

Ejercicios Sesión 7

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Continuaremos trabajando con la base de datos de películas y sus comentarios.

1. El ejercicio consiste en obtener, por país, el número de películas que hay de cada genero. Un ejemplo de salida, en formato de tabla, sería:

pais	genero	peliculas
USA	Short	10
USA	Drama	20
...

Respuesta:

The screenshot shows the MongoDB Compass interface with two aggregation queries. The first query uses the `$match` operator to filter for movies from the USA. The second query uses the `$unwind` operator to decompose an array field. Both queries show sample output documents.

Query 1: \$match

```
1 / **
2 * query: The query in MQL.
3 */
4 {
5   type: "movie"
6 }
```

Output after \$match stage (Sample of 20 documents)

```
{
  "released": "1893-05-09T00:00:00+00:00",
  "directors": Array,
  "rated": "UNRATED",
  "awards": Object,
  "lastupdated": "2015-08-26 00:03:50.133000000",
  "year": 1893,
  "imdb": Object,
  "type": "movie",
  "tomatoes": Object,
  "_id": ObjectId("573a1390f29313caabed4135"),
  "plot": "A group of bandits sta up, only to find a dete",
  "genres": Array,
  "runtime": 11,
  "cast": Array,
  "poster": "https://m.media-amazon.com/images/M/M...amazon.com/images/M/M...title: \"The Great Train Robber\"",
  "num_mflix_comments": 1,
  "title": "Blacksmith Scene",
  "fullplot": "A stationarv camera looks at a large an"
}
```

Query 2: \$unwind

```
1 / **
2 * path: Path to the array field.
3 * includeArrayIndex: Optional name for index.
4 * preserveNullAndEmptyArrays: Optional
5   toggle to unwind null and empty values.
6 */
7 {
8   path: "$countries"
9 }
```

Output after \$unwind stage (Sample of 20 documents)

```
{
  "_id": ObjectId("573a1390f29313caabed4135"),
  "plot": "Three men hammer on an anvil and pass a bottle of beer around.",
  "genres": Array,
  "runtime": 1,
  "cast": Array,
  "num_mflix_comments": 1,
  "title": "Blacksmith Scene",
  "fullplot": "A stationarv camera looks at a large an"
}
```

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION Untitled- Modified SAVE SAMPLE MODE AUTO PREVIEW

Output after \$unwind stage (Sample of 20 documents)

```

1 /**
2  * path: Path to the array field.
3  * includeArrayIndex: Optional name for index.
4  * preserveNullAndEmptyArrays: Optional
5  * toggle to unwind null and empty values.
6  */
7 {
8   path: "$countries"
9 }

```

```

_id: ObjectId("573a1390f29313caabcd4135")
plot: "Three men hammer on an anvil and pass a
      bottle of beer around."
genres: Array
runtime: 1
cast: Array
num_mflix_comments: 1
title: "Blacksmith Scene"
fullplot: "A stationary camera looks at a large any

```

```

_id: ObjectId("573a1390f29313caabcd4135")
plot: "A group of bandits sta
      up, only to find a dete
genres: Array
runtime: 11
cast: Array
poster: "https://m.media-
      amazon.com/images/M/M
title: "The Great Train Robbe

```

Output after \$unwind stage (Sample of 20 documents)

```

1 /**
2  * path: Path to the array field.
3  * includeArrayIndex: Optional name for index.
4  * preserveNullAndEmptyArrays: Optional
5  * toggle to unwind null and empty values.
6  */
7 {
8   path: "$genres"
9 }

```

```

num_mflix_comments: 1
title: "Blacksmith Scene"
fullplot: "A stationary camera looks at a large any
      with a blacksmith behind it..."
countries: "USA"
released: 1893-05-09T00:00:00.000+00:00
directors: Array
rated: "UNRATED"
awards: Object
lastupdated: "2015-08-26 00:03:50.133000000"

```

```

_id: ObjectId("573a1390f29313caabcd4135")
plot: "A group of bandits sta
      up, only to find a dete
genres: "Short"
runtime: 11
cast: Array
poster: "https://m.media-
      amazon.com/images/M/M
title: "The Great Train Robbe

```

sample_mflix.movies DOCUMENTS 23.5k TOTAL SIZE 35.9MB AVG. SIZE 1.6KB INDEXES 2 TOTAL SIZE 13.2MB AVG. SIZE 1.6KB

Documents Aggregations Schema Explain Plan Indexes Validation

COLLATION Untitled- Modified SAVE SAMPLE MODE AUTO PREVIEW

Output after \$group stage (Sample of 20 documents)

```

1 /**
2  * _id: The id of the group.
3  * fieldN: The first field name.
4  */
5 {
6   _id: {pais: "$countries", genero: "$genres"},
7   num_peliculas_por_genero: {
8     $sum: 1
9   }
10 }

```

```

_id: Object
num_peliculas_por_genero: 4

```

```

_id: Object
num_peliculas_por_genero: 2

```

Output after \$project stage (Sample of 20 documents)

```

1 /**
2  * specifications: The fields to
3  * include or exclude.
4  */
5 {
6   num_peliculas_por_genero: 1,
7   pais: "$_id.pais",
8   genero: "$_id.genero",
9   _id: 0
10 }

```

```

num_peliculas_por_genero: 15
pais: "Finland"
genero: "Fantasy"

```

```

num_peliculas_por_genero: 29
pais: "Finland"
genero: "Crime"

```