WHERE ……. > ……. AND ……. < ……. →

```
SELECT *
FROM actor
WHERE first_name = 'Penelope' AND last name = 'Monroe' ;
```

```
WHERE first_name = 'Penelope' OR first_name = 'Bob' ;
```

WHERE NOT → CLAUSE

```
WHERE NOT (rental_rate = 4.99 OR rental_rate = 2.99)
```

Homework-1

1- **Sort the data in the title and description columns in the first film table.**

SELECT title, description FROM film;

2- **Sort the data in all columns in the movie table with the film length greater than 60 AND less than 75.**

SELECT * FROM film
WHERE length >60 and length < 75;

3- **Sort the data in all columns in the film table with rental_rate 0.99 AND replacement_cost 12.99 OR 28.99.**

SELECT * from film
WHERE rental_rate = 0.99
AND replacement_cost = 28.99;

4- **What is the value in the last_name column of the customer whose value is 'Mary' in the first_name column of the customer table?**

SELECT first_name, last_name FROM customer
WHERE first_name = 'Mary';

5- **Sort the data in the movie table whose length is NOT greater than 50, but whose rental_rate is NOT 2.99 or 4.99.**

SELECT * FROM film
WHERE NOT (length<50)
AND NOT (rental_rate = 2.99 OR rental_rate = 4.99);

BETWEEN AND SYNTAX

```
SELECT <column_name>, <column_name>, ...
FROM <table_name>
WHERE <condition>;
-------------------------------------------------------------------------------------
SELECT *
FROM film
WHERE length BETWEEN 100 AND 140;
-------------------------------------------------------------------------------------

-- WHERE length > 100 AND length < 140
```

IN SYNTAX

```
SELECT *
FROM film
WHERE length IN (30,60,90,120);
```

We can also use the NOT IN construct for values out of the list.

Homework-2

1- **Sort all column data in the film table provided that the replacement cost value is greater than 12.99, equal and less than 16.99 (Use BETWEEN - AND structure.)**

```
SELECT * FROM film
WHERE replacement_cost BETWEEN 12.98 AND 16.98;
--12.99 and 16.99 included
```

2- **Sort the data in the first_name and last_name columns in the actor table provided that first_name is the values 'Penelope' or 'Nick' or 'Ed'. (Use the IN operator.)**

```
SELECT first_name, last_name FROM actor
WHERE first_name IN ('Penelope', 'Nick', 'Ed');
```

3- **Sort the data in all columns in the film table with rental_rate 0.99, 2.99, 4.99 AND replacement_cost 12.99, 15.99, 28.99. (Use the IN operator.)**

```
SELECT * FROM film
WHERE rental_rate IN (0.99, 2.99, 4.99)
AND replacement_cost IN (12.99, 15.99, 28.99);
```

LIKE / NOT LIKE

For multi character use '%' but for single character use '_' symbol

```
SELECT *
FROM actor
WHERE first_name LIKE 'P%';
```

```
SELECT *
FROM actor
WHERE first_name -- 'P%';

Both uses are same 😊

--* ➔ ILIKE
--  ➔ LIKE
!-- ➔ NOT LIKE
!--* ➔ NOT ILIKE

NOTE : The ILIKE operator is the case - insensitive version of the LIKE operator!
```

Homework-3

1- **List the country names in the country column of the country table, starting with the 'A' character and ending with the 'a' character.**

```
SELECT * FROM country
WHERE country ILIKE 'A%a';
```

2- **List the country names in the country column of the country table, consisting of at least 6 characters and ending with the 'n' character.**

```
SELECT country FROM country
WHERE country ILIKE '____%n';
```

3- **In the title column of the film table, list the movie names containing at least 4 'T' characters, regardless of upper- or lower-case letters.**

```
SELECT title FROM film
WHERE title ILIKE '%T%T%T%T%';
```

4- **From the data in all the columns in the film table, sort the data that starts with the title 'C' character, has a length greater than 90 and a rental_rate of 2.99.**

```
SELECT title, length, rental_rate FROM film
WHERE title LIKE 'C%' AND
length > 90 AND rental_rate = 2.99;
```

SELECT DISTINCT SYNTAX

```
SELECT DISTINCT <columnName>, <columnName>, ...
FROM <tableName>;
```

SELECT COUNT SYNTAX

```
SELECT COUNT(*)
FROM actor
WHERE first_name = 'Penelope';
```

MORE

```
SELECT COUNT(DISTINCT <columnName>)
FROM actor
```

Homework-4

1- **Sort the different values in the replacement cost column in the film table.**

SELECT DISTINCT replacement_cost FROM film;

2- **How many different data are there in the replacement cost column in the film table?**

SELECT COUNT(DISTINCT replacement_cost) FROM film;

3- **How many of the film titles in the film table start with the character T and at the same time the rating is equal to 'G'?**

SELECT COUNT(title) FROM film
WHERE title LIKE 'T%' AND
rating = 'G';

4- **How many of the country names (country) in the country table consist of 5 characters?**

SELECT COUNT(country) FROM country

WHERE country LIKE '_____';

5- **How many of the city names in the city table end with the character 'R' or r?**

SELECT COUNT(city) FROM city

WHERE city ILIKE '%r';

ORDER BY SYNTAX

```
SELECT <columnName>, <columnName>, ...
FROM <tableName>
ORDER BY <columnName>, <columnName>, ... ASC|DESC;
```

ASC ➔ INCREASING

DESC ➔ DECREASING

```
SELECT *
FROM film
WHERE title LIKE 'A%'
ORDER BY title ASC length DESC;
```

LIMIT

```
SELECT *
FROM film
WHERE title LIKE 'B%'
ORDER BY length DESC
LIMIT 10;
```

➔ Gives the 10 longest films.

OFFSET

```
SELECT *
FROM film
WHERE title LIKE 'B%'
ORDER BY length DESC
OFFSET 6
LIMIT 4;
```

➔ Skips the 6 longest film and gives other 4 film.

Homework-5

1- **List the 5 longest (length) films in the film table and the film title (title) ends with the 'n' character.**

```
SELECT * FROM film
WHERE title LIKE '%n'
ORDER BY length DESC
LIMIT 5;
```

2- **List the shortest (length) second (6,7,8,9,10) 5 films (6,7,8,9,10) in the film table and the film title ends with the 'n' character.**

```
SELECT * FROM film
WHERE title LIKE '%n'
ORDER BY length DESC
OFFSET 1
LIMIT 5;
```

3- **Sort the first 4 data, provided that store_id is 1 in the descending order according to the last_name column in the customer table.**

```
SELECT * from customer
WHERE store_id = 1
ORDER BY last_name DESC
LIMIT 4;
```

Aggregate Functions - MIN, MAX, SUM, AVG

```
SELECT AVG(length)
FROM film;
```

Homework-6

1- **What is the average of the values in the rental_rate column in the film table?**

```
SELECT AVG(rental_rate) FROM film;
```

2- **How many of the movies in the film table start with the character 'C'?**

```
SELECT COUNT(title) FROM film
WHERE title LIKE 'C%';
```

3- **Among the movies in the film table, how many minutes is the longest (length) film with a rental_rate equal to 0.99?**

```
SELECT MAX(length) FROM film
WHERE rental_rate = 0.99;
```

4- **How many different replacement_cost values are there for the films longer than 150 minutes in the film table?**

```
SELECT COUNT(replacement_cost) FROM film
WHERE length > 150 ;
```

GROUP BY

```
SELECT rental_rate, MAX(length)
FROM film
GROUP BY rental_rate;
```

HAVING

```
SELECT rental_rate, COUNT(*)
FROM film
GROUP BY rental_rate
HAVING COUNT(*) > 325;
```

Homework-7

1- Group the films in the film table according to their rating values.

```
SELECT rating FROM film
GROUP BY rating;
```

2- When we group the films in the film table according to the replacement_cost column, list the replacement_cost value with more than 50 films and the corresponding number of films.

```
SELECT replacement_cost, COUNT(*) FROM film
GROUP BY replacement_cost
HAVING COUNT(*) > 50;
```

3- What are the customer numbers corresponding to the store_id values in the customer table?

```
SELECT store_id, COUNT(*) FROM customer
GROUP BY store_id;
```

4- After grouping the city data in the city table according to the country_id column, share the country_id information with the highest number of cities and the number of cities.

```
SELECT country_id, COUNT(*) FROM city
GROUP BY country_id
ORDER BY COUNT(*) DESC
LIMIT 1; --maximum city
```