BEDU: Introducción a Bases de Datos 2020

Proyecto Final

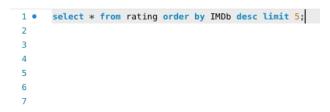
"Análisis de Plataformas de Streaming"

Armando Gómez

Introducción a Bases de Datos

1.- ¿Cuáles son los ratings de las 5 películas de mayor puntuación en IMDb?

select * from rating order by IMDb desc limit 5;



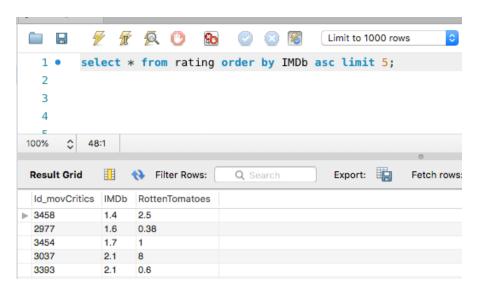
Result Grid		Name of the Filter Rows:	Q Search	Export:	F
Id_movCritics	IMDb	RottenTomatoes			
6567	9.3	0.78			
7221	9.3	1.33			
7427	9.3	2.5			
5111	9.3	2			
6838	9.3	0.44			

Project// {_id:0, RottenTomatoes: 0}
Sort // { IMDb : -1}



2.- ¿Cuáles son las 5 películas de menor puntuación en IMDb?

select * from rating order by IMDb asc limit 5;

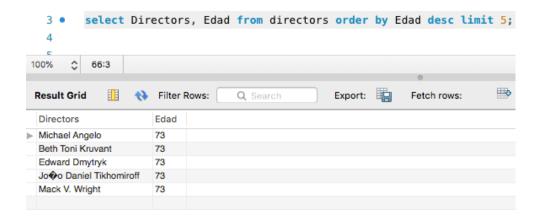


Project// {_id:0, RottenTomatoes: 0}
Sort // { IMDb : 1}

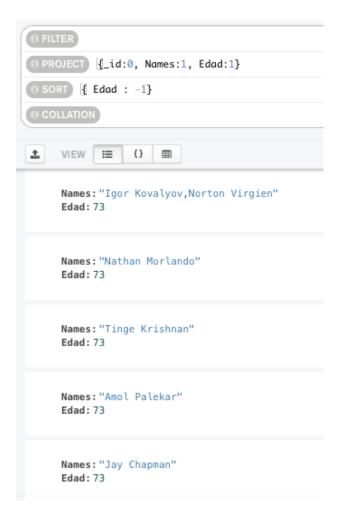


3.- ¿Cuáles son los 5 directores de mayor edad?

select Directors, Edad from directors order by Edad desc limit 5;



Project // {_id:0, Names:1, Edad:1} Sort// { Edad : -1}



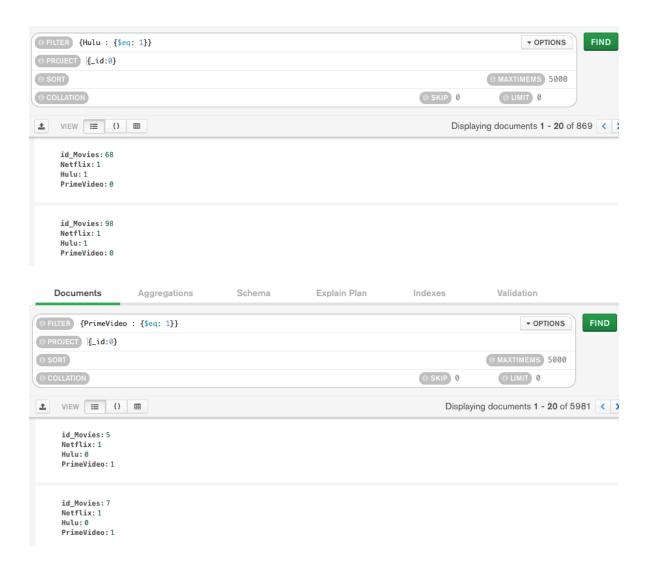
FIND

4.- ¿Cuántas películas tiene cada plataforma?

Netflix: 1 Hulu: 0 PrimeVideo: 0

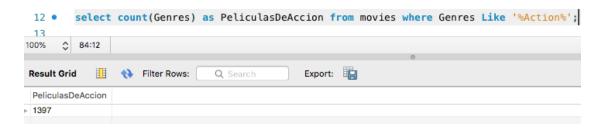
id_Movies: 2 Netflix: 1 Hulu: 0 PrimeVideo: 0

```
select count(Netflix) as Peliculas from platforms where Netflix = 1
Union
select count(Hulu) from platforms where Hulu = 1
union
select count(PrimeVideo) from platforms where PrimeVideo = 1;
        select count(Netflix) as Peliculas from platforms where Netflix = 1
  5 •
  6
        Union
  7
        select count(Hulu) from platforms where Hulu = 1
        union
  8
  9
        select count(PrimeVideo) from platforms where PrimeVideo = 1;
 10
      ≎ 68:5
100%
Result Grid
           Filter Rows:
                                Q Search
                                                Export:
Peliculas
3376
869
5981
Filter // {Netflix : {$eq: 1}}
Filter // {Hulu : {$eq: 1}}
Filter // {PrimeVideo : {$eq: 1}}
 S FILTER {Netflix : {$eq: 1}}
                                                                             ▼ OPTIONS
 9 PROJECT [{_id:0}
 (1) SORT
                                                                        MAXTIMEMS 5000
 (a) COLLATION
                                                                          1 LIMIT 0
 ± VIEW 📜 {} ⊞
                                                                 Displaying documents 1 - 20 of 3376 < >
     id_Movies: 1
```

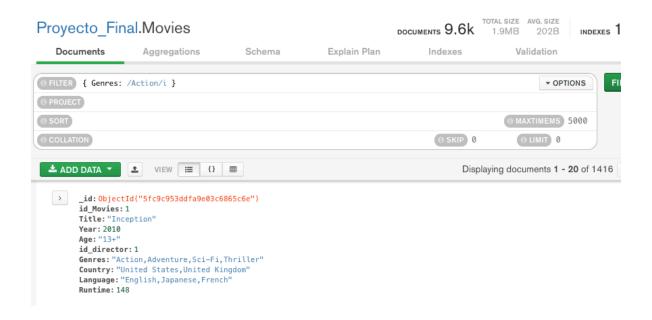


5.- ¿Cuántas películas del genero acción hay en total en las 3 plataformas?

select count(Genres) as PeliculasDeAccion from movies where Genres Like
'%Action%';

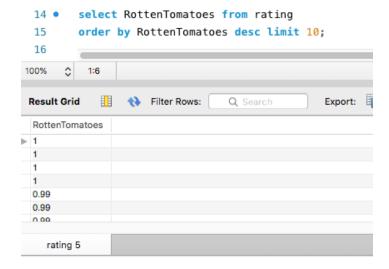


Filter// { Genres: /Action/i }

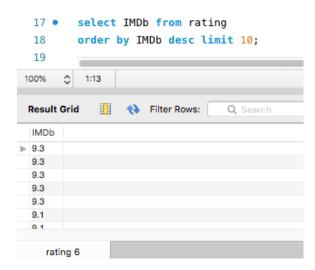


6.- ¿Cuáles son las 10 mayores puntuaciones en Tomato Roten y en IMDb?

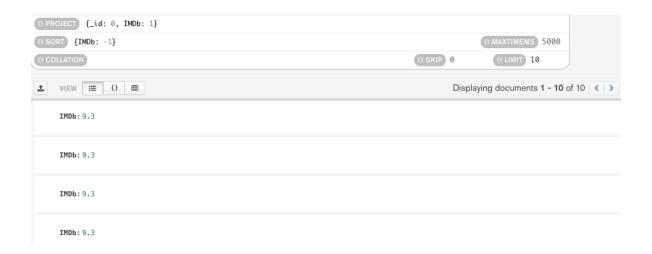
select RottenTomatoes from rating
order by RottenTomatoes desc limit 10;



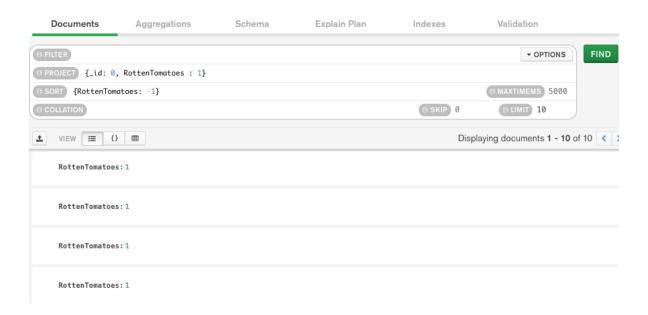
```
select IMDb from rating
order by IMDb desc limit 10;
```



```
filter={}
project={
    '_id': 0,
    'IMDb': 1
}
sort=list({
    'IMDb': -1
}
```



```
project={
    '_id': 0,
    'RottenTomatoes': 1
}
sort=list({
    'RottenTomatoes': -1
}.items())
limit=10
```



7.- ¿Qué directores tienen las 10 películas más recientes?

```
select directors.Directors Nombre, movies.Title Título, movies.Year Año
from movies
join directors on
movies.ID_Director = directors.id_Director
order by año desc;
```

```
select directors.Directors Nombre, movies.Title Título, movies.Year Año
  27
           from movies
           join directors on
  28
  29
           movies.ID_Director = directors.id_Director
  30
           order by año desc;
  31
100%
        0
           1:24
                                                                                             1
 Result Grid
                        Filter Rows:
                                         Q Search
                                                            Export:
                                                                            Fetch rows:
  Nombre
                          Título
                                                                    Año
                          Sufna
                                                                    2020
Jagdeep Sidhu
  Anthony Mandler
                          Happiness Continues
                                                                    2020
 Srividva Basawa
                          Madha
                                                                    2020
 Alex D@az
                          Alex Fernndez: The Best Comedian in the World
                                                                    2020
 Naviot Gulati
                          Jai Mummy Di
                                                                    2020
  Stanley Moore, Alex Woo
                          Go! Go! Cory Carson: The Chrissy
                                                                    2020
 Mikel Rueda
                          Fronteras
                                                                    2020
  Jos Humphrey, Kenny Park
                         Carmen Sandiego: To Steal or Not to Steal
                                                                    2020
 Malik Nejer
                          Masameer: The Movie
                                                                    2020
  Susan Johnson
                          To All the Boys I've Loved Before
                                                                    2020
  Don Michael Paul
                          Bulletproof 2
                                                                    2020
    Result 31
```

```
[{$sort: {
    Year: -1
}}, {$lookup: {
    from: "Directors",
    localField: "id_director",
    foreignField: "id_Director",
    as: "Mov_Directors"
}}]
```

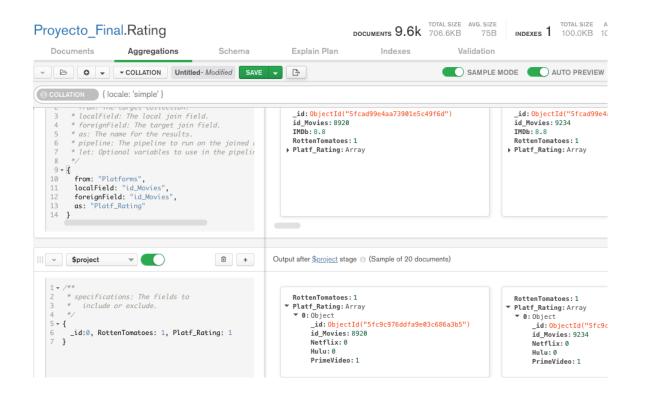


8.- ¿En qué plataforma se encuentran las 10 películas con mayor puntuación en IMDb?

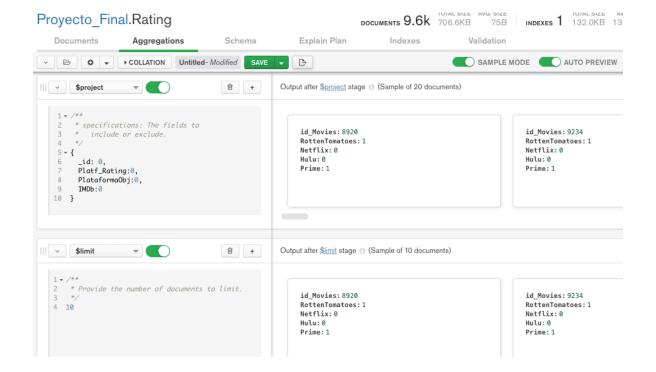
```
select rating.IMDb RatingIMDb, platforms.Netflix Netflix, platforms.Hulu Hulu,
       platforms.PrimeVideo Prime
       from rating
        join platforms on rating.Id_movCritics = platforms.ID_MOV
        order by IMDb desc limit 10;
        34 •
             select rating.IMDb RatingIMDb, platforms.Netflix Netflix, platforms.Hulu Hulu, platforms.PrimeVideo Prime
        35
              from rating
         36
             join platforms on rating.Id_movCritics = platforms.ID_MOV
         37
              order by IMDb desc limit 10;
        100% 🗘 20:30
                                                                Result Grid ## Filter Rows:
                                                                                              RatingIMDb Netflix Hulu Prime
                    0
        9.3
              0
        9.3
                    0
        9.3
        9.1
                    0
          Result 35
        [{$sort: {
          IMDb: -1
       }}, {$lookup: {
         from: "Platforms",
          localField: "id_Movies",
          foreignField: "id_Movies",
          as: "Platf_Rating"
       }}, {$addFields: {
          PlataformaObj:{$arrayElemAt: ["$Platf Rating", 0]}
        }}, {$addFields: {
          Netflix: "$PlataformaObj.Netflix",
          Hulu: "$PlataformaObj.Hulu",
          Prime: "$PlataformaObj.PrimeVideo"
        }}, {$project: {
          _id: 0,
          Platf Rating:0,
          PlataformaObj:0,
          RottenTomatoes:0
       }}, {$limit: 10}]
||| v $limit
                                  1 +
                                             Output after $limit stage () (Sample of 10 documents)
  2 * Provide the number of documents to limit.
3 */
                                                id_Movies: 7427
                                                                                           id_Movies: 5111
  4 10
                                                IMDb: 9.3
                                                                                           TMDb - 9 3
                                                Netflix: 0
                                                                                           Netflix: 0
                                                Hulu: 0
                                                                                           Hulu: 0
                                                Prime: 1
                                                                                           Prime: 1
```

9.- ¿En qué plataforma se encuentran las 10 películas con mayor puntuación en Rotten Tomatoes?

```
select rating.RottenTomatoes RatingRotten, platforms.Netflix,
  platforms.Hulu Hulu, platforms.PrimeVideo Prime
  join platforms on rating.Id_movCritics = platforms.ID_MOV
  order by RottenTomatoes desc limit 10;
 39 •
       select rating.RottenTomatoes RatingRotten, platforms.Netflix Netflix, platforms.Hulu Hulu, platforms.PrimeVideo Prime
 40
       from rating
 41
       join platforms on rating.Id_movCritics = platforms.ID_MOV
 42
       order by RottenTomatoes desc limit 10;
 43
 45
     ≎ 58:36
100%
                                                              -
                                        Export: Fetch rows:
                                                                                                       Result Grid
          Filter Rows:
                            Q Search
                                                                                                             Resu
Gri
 RatingRotten Netflix Hulu
                   Prime
▶ 10
               0
 10
          0
               0
 10
               0
                   0
               0
 10
                   0
 10
               0
                   0
 10
          0
               0
 10
               0
                   0
               0
 10
                   0
 10
                   0
                   0
 10
               0
```

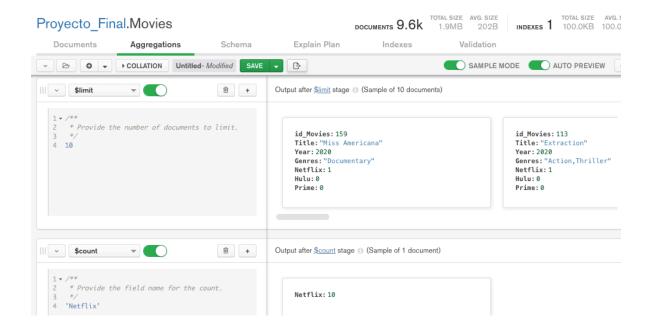


```
[{$sort: {
  RottenTomatoes: -1
}}, {$lookup: {
 from: "Platforms",
 localField: "id_Movies",
 foreignField: "id_Movies",
 as: "Platf_Rating"
}}, {$addFields: {
  PlataformaObj:{$arrayElemAt: ["$Platf_Rating", 0]}
}}, {$addFields: {
  Netflix: "$PlataformaObj.Netflix",
 Hulu: "$PlataformaObj.Hulu",
  Prime: "$PlataformaObj.PrimeVideo"
}}, {$project: {
  _id: 0,
 Platf_Rating:0,
  PlataformaObj:0,
  IMDb:0
}}, {$limit: 10}]
```



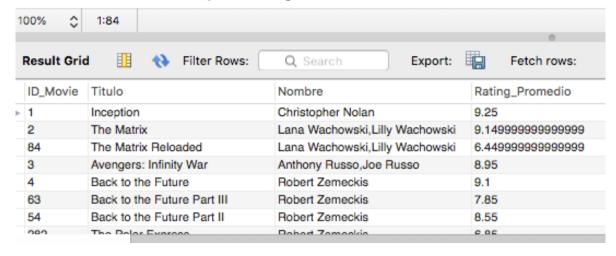
10.- ¿En qué plataforma se encuentran las 10 películas más recientes?

```
select movies. Year, platforms. Hulu Hulu, platforms. Netflix,
platforms.PrimeVideo Prime
from movies
join platforms
on movies.ID = platforms.ID_MOV
order by movies. Year DESC limit 10;
  44 • select movies. Year, platforms. Hulu Hulu, platforms. Netflix, platforms. Prime Video Prime
  45
       from movies
     join platforms
  47
      on movies.ID = platforms.ID_MOV
       order by movies. Year DESC limit 10;
  48
  49
  50
 100%
      ♦ 39:42
                                                             -
 Result Grid
          Filter Rows:
                                        Export:
                                                  Fetch rows:
 Year Hulu Netflix Prime
▶ 2020
     0
  2020 0
               0
  2020 0
  2020 0
               0
  2020 0
  2020 0
  2020
  2020 0
               0
  2020 0
               0
  2020 0
               0
[{$sort: {
  Year: -1
}}, {$lookup: {
  from:"Platforms",
  localField: 'id_Movies',
  foreignField: 'id_Movies',
  as: 'string'
}}, {$addFields: {
  PlatObj: {$arrayElemAt:["$string", 0] }
}}, {$addFields: {
  Netflix: "$PlatObj.Netflix",
  Hulu: "$PlatObj.Hulu",
  Prime: "$PlatObj.PrimeVideo"
}}, {$project: {
  _id:0,
  string:0,
  Age:0,
  PlatObj:0,
  Language:0,
  Country:0,
  Runtime:0,
  id_director:0
  }}, {$limit: 10}, {$count: 'Netflix'}]
```



11.- Crea una vista que contenga ID y titulo de película, nombre del director y el promedio de calificación entre IMDb y Rotten Tomatoes.

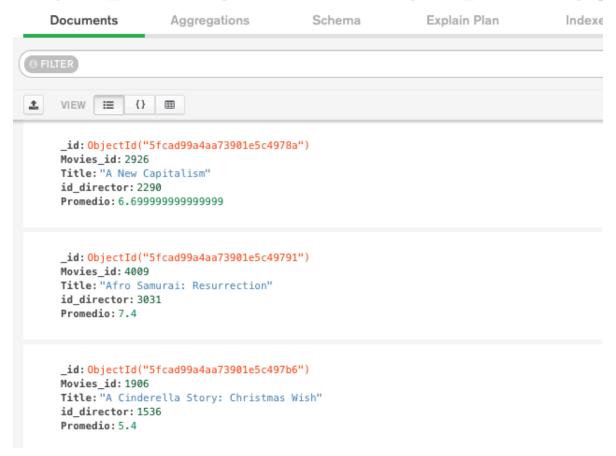
87 • select * from promrating;



--Creo la Vista del lookup entre Movies y Rating donde calculo el Rating Promedio, con esto solo me falta agregar con otro lookup el nombre del director de la tabla Directors.

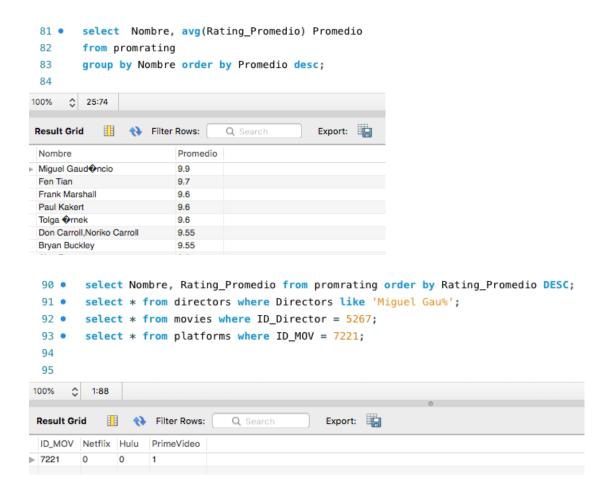
```
[{$lookup: {
  from: 'Movies',
  localField: 'id_Movies',
 foreignField: 'id_Movies',
  as: 'Movies'
}}, {$addFields: {
  MovObj: {$arrayElemAt:["$Movies", 0] }
}}, {$addFields: {
 Movies id: "$MovObj.id Movies",
 Title: "$MovObj.Title",
  id_director:"$MovObj.id_director"
}}, {$project: {
 Title: 1,
 Movies id: 1,
  id director: 1,
  Suma:
            {$sum:
      [{$multiply:
        ["$RottenTomatoes", 10]},"$IMDb"]
}}, {$project: {
 Title: 1,
 Movies_id: 1,
  id director: 1,
  Promedio : {
    $divide : [ "$Suma", 2 ]
}}]
--Creo una segunda vista entre la primer vista y Directors para agregar el
nombre del director.
[{$lookup: {
  from: 'Directors',
  localField: 'id director',
 foreignField: 'id_Director',
  as: 'DirectorInfo'
}}, {$addFields: {
  DirectorObj: {$arrayElemAt:["$DirectorInfo", 0] }
}}, {$addFields: {
 Name: "$DirectorObj.Names"
}}, {$project: {
 Movies_id: 1,
 Title: 1,
 Name: 1,
  Promedio: 1,
 }}]
```

Proyecto_Final.RatingProm (view on: Proyecto_Final.Rating)

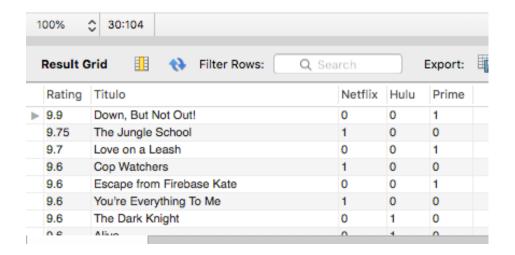


12.- ¿Qué plataforma tiene más películas del director con mayor puntuación en sus películas?

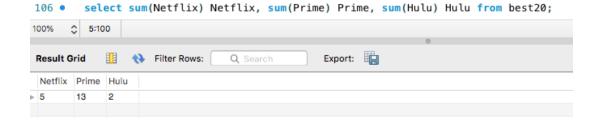
```
select Nombre, Rating_Promedio from promrating order by Rating_Promedio DESC;
select * from directors where Directors like 'Miguel Gau%';
select * from movies where ID_Director = 5267;
select * from platforms where ID_MOV = 7221;
```



13.- ¿En que plataforma están las 20 películas mejor evaluadas en promedio entre IMDb y Rotten Tomatoes?

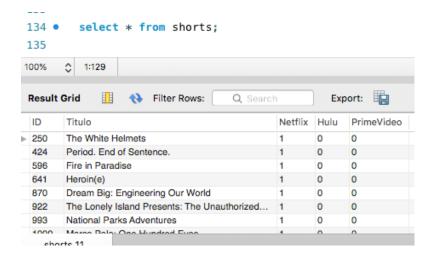


select sum(Netflix) Netflix, sum(Prime) Prime, sum(Hulu) Hulu from best20;



14.- ¿Qué plataforma tiene mayor cantidad de cortometrajes?

```
create view shorts as
select movies.ID ID, movies.Title Titulo, platforms.Netflix, platforms.Hulu,
platforms.PrimeVideo
from movies
right join platforms on movies.ID = platforms.ID_MOV
where Genres like '%Short%';
```



```
select sum(Netflix) ShortsOnNetflix,
             sum(PrimeVideo) ShortsOnPrime,
        sum(Hulu) ShortsOnHulu
from shorts;
         select sum(Netflix) ShortsOnNetflix,
                  sum(PrimeVideo) ShortsOnPrime,
130
                  sum(Hulu) ShortsOnHulu
131
132
         from shorts;
133
134
135
100%
       29:127
 Result Grid
                 Filter Rows:
                                                  Export:
                                  Q Search
 ShortsOnNetflix ShortsOnPrime ShortsOnHulu
```

15.- ¿Qué plataforma tiene más contenido en minutos?

0

The Pianist

150

```
create view Runtime as
select movies.Runtime, movies.Title, platforms.Hulu Hulu, platforms.Netflix,
platforms.PrimeVideo
from movies
join platforms on movies.ID = platforms.ID_MOV;
134 •
       create view Runtime as
       select movies.Runtime, movies.Title, platforms.Hulu Hulu, platforms.Netflix, platforms.PrimeVideo
135
136
       from movies
137
       join platforms on movies.ID = platforms.ID_MOV;
100% 🗘 3:131
                                                                  1
Q Search
                                          Export:
                                                     Fetch rows:
 Runtime Title
                              Hulu Netflix PrimeVideo
▶ 148
 136
       The Matrix
                             0
                                        0
       Avengers: Infinity War
 149
                              0
 116 Back to the Future
                              0
                                        0
 161
       The Good, the Bad and the Ugly
 117 Spider-Man: Into the Spider-Verse 0
```