**Assignment 10**

**Utilize a subquery to find customers who have placed orders above the average order value, and write a UNION query to combine two SELECT statements with the same number of columns.**

**Part 1: Subquery to Find Customers Who Have Placed Orders Above the Average Order Value**

To find customers who have placed orders above the average order value, we can use a subquery to calculate the average order value and then use this value to filter the customers.

**Query**

SELECT DISTINCT customers.customer\_id, customers.name, customers.email

FROM customers

INNER JOIN orders ON customers.customer\_id = orders.customer\_id

WHERE orders.total\_amount > (

SELECT AVG(total\_amount)

FROM orders

);

**Explanation**

* The subquery (SELECT AVG(total\_amount) FROM orders) calculates the average order value from the orders table.
* The outer query joins the customers and orders tables on customer\_id and filters the orders where the total\_amount is greater than the average value.
* DISTINCT is used to ensure that each customer appears only once in the result set.

**Part 2: UNION Query to Combine Two SELECT Statements with the Same Number of Columns**

To combine two, SELECT statements with the same number of columns, we can use the UNION operator. The UNION operator combines the result sets of two or more SELECT statements, removing duplicates. If you want to include duplicates, use UNION ALL.

**Example Scenario**

Let's assume we have two tables: customers\_2023 and customers\_2024, each with columns customer\_id, name, and email. We want to combine these into a single result set.

**Query**

SELECT customer\_id, name, email

FROM customers\_2023

**UNION**

SELECT customer\_id, name, email

FROM customers\_2024;

**Explanation**

* The first SELECT statement retrieves customer\_id, name, and email from the customers\_2023 table.
* The second SELECT statement retrieves the same columns from the customers\_2024 table.
* The UNION operator combines the results, ensuring each row is unique.

**Using UNION ALL (If You Want to Include Duplicates)**

SELECT customer\_id, name, email

FROM customers\_2023

**UNION ALL**

SELECT customer\_id, name, email

FROM customers\_2024;

**Summary**

* The subquery finds customers who have placed orders with a total amount greater than the average order value.
* The UNION query combines the results from two SELECT statements, ensuring each row is unique (use UNION ALL if duplicates are acceptable).