## Problem Description

Imagine you are working with a database for a movie rental company. The database has a table named `Movies` with the following structure:

**Movies** Table:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| MovieID | Title | Genre | ReleaseYear | Rating | BoxOfficeRevenue | Director |
| 1 | Inception | Sci-Fi | 2010 | 8.8 | 830000000 | Christopher Nolan |
| 2 | Titanic | Romance | 1997 | 7.8 | 2200000000 | James Cameron |
| 3 | The Godfather | Crime | 1972 | 9.2 | 134000000 | Francis Ford Coppola |
| 4 | Avatar | Sci-Fi | 2009 | 7.9 | 2840000000 | James Cameron |
| 5 | Interstellar | Sci-Fi | 2014 | 8.6 | 677000000 | Christopher Nolan |
| 6 | Parasite | Thriller | 2019 | 8.6 | 264000000 | Bong Joon Ho |
| 7 | The Dark Knight | Action | 2008 | 9.0 | 1000000000 | Christopher Nolan |
| 8 | Schindler's List | Drama | 1993 | 9.0 | 322000000 | Steven Spielberg |
| 9 | The Shawshank Redemption | Drama | 1994 | 9.3 | 28300000 | Frank Darabont |
| 10 | Pulp Fiction | Crime | 1994 | 8.9 | 213000000 | Quentin Tarantino |

## Questions

1. Retrieve all information about movies directed by Christopher Nolan.

=> SELECT \* FROM Movies WHERE Director = 'Christopher Nolan';

2. Find all distinct genres in the `Movies` table.

=> SELECT DISTINCT Genre FROM Movies;

3. Display the top 5 highest-rated movies, sorted by their rating in descending order.

=> SELECT TOP 5 \* FROM Movies ORDER BY Rating DESC;

4. List all movies released before the year 2000.

=> SELECT \* FROM Movies WHERE ReleaseYear < 2000;

5. Show the total number of movies in each genre.

=> SELECT Genre, COUNT(\*) AS TotalMovies FROM Movies GROUP BY Genre;

6. Find the total revenue of all movies in the `Sci-Fi` genre.

=> SELECT SUM(BoxOfficeRevenue) AS TotalRevenue FROM Movies WHERE Genre = 'Sci-Fi';

7. Retrieve the titles of movies with a rating greater than 8.5 but less than 9.0.

=> SELECT Title FROM Movies WHERE Rating > 8.5 AND Rating < 9.0;

8. Display the names of all movies that have the word 'The' in their title.

=> SELECT Title FROM Movies WHERE Title LIKE '%The%';

9. Find the movie with the highest box office revenue.

=> SELECT TOP 1 \* FROM Movies ORDER BY BoxOfficeRevenue DESC;

10. Retrieve the average rating of all movies released after the year 2000.

=> SELECT AVG(Rating) AS AverageRating FROM Movies WHERE ReleaseYear > 2000;