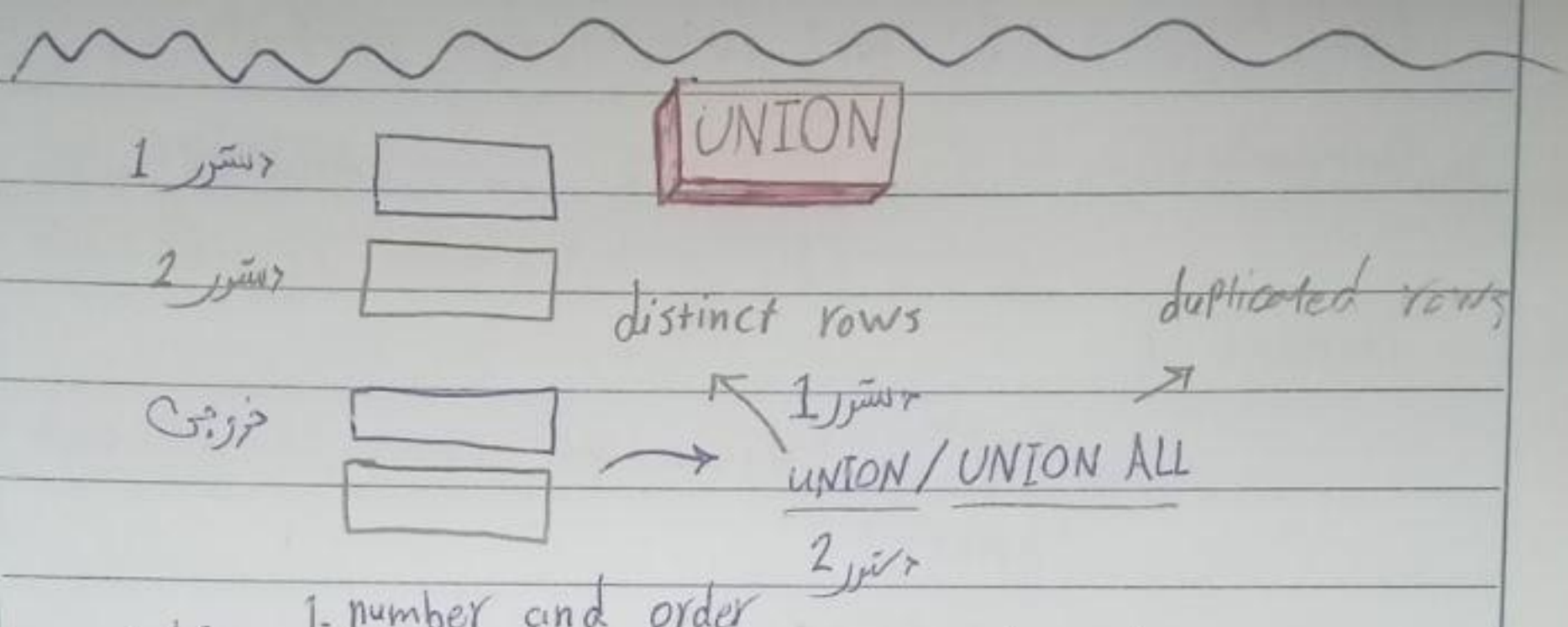
$ go test

$ go test -fuzz=Fuzz

$ " " " " -fuzztime 30s



شرایط:
1. number and order of the columns must be the same.
2. data types must be compatible.

SELECT
FROM
UNION
SELECT
FROM
ORDER BY ;

summary:

* use the to combine result sets of two or more queries.
* " " " "
" " " but retain the duplicate rows.

SELECT

FROM

INTERSECT

Subject :

Date :

~~INTERSECT~~

SELECT

FROM

EXCEPT

Common Table Expression

CTE

to simplify complex queries.

enhance the readability of a moplex query by breaking it down into smaller and reusable parts.

*unique ← اضافه ی تعریف از داخلش ارث می گیرد.

```
WITH cte_name (col1, col2, ..) AS (   → ابتدای CTE
    --CTE query        Joins, WHERE, ...
    SELECT ...
)
    --main query using CTE
SELECT ...
FROM cte_name;   → Refrence it by its name.
```

CTE این ~ WHERE نمی خواد. بزنی.

پس CTE کمانه ...

Bahare-danesh ask

Table film

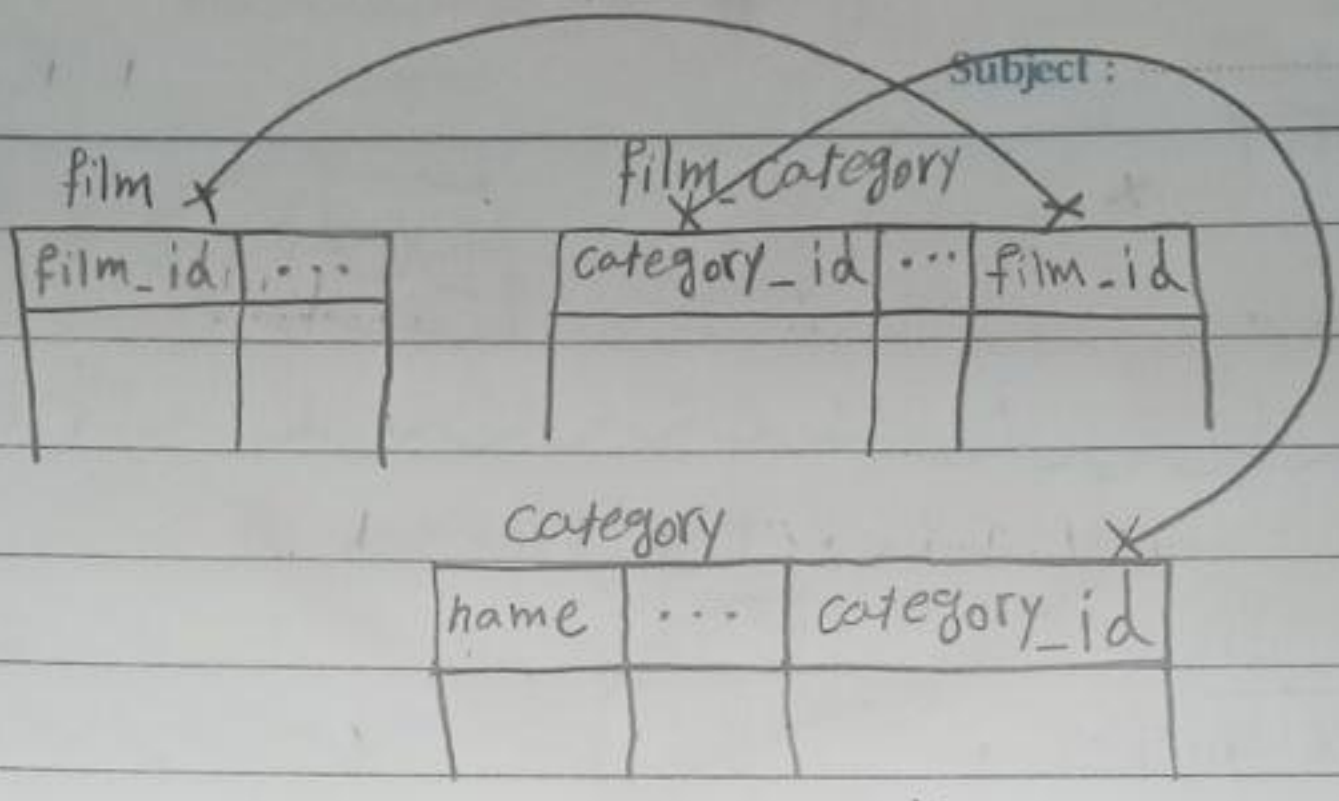
title	length	category	...
		Action	
		dram	
		Action	
		⋮	

find title and length of the "Action" films :)

Basic CTE example

Date : / /

Subject :



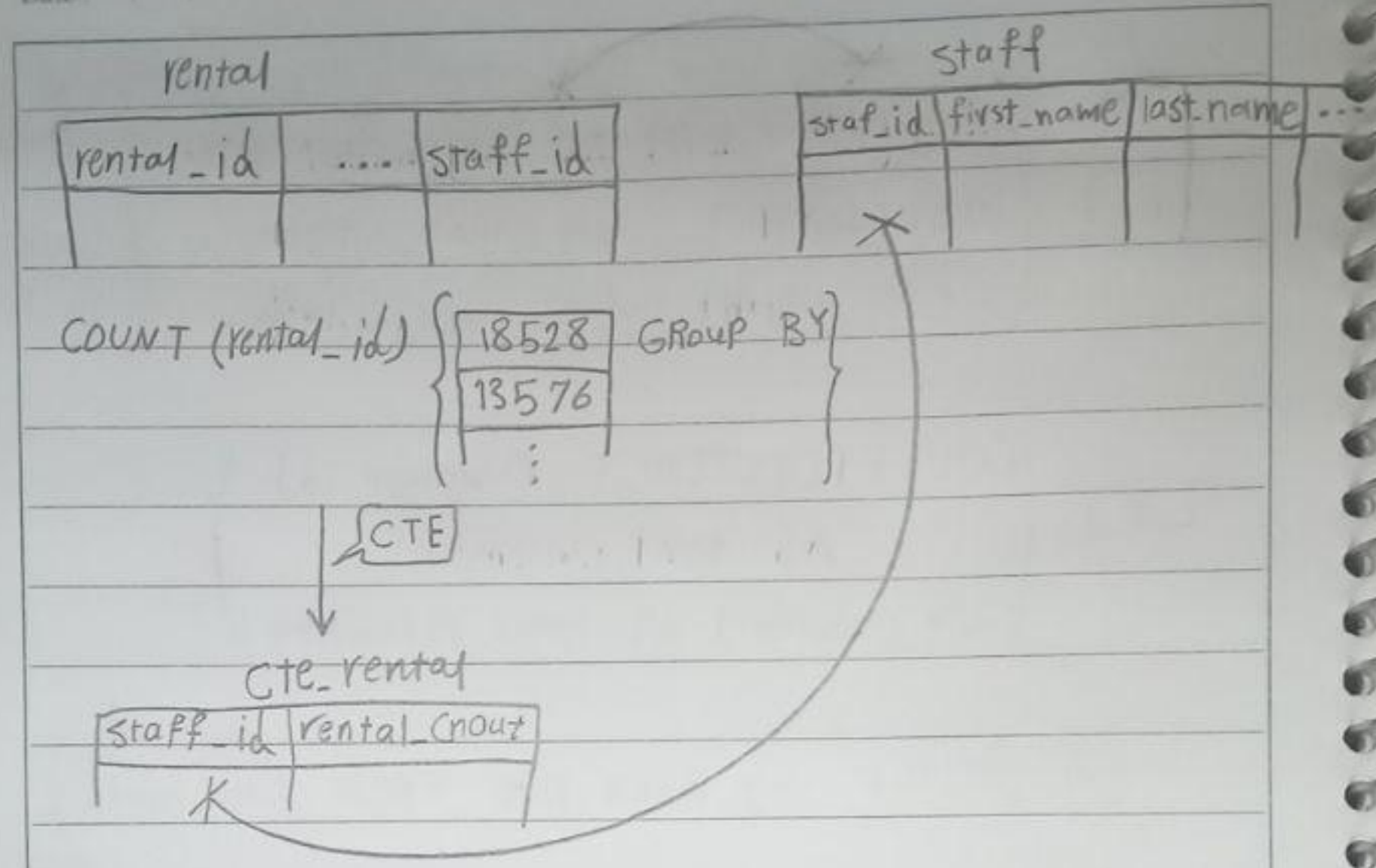
film & film_category (film_id) & category (category_id)

```
WITH ACtion_flims AS (
    SELECT
        f.title
        f.length
    FROM
        film f
        INNER JOIN film_category fC USING (film_id)
        INNER JOIN Category c USING (category_id)
    WHERE
        c.name = 'Action'
    )
SELECT * FROM Action_films;
```

JOIN a CTE with table example

Date : / /

Subject :



CTE

```
WITH cte_rental AS (
    SELECT staff_id, COUNT(rental_id) rental_count
    FROM rental GROUP BY staff_id )
```

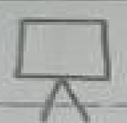
use cte

```
SELECT s.staff_id, first_name , last_name , rental_count
FROM staff s
    INNER JOIN cte_rental USING (staff_id);
```

Bahare danesh asl

Multiple CTEs

Date :
Subject :

 (AVG (rental_rate) AS avg_rental_rate,
MAX (length) AS max_length,
MIN (length) AS min_length)

 (COUNT (DISTINCT customer_id)
AS total_customers,
SUM (amount) AS total_Payments)

 (SELECT avg_rental_rate FROM film_stats)

WITH film_stats AS (
SELECT  FROM Film), } cte 1
customer_stats AS (
SELECT  FROM Payment) } cte 2
-- main query using the CTEs.
SELECT ROUND ( ,2) AS avg_film_rental_rate,
use cte 1 { (SELECT max_length From film_stats) AS max_film_length,
(" min_ " ") " min_
use cte 2 { (SELECT total_customers FROM customer_stats) AS total_customers
SELECT " _payments " ~~[illegible]~~ customer_ ") " " _Payments

Bahare danesh asl

Date : / /

CTE advantages

Subject :

- improve readability.
- Ability to create recursive queries
- use in conjuction with window functions.