Exercise 6 - SQL NULL Functions

1. Show all employees with their salary. If salary is NULL, display 0

```sql
SELECT
    employee_id, name,
    IFNULL (salary, 0) AS salary_with_default
FROM employees;
```

employee_id	name	Salary_with_dy_ault
1	Alice	5000
2	Bob	0
3	Chalie	7000
4	Dana	0

2. Show employee names with their department. If department is NULL, show "Not Assigned".

```sql
SELECT employee_id, name,
    COALESCE (department, 'Not Assigned') AS department_name
FROM employees;
```

employee_id	name	department_name
1	Alice	HR
2	Bob	IT
3	Chalie	Not Assigned
4	Dana	Finance

3. Find orders with NULL customer_id using ISNULL().

```sql
SELECT order_id, customer_id
FROM orders
WHERE ISNULL (customer_id);
```

order_id	Customer_id
103	NULL

4. show all orders If delivery_date is Null, show 'Pending'
SELECT order_id, customer_id
IFNULL (delivery_date, 'Pending') AS delivery_status
FROM orders;

Order_id	Customer_id	delivery-status
101	201	2024-12 - 01
102	202	Pending
103	NULL	2024-12-03

5. show all students and their grades. Replace NULL with 0.
SELECT student_id, name,
    IFNULL (grade, 0) AS final_grade
FROM students;

student_id	name	final_grade
1	Ethan	85
2	Maya	0
3	Olivia	90

6. Count students who haven't been graded.
SELECT COUNT(* AS not_graded_count
FROM students
WHERE grade ISNULL;

not graded_count
1

7. Show product name, price, and final price after discount
(assume 0 if discount is NULL)

SELECT product_id, name,
    price - IFNULL (discount, 0) As final_price
FROM products;

product_id	name	final price	
501	Keyboard	25	
502	Mouse	10	
503	Monitor	100 &	

8. Count how many customers have no email.
SELECT COUNT(*) AS missing_email_count
FROM Customers
WHERE email IS NULL;

missing_email_count
2

9. Show all customers with email. If NULL, display no email.
SELECT customer_id, name,
    IFNULL (email, 'No Email') AS email_display
FROM customers;

Customer_id	name	email_display
1	Linda	No Email
2	Joseph	Joseph@mail.com
3	NTa	No Email

10. Show payment details with method replaced by "unknown" if Null

SELECT payment-id,
    IFNULL (method, 'Unknown') As method_display,

    status

FROM payments;

payment_id	method_display	status
301	credit	NULL
302	Paypal	Success
303	Unknown	Failed

11. ~~Show items and their quantity (0 if Null)~~
~~SELECT emp-id,~~

11. Show items and their quantity (0 if NULL)

SELECT item-id, item-name,
    IFNULL (quantity, 0) As quantity_checked

FROM inventory;

item_id	item-name	quantity_checked
1	Pen	0
2	Notebook	150
3	Eraser	0

12. Show employee ID and the first available value among bonus - commission

SELECT emp_id
    COALESCE (bonus, commission, 0) As first_available_record

FROM employees-extra;

emp-id	first_available_record
1	300
2	100
3	0

13. Count classes that dont have a room assigned.
```sql
SELECT COUNT(*) AS no_room_count
FROM classes
WHERE room IS NULL;
```

no_room_count
2

14. Show attendance records with status. Replace NULL with 'Not Marked'

```sql
SELECT student_id, date,
    COALESCE (status, 'Not Marked') AS attendance_status
FROM attendance;
```

student_id	date	attendance_status
1	2025-04-01	Not Marked
2	2025-04-01	Present
3	2025-04-01	Absent

15. Show account ID, account_type (or 'Unknown') and balance (or 0)

```sql
SELECT account_id,
    COALESCE (account_type, 'Unknown') AS type_display,
    IFNULL (balance, 0) AS balance_checked
FROM Bank_accounts;
```

account_id	type_display	balance_checked
A1	Savings	0
A2	Current	5000
A3	Unknown	2000