

**Assignment 1 - MongoDB Queries**  
by  
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**Query 1- The movies titled "Gladiator".**

**Solution-**

```
db.Movies.aggregate([
  {
    $match:{
      title:"Gladiator"
    }
  },
  {
    $project :{
      "title" :1,
      "year" : 1,
      " genere":1,
      "summary":1,
      "country":1
    }
  }
])
```

```
{
  _id: 'movie:9',
  title: 'Gladiator',
  year: 2000,
  summary: "Le général romain Maximus est le plus fidèle
  country: 'USA'
}
```

Query 2- The distinct genre values of movies.

Solution

Answer

```
{
  _id: 'Horreur'
}
{
  _id: 'Comédie'
}
{
  _id: 'Guerre'
}
{
  _id: 'Thriller'
}
```

```
db.Movies.aggregate([
  {
    $group: {
      _id: "$genre"
    }
  })
])
```

Query 3- The movies of "crime" or "drama" genre.

Solution

Answer

```
db.Movies.aggregate([
  {
    $project : {
      "title":1,
      "year":1,
      "genre":1
    }
  },
  {
    $match: {
      $or : [
        {genre: "crime"},
        { genre:"drama"}
      ]
    }
  }
])
```

```
{
  _id: 'movie:1',
  title: 'Vertigo',
  year: 1958,
  genre: 'drama'
}
{
  _id: 'movie:3',
  title: 'Titanic',
  year: 1997,
  genre: 'drama'
}
```

**Query 4 - The list of movies directed by "Hitchcock", display only title and year and sort them by year.**

```
db.Movies.aggregate([
  { $match : { "director.last_name" : "Hitchcock" } },
  { $project: {
    "title":1,
    "year":1
  } },
  { $sort: {
    "year":1
  } }
])

[
  {
    _id: 'movie:40',
    title: 'Fenêtre sur cour',
    year: 1954
  },
  {
    _id: 'movie:41',
    title: 'La mort aux trousses',
    year: 1959
  }
]
```

**Query 5- The list of movies where "Cotillard" played.**

**Solution**

```
db.Movies.aggregate([
  {
    $match: {
      actors: {
        $elemMatch: { last_name: "Cotillard" }
      }
    }
  },
  {
    $project: {
      _id: 0,
      title: 1
    }
  }
])

[
  {
    title: 'Inception'
  },
  {
    title: 'The Dark Knight Rises'
  }
]
```

Query 6- The movies released between 1967 and 1995.

```
db.Movies.aggregate([
  {
    $project:{
      "title":1,
      "year":1
    },
    {
      $match: {
        year: { $gte: 1967, $lte: 1995 }
      }
    }
  ])
```

```
{
  _id: 'movie:2',
  title: 'Alien',
  year: 1979
}
{
  _id: 'movie:4',
  title: 'Sacrifice',
  year: 1986
}
{
  _id: 'movie:8',
  title: 'Impitoyable',
  year: 1992
}
```

Query 7 - The list of the movies released between 1967 and 1995, by displaying only title, year, director's last name sorted by year.

```
db.Movies.aggregate([
  {
    $sort: { "year": 1 }
  },
  {
    $project:{
      "title":1,
      "year":1
    },
    {
      $match: {
        year: { $gte: 1967, $lte: 1995 }
      }
    }
  ])
```

```
{
  _id: 'movie:54',
  title: 'Le parrain',
  year: 1972
}
{
  _id: 'movie:68',
  title: 'Soleil vert',
  year: 1973
}
{
  _id: 'movie:55',
  title: 'Le parrain II',
  year: 1974
}
```

Query 8 -The number of movies by country.

```
db.Movies.aggregate([
  {
    $group: {
      _id: "$country",
      count: { $sum: 1 }
    }
  },
  {
    $project: {
      "country": "$_id",
      "count": 1,
      "_id": 0
    }
  }
])
```

country	count
USA	67
IT	2
FR	17

Query 9 - The number of movies by country and actor.

```
db.Movies.aggregate([
  {
    $unwind: "$actors"
  },
  {
    $group: {
      _id: {
        country: "$country",
        actor: "$actors.last_name"
      },
      count: { $sum: 1 }
    }
  },
  {
    $project: {
      country: "$_id.country",
      actor: "$_id.actor",
      count: 1,
      _id: 0
    }
  }
])
```

country	actor	count
USA	Macy	1
USA	Bale	3
FR	De Funs	1

