```
WHERE ...... > ......... < ........ →
```

```
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

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 ②

--* → 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

<pre>SELECT DISTINCT <columnname>,</columnname></pre>	<columnname>,</columnname>	
<pre>FROM <tablename>;</tablename></pre>		

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
```

CREATING TABLE

```
--CREATE TABLE <table_name> (
-- <column_name> <data_type> <constraint>,
-- ...
-- <column_name> data_type> <constraint>
--);

CREATE TABLE author(
   id SERIAL PRIMARY KEY, --numeric (auto increases)
   first_name VARCHAR(50) NOT NULL,
   last_name VARCHAR(50) NOT NULL,
   email VARCHAR(100),
   birthday DATE
```

INSERT USES:

=,

```
INSERT INTO author (first_name, last_name, email, birthday)
   2
           ('Görkem', 'Töre', 'gorkemtore1@gmail.com', '2002-09-24'),
   3
           ('Mustafa','Çetindağ', 'mcetindag@hotmail.com', '1988-12-24'),
  4
   5
           ('Beyza','Töre','beyza@yandex.com','2004-8-10'),
           ('Selin', 'Güler', 'selinglr@gmail.com', '1999-02-20'),
   6
           ('Hasret','Yavuz','hasret02@hotmail.com','1995-04-21');
   7
OUTPUT:
 Query Query History
  1 SELECT * FROM author;
 Data Output Messages
                        Notifications
                                                         email
                  first_name
                                      last_name
                                                                              birthday
      [PK] integer
                                                         character varying (100)
                  character varying (50)
                                      character varying (50)
                                                                              date
1
                  Görkem
                                                          gorkemtore1@gmail.com
                                                                              2002-09-24
2
               2
                  Mustafa
                                      Çetindağ
                                                          mcetindag@hotmail.com
                                                                              1988-12-24
3
               3
                  Beyza
                                      Töre
                                                          beyza@yandex.com
                                                                              2004-08-10
                  Selin
                                      Güler
                                                          selinglr@gmail.com
                                                                              1999-02-20
 4
                4
5
                  Hasret
                                      Yavuz
                                                          hasret02@hotmail.com
                                                                              1995-04-21
COPYING TABLE SCHEMA :
      --copy table
      CREATE TABLE author2 (LIKE author);
  2
 Query Query History
    SELECT * FROM author2;
 Data Output
             Messages
                         Notifications
```

Copied schema but author2 table has not any data!

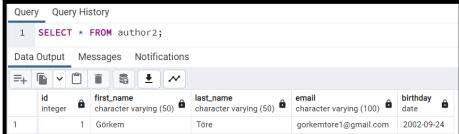
character varying (50)

character varying (100)

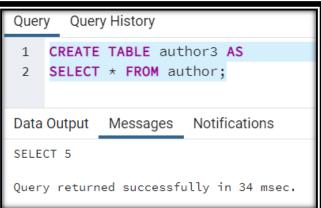
character varying (50)

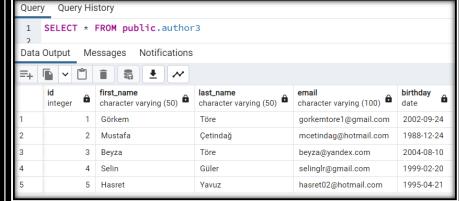
INSERTING author TO author2:





COPYING TABLE WITH DATAS:





DROP TABLE:

```
Query Query History

1 --DROP TABLE author2;
2 --DROP TABLE IF EXISTS author2;
3 --both are usable
```

UPDATE SYNTAX

DELETE SYNTAX

```
DELETE FROM <tablo_adi>
WHERE <kosul_adi>;
```

```
Query Query History
            CREATE TABLE employee(
    2
                      id INT,
                       name VARCHAR(50),
   3
                      birthday DATE,
   4
   5
                       email VARCHAR(100)
    6
           );
   7
   8
        insert into employee (id, name, birthday, email) values (1, 'Rubia', '2010-03-01', 'rraoux0@homestead.com');
       insert into employee (id, name, birthday, email) values (2, 'Janessa', '1930-06-25', 'jbaulk1@domainmarket.com'); insert into employee (id, name, birthday, email) values (3, 'Cecilia', '1958-04-08', 'cdeandisie2@cloudflare.com'); insert into employee (id, name, birthday, email) values (4, 'Mathilda', '1906-08-05', 'mmcnally3@fc2.com');
        insert into employee (id, name, birthday, email) values (5, 'Editha', '1960-05-18', 'edomney4@phpbb.com');
        insert into employee (id, name, birthday, email) values (6, 'Tallie', '1952-06-04', 'tswales@wp.com');
        insert into employee (id, name, birthday, email) values (7, 'Jay', '1922-07-10', 'jrehn6@cafepress.com');
15
       insert into employee (id, name, birthday, email) values (7, Jay , 1922-07-10 , ]] employee (id, name, birthday, email) values (8, 'Lucina', '1952-03-12', 'lfinnimore7@com.com'); insert into employee (id, name, birthday, email) values (9, 'Lavena', '1934-05-12', 'lsmye8@reuters.com');
16
        insert into employee (id, name, birthday, email) values (10, 'Caterina', '1945-07-26', 'cscarrott9@360.cn');
19
        insert into employee (id, name, birthday, email) values (11, 'Thaddeus', '1959-04-16', 'tseagea@usda.gov');
       insert into employee (id, name, birthday, email) values (12, 'Wallache', '2017-03-28', 'wtommerb@aboutads.info'); insert into employee (id, name, birthday, email) values (13, 'Yetta', '2016-08-12', 'ymawdittc@wunderground.com'); insert into employee (id, name, birthday, email) values (14, 'Bren', '1903-11-02', 'bmuzzollod@ovh.net');
20
21
22
        insert into employee (id, name, birthday, email) values (15, 'Pierrette', '1972-09-10', 'pmariellee@edublogs.org');
23
       insert into employee (id, name, birthday, email) values (16, 'Shelly', '1925-10-06', 'scampkinf@mac.com'); insert into employee (id, name, birthday, email) values (17, 'Corbet', '1936-03-08', 'creynaldsg@unicef.org');
24
25
       insert into employee (id, name, birthday, email) values (18, 'Virginia', '2004-11-20', 'wmathieuh@phoca.cz'); insert into employee (id, name, birthday, email) values (19, 'Andromache', '1922-08-27', 'adenyukhini@baidu.com');
27
       insert into employee (id, name, birthday, email) values (20, 'Brucie', '1965-06-11', 'bnorthcott]œwhitehouse.gov'); insert into employee (id, name, birthday, email) values (21, 'Barrie', '1919-12-24', 'bminerdok@fema.gov');
28
        insert into employee (id, name, birthday, email) values (22, 'Ludovico', '1960-02-20', 'lmussettil@bing.com')
       insert into employee (id, name, birthday, email) values (23, 'Gibbertina', '1934-03-01', 'gdeschellem@cargocollective.com'); insert into employee (id, name, birthday, email) values (24, 'Sylvester', '2019-11-07', 'smayburyn@fastcompany.com');
31
32
       insert into employee (id, name, birthday, email) values (25, 'Joshua', '2019-11-09', 'Smayburynerastcompany.com'); insert into employee (id, name, birthday, email) values (26, 'Amery', '2003-08-17', 'azanetellop@phpbb.com'); insert into employee (id, name, birthday, email) values (26, 'Amery', '2003-08-17', 'azanetellop@phpbb.com'); insert into employee (id, name, birthday, email) values (27, 'Ches', '1945-06-05', 'cperrycostq@cafepress.com'); insert into employee (id, name, birthday, email) values (28, 'Daniella', '2011-08-09', 'dwillr@indiegogo.com');
35
       insert into employee (id, name, birthday, email) values (29, 'Genovera', '2001-06-01', 'gbrittins@sina.com.cn'); insert into employee (id, name, birthday, email) values (30, 'Angelle', '1935-01-31', 'asillist@hud.gov'); insert into employee (id, name, birthday, email) values (31, 'Elliot', '1997-08-09', 'egaliau@blogspot.com'); insert into employee (id, name, birthday, email) values (32, 'Cory', '1974-11-21', 'ckoubekv@mapquest.com');
39
40
                                                                                                                            'Fawne', '1988-09-01', 'fmccritchiew@msu.edu');
        insert into employee (id, name, birthday, email) values (33,
        insert into employee (id, name, birthday, email) values (34,
                                                                                                                            'Lazare', '2000-04-19', 'lstealyx@blogs.com');
42
        insert into employee (id, name, birthday, email) values (35, 'Guendolen', '1949-09-07', 'gdruhany@vistaprint.com');
insert into employee (id, name, birthday, email) values (36, 'Nikaniki', '1901-05-29', 'nitzhaiekz@angelfire.com');
insert into employee (id, name, birthday, email) values (37, 'Ottilie', '2009-09-02', 'oshepherdson10@wikia.com');
43
                                                                                                                             'Colet', '1925-02-25', 'cmartignon11@sogou.com');
        insert into employee (id, name, birthday, email) values (38,
        insert into employee (id, name, birthday, email) values (39, 'Celina', '1932-09-07', 'cwarcop12@spotify.com');
insert into employee (id, name, birthday, email) values (40, 'Karl', '1902-11-06', 'kpointer13@msu.edu');
insert into employee (id, name, birthday, email) values (41, 'Jinny', '1938-08-25', 'jcaslake14@examiner.com');
47
48
        insert into employee (id, name, birthday, email) values (42, 'Mariana', '2018-12-26', 'mscole15@bizjournals.com');
insert into employee (id, name, birthday, email) values (43, 'Sydney', '1985-09-21', 'sfrail16@woothemes.com');
       insert into employee (id, name, birthday, email) values (44, 'Roderick', '1999-06-20', 'rdunn17@miitbeian.gov.cn'); insert into employee (id, name, birthday, email) values (45, 'Almira', '1915-02-16', 'alaughren18@vimeo.com'); insert into employee (id, name, birthday, email) values (46, 'Rora', '1983-02-27', 'rfacer19@amazon.com'); insert into employee (id, name, birthday, email) values (47, 'Brita', '1997-12-07', 'bgainsford1a@nih.gov');
52
        insert into employee (id, name, birthday, email) values (48, 'Blinny', '1926-08-22', 'bfashion1b@usgs.gov'); insert into employee (id, name, birthday, email) values (49, 'Anna-maria', '1992-07-13', 'ahindmore1c@comsenz.com'); insert into employee (id, name, birthday, email) values (50, 'Moe', '1991-08-10', 'mlosemann1d@tuttocitta.it');
56
59
      SELECT * FROM employee;
60
61
        UPDATE employee
         SET name = 'Mia'
        WHERE id = 50:
64
65
        SELECT * FROM employee WHERE id = 50;
66
67
68
69
        UPDATE employee
        SET birthday = '1990-05-30'
 70
 72
73
        DELETE FROM employee
74
        WHERE id = 1;
76 SELECT * FROM employee;
```