

SQL WORK SHEET SET 05

Refer the following ERD and answer all the questions in this worksheet. You have to write the queries using MySQL for the required Operation.

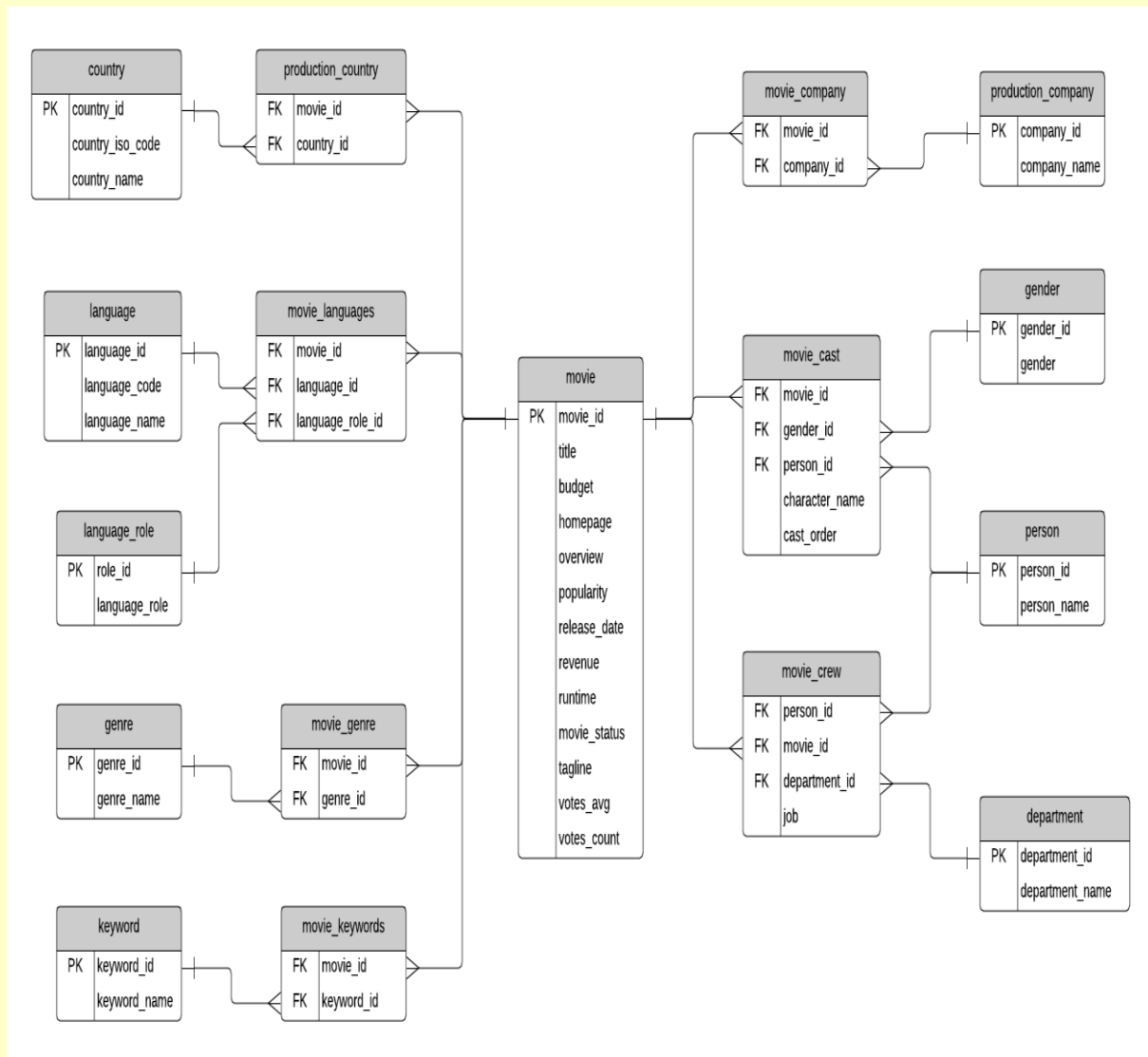


Table Explanations:

❑ The movie table contains information about each movie. There are text descriptions such as title and overview. Some fields are more obvious than others: revenue (the amount of money the movie made), budget (the amount spent on creating the movie). Other fields are calculated based on data used to create the data source: popularity, votes_avg, and votes_count. The status indicates if the movie is Released, Rumoured, or in Post-Production.

❑ The country list contains a list of different countries, and the movie_country table contains a record of which countries a movie was filmed in (because some movies are filmed in multiple countries). This is a standard many-to-many table, and you'll find these in a lot of databases.

❓ *The same concept applies to the production_company table. There is a list of production companies and a many-to-many relationship with movies which is captured in the movie_company table.*

❓ *The languages table has a list of languages, and the movie_languages captures a list of languages in a movie. The difference with this structure is the addition of a language_role table.*

❓ *This language_role table contains two records: Original and Spoken. A movie can have an original language (e.g. English), but many Spoken languages. This is captured in the movie_languages table along with a role.*

❓ *Genres define which category a movie fits into, such as Comedy or Horror. A movie can have multiple genres, which is why the movie_genres table exists.*

❓ *The same concept applies to keywords, but there are a lot more keywords than genres. I'm not sure what qualifies as a keyword, but you can explore the data and take a look. Some examples as "paris", "gunslinger", or "saving the world".*

❓ *The cast and crew section of the database is a little more complicated. Actors, actresses, and crew members are all people, playing different roles in a movie. Rather than have separate lists of names for crew and cast, this database contains a table called person, which has each person's name.*

❓ *The movie_cast table contains records of each person in a movie as a cast member. It has their character name, along with the cast_order, which I believe indicates that lower numbers appear higher on the cast list.*

❓ *The movie_cast table also links to the gender table, to indicate the gender of each character. The gender is linked to the movie_cast table rather than the person table to cater for characters which may be a different gender than the person, or characters of unknown gender. This means that there is no gender table linked to the person table, but that's because of the sample data.*

❓ *The movie_crew table follows a similar concept and stores all crew members for all movies. Each crew member has a job, which is part of a department (e.g. Camera).*

QUESTIONS:

1. Write SQL query to show all the data in the Movie table.

Answer: `SELECT * FROM movies`

2. Write SQL query to show the title of the longest runtime movie.

Answer:

```
SELECT title
FROM movies
ORDER BY runtime DESC
LIMIT 1
```

3. Write SQL query to show the highest revenue generating movie title.

Answer:

```
SELECT title  
FROM movies  
ORDER BY revenue DESC  
LIMIT 1
```

4. Write SQL query to show the movie title with maximum value of revenue/budget.

Answer:

```
SELECT title  
FROM movies  
ORDER BY revenue/budget DESC  
LIMIT 1
```

5. Write a SQL query to show the movie title and its cast details like name of the person, gender, character name, cast order.

Answer:

```
SELECT title, person_name, gender, character_name, cast_order  
FROM movies  
INNER JOIN movie_cast ON movies.movie_id = movie_cast.movie_id  
INNER JOIN gender ON movie_cast.gender_id = gender.gender_id  
INNER JOIN person ON movie_cast.person_id = person.person_id;
```

6. Write a SQL query to show the country name where maximum number of movies has been produced, along with the number of movies produced.

Answer:

```
SELECT country_name, COUNT(movie_id) AS movies_count  
FROM country  
INNER JOIN production_country ON country.country_id = production_country.country_id  
GROUP BY country_name  
ORDER BY movies_count DESC  
LIMIT 1
```

7. Write a SQL query to show all the genre_id in one column and genre_name in second column.

Answer:

```
SELECT *  
  
FROM genre
```

8. Write a SQL query to show name of all the languages in one column and number of movies in that particular column in another column.

Answer:

```
SELECT language_name, COUNT(movie_id) AS movies_count  
  
FROM language  
  
INNER JOIN movie_language ON language.language_id = movie_language.language_id  
  
GROUP BY language_name
```

9. Write a SQL query to show movie name in first column, no. of crew members in second column and number of cast members in third column.

Answer:

```
SELECT title, COUNT(DISTINCT movie_crew.person_id) AS crew_count,  
        COUNT(DISTINCT movie_cast.person_id) AS cast_count  
  
FROM movies  
  
INNER JOIN movie_crew ON movies.movie_id = movie_crew.movie_id  
  
INNER JOIN movie_cast ON movies.movie_id = movie_cast.movie_id  
  
GROUP BY title
```

10. Write a SQL query to list top 10 movies title according to popularity column in decreasing order.

Answer:

```
SELECT title  
  
FROM movies  
  
ORDER BY popularity DESC  
  
LIMIT 10
```

11. Write a SQL query to show the name of the 3rd most revenue generating movie and its revenue.

Answer:

```
SELECT title, revenue  
FROM (SELECT title, revenue  
FROM movies  
ORDER BY revenue DESC  
LIMIT 3) AS N  
ORDER BY revenue  
LIMIT 1
```

12. Write a SQL query to show the names of all the movies which have “rumoured” movie status.

Answer:

```
SELECT title  
FROM movies  
WHERE movie_status = “rumoured”
```

13. Write a SQL query to show the name of the “United States of America” produced movie which generated maximum revenue.

Answer:

```
SELECT title  
FROM movies  
INNER JOIN production_country ON movies.movie_id = production_country.movie_id  
INNER JOIN country ON production_country.coutry_id = country.country_id  
WHERE country_name = “United States of America”  
ORDER BY revenue DESC  
LIMIT 1
```

14. Write a SQL query to print the movie_id in one column and name of the production company in the second column for all the movies.

Answer:

```
SELECT movie_id, company_name  
FROM movie_company  
INNER JOIN production_company ON  
movie_company.company_id = production_company.company_id
```

15. Write a SQL query to show the title of top 20 movies arranged in decreasing order of their budget.

Answer:

```
SELECT title  
FROM movies  
ORDER BY budget DESC  
LIMIT 20
```