MOVIES

1. Analyze Ad-Hoc Business Questions

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Ad-Hoc Business Questions

1. Project Goals

In this project, I worked on a database in MySQL environment to analyze the data and answer some business questions. For doing this, I work with several tables and run SQL queries and functions to find the best answer for each question.

2. Language, libraries, tools:

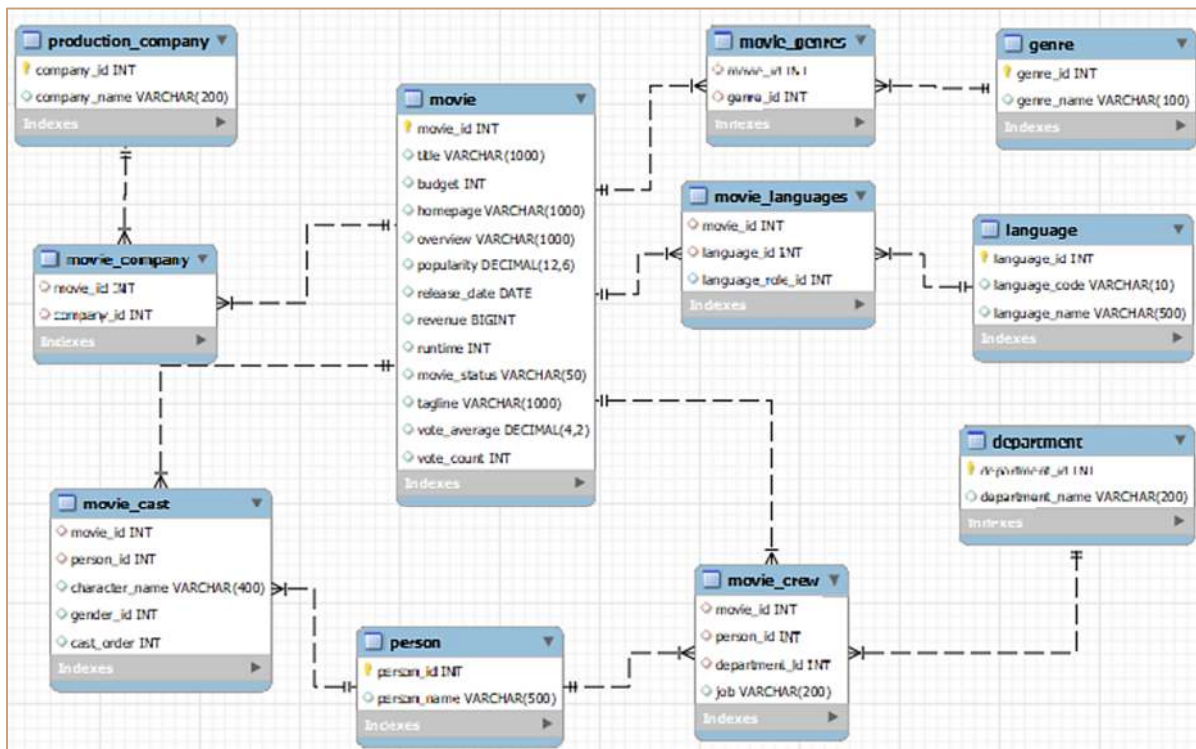**Language:** SQL

Libraries: -

IDE: MySQL

Application: Microsoft Excel

3. Data

There are 17 tables in this database that in the below you can see their attribute type and ER model (entity relationship).

Ad-Hoc Business Questions

In this section we want to analyze data in MySQL environment using SQL queries. So, by doing this we can answer some ad-hoc questions that might be asked in daily-basis business.

1. How much did movies cost per minute?

```sql
SELECT title, budget, runtime, ROUND(budget / runtime, 2) AS "Budget_Per_Minute"
FROM movie;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

title	budget	runtime	"Budget_Per_Minute"
Four Rooms	4000000	98	40816.33
Star Wars	11000000	121	90909.09
Finding Nemo	94000000	100	940000.00
Forrest Gump	55000000	142	387323.94
American Beauty	15000000	122	122950.82
Dancer in the Dark	12800000	140	91428.57
The Fifth Element	90000000	126	714285.71
Metropolis	92620000	153	605359.48

2. What is the top-5 movies in terms of budget?

```sql
SELECT title, budget
FROM movie
ORDER BY budget desc
LIMIT 5;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

title	budget
Pirates of the Caribbean: On Stranger Tides	380000000
Pirates of the Caribbean: At World's End	300000000
Avengers: Age of Ultron	280000000
Superman Returns	270000000
Tangled	260000000

3. In terms of release date, how old is every single movie? Show the top-10 Youngest movies.

```sql
SELECT release_date, title, (YEAR(CURDATE()) - YEAR(release_date)) as Age
FROM movie
ORDER BY Age asc
LIMIT 10;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

release_date	title	Age
2017-02-03	Growing Up Smith	6
2016-02-04	Pride and Prejudice and Zombies	7
2016-07-14	Ghostbusters	7
2016-02-19	Triple 9	7
2016-06-22	Independence Day: Resurgence	7
2016-08-26	Hands of Stone	7
2016-05-25	Warcraft	7
2016-07-07	Star Trek Beyond	7
2016-05-11	The Angry Birds Movie	7

4. In which years did the producer make a movie? regardless of the number of movies.

```sql
SELECT DISTINCT year(release_date)
FROM movie
order by year(release_date) desc;
```

year(release_date)
2017
2016
2015
2014
2013
2012
2011
2010
2009

5. Which movies cost less than 50,000 and what were their genres? Just top-10

```sql
SELECT movie.title, movie.budget, genre.genre_name
FROM movie
JOIN movie_genres ON movie.movie_id = movie_genres.movie_id
JOIN genre ON movie_genres.genre_id = genre.genre_id
WHERE movie.budget < 50000
ORDER BY movie.budget DESC
limit 10;
```

title	budget	genre_name
Osama	46000	Drama
Down Terrace	31192	Drama
Down Terrace	31192	Action
Down Terrace	31192	Comedy
Clerks	27000	Comedy
Pink Narcissus	27000	Drama
Pink Narcissus	27000	Romance
Dry Spell	22000	Comedy
Dry Spell	22000	Romance

6. Which director did make the most popular movie in English and French language?

```sql
SELECT language.language_name, person.person_name, COUNT(*) as movie_count, MAX(movie.popularity) as max_popularity
FROM movie
join movie_crew on movie.movie_id = movie_crew.movie_id
join person on movie_crew.person_id = person.person_id
join movie_languages on movie.movie_id = movie_languages.movie_id
join language on movie_languages.language_id = language.language_id
GROUP BY language.language_name, person.person_name
having language.language_name IN ('English','Latin')
limit 1;
```

language_name	person_name	movie_count	max_popularity
English	Allison Anders	8	22.876230

7. Make a list of actors (actress) who played after the year 2010.

```sql
select person.person_name, movie.title, movie_crew.job
from movie
join movie_crew on movie.movie_id = movie_crew.movie_id
join person on movie_crew.person_id = person.person_id
where movie_crew.job = "Characters" and release_date > "2010-01-01"
GROUP BY person.person_id, movie.title, movie_crew.job;
```

8. How many horror movies did their budget exceed the average budget of all movies?

```sql
select movie.title, movie.budget, movie_genres.genre_id, genre.genre_name
from movie
join movie_genres on movie.movie_id = movie_genres.movie_id
join genre on genre.genre_id = movie_genres.genre_id
where genre.genre_name = 'Horror' and movie.budget > (SELECT AVG(movie.budget) FROM movie);
```

title	budget	genre_id	genre_name
Snakes on a Plane	33000000	27	Horror
Aliens vs Predator: Requiem	40000000	27	Horror
Silent Hill	50000000	27	Horror
The Ninth Gate	38000000	27	Horror
Interview with the Vampire	60000000	27	Horror
From Hell	35000000	27	Horror
Gremlins 2: The New Batch	50000000	27	Horror
Ghost Rider	110000000	27	Horror
Resident Evil	33000000	27	Horror

9. What is the bottom-10 popular movies, and which company made them?

```sql
SELECT movie.title, SUM(movie.popularity) as sum_popularity, production_company.company_name
FROM movie
JOIN movie_company ON movie.movie_id = movie_company.movie_id
JOIN production_company ON movie_company.company_id = production_company.company_id
GROUP BY movie.title, production_company.company_name
ORDER BY sum_popularity asc
LIMIT 10;
```

title	sum_popularity	company_name
Love Letters	0.001586	Millennium Films
Love Letters	0.001586	New World Pictures
Arnolds Park	0.006069	B.Sting Entertainment
Arnolds Park	0.006069	The Picture Factory
Anderson's Cross	0.006323	Illumination Pictures
Le bonheur d'Elza	0.007254	Canal Plus Overseas
Le bonheur d'Elza	0.007254	Aztec Musique
Le bonheur d'Elza	0.007254	France Tu00e9lu00e9vision
Four Single Fathers	0.008263	Indiana Production Company

10. Which movie companies invested the budget between 150K to 200K and for which movie?

```sql
SELECT movie.title, movie.budget, production_company.company_name
FROM movie
JOIN movie_company ON movie.movie_id = movie_company.movie_id
JOIN production_company ON movie_company.company_id = production_company.company_id
WHERE movie.budget BETWEEN 150000 AND 200000
ORDER BY budget DESC
limit 1;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:

	title	budget	company_name
▶	Per un pugno di dollari	200000	Jolly Film

– END –