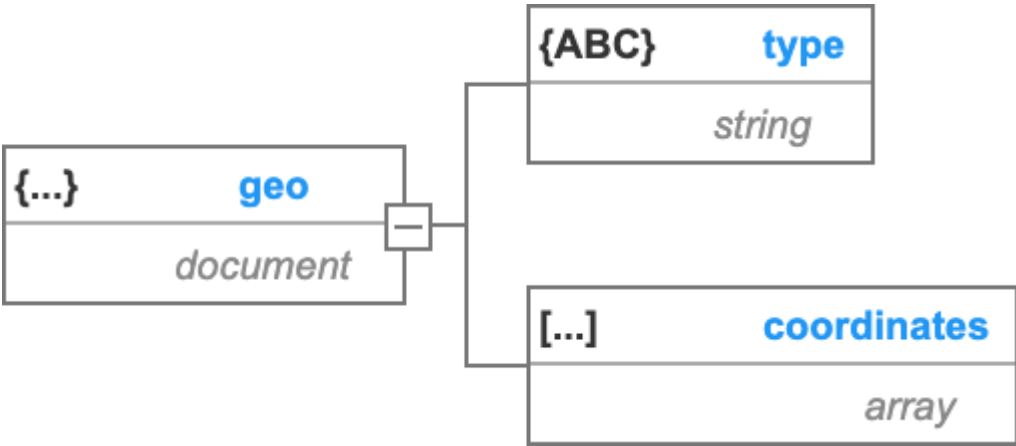
2.1.2.4.2.9.2 street2 properties

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	-100.81213
Comments	

2.1.2.4.3 theaters JSON Schema


```

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

```

2.1.2.4.4 theaters JSON data

```

{
  "_id": ObjectId("346e5a739c0e899cd05dffc4"),
  "theaterId": Int32(8809),
  "location": {
    "address": {
      "street1": "30830 Orchard Lake Rd",
      "city": "Farmington Hills",
      "state": "MI",
      "zipcode": "48334",
      "street2": "Lorem"
    },
    "geo": {
      "type": "Point",
      "coordinates": [
        Double(-100.81213)
      ]
    }
  }
}

```

2.1.2.4.5 theaters Target Script

```
use sample_mflix;

db.createCollection("theaters", {
  "capped": false,
  "validator": {
    "$jsonSchema": {
      "bsonType": "object",
      "title": "theaters",
      "additionalProperties": true,
      "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"
  ]
},
"required": [
  "_id",
  "theaterId",
  "location"
]
}
},
"validationLevel": "off",
"validationAction": "warn"
});
```

2.1.2.5 Collection users

2.1.2.5.1 users Properties

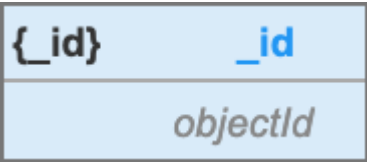
PROPERTY	VALUE
Collection name	users
Technical name	
Activated	true
Id	
\$ref	
Description	
Database	sample_mflix
Capped	
Time series	
Size	
Max	
Storage engine	
Validation level	
Validation action	
Encryption metadata	
Additional properties	true
Workload analysis	
[1] Actor	
Description	
Number of documents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

2.1.2.5.2 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



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



2.1.2.5.2.2.2 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	Blake Fitzgerald
Comments	

2.1.2.5.2.3 Field email

2.1.2.5.2.3.1 email Tree Diagram



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	blake_fitzgerald@fakegmail.com
Comments	

2.1.2.5.2.4 Field password

2.1.2.5.2.4.1 password Tree Diagram



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\$.ilQEC/iyR4FhnMA1PmzVe.kMkAbI7htSZJKquTjnaVFH.RDmsP32
Comments	

2.1.2.5.3 users JSON Schema

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

2.1.2.5.4 users JSON data

```
{
  "_id": ObjectId("dede0a26aece3cb28b3fe6ab"),
  "name": "Blake Fitzgerald",
  "email": "blake_fitzgerald@fakegmail.com",
  "password": "$2b$12$.ilQEC/iyR4FhnMA1PmzVe.kMkAbI7htSZJKquTjnaVFH.RDmsP32"
}
```

2.1.2.5.5 users Target Script

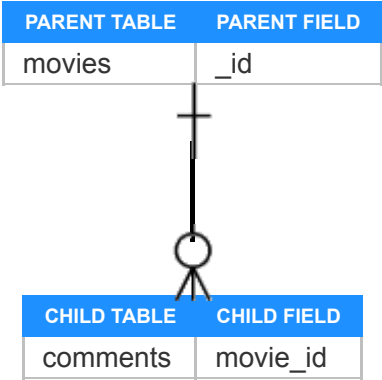
```
use sample_mflix;

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

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	