EXERCISE 6: Null Functions

Question 1: Show all employees with their Salary If salary is Null display 0

```
SELECT Employee_id, Name,
    IFNULL(Salary, 0) AS Salary_with_default
FROM Employees;
```

Employee_id	Name	Salary_with_default
1	Alice	5000
2	BOB	0
3	Charlie	7000
4	Dana	0
5		

Question2: Show employee names with their department. If department is Null show `Not Assigned`

```
SELECT Employee_id, name,
    IFNull(Department, `Not.Assigned')
    AS Department_Name
FROM Employees;
```

Employee_id	Name	Department_name
1	Alice	HR
2	BOB	IT
3	Charlie	Not Assigned
4	Dana	Finance

Question 3 : Find orders with Null customer_id Using
Isnull().

```sql
SELECT Orders_id, Customer_id
From Orders
WHERE Customer_id Is Null;
```

Order_id	Customer_id
103	Null

Question 4 : Show all orders. If delivery date Is null
Show Pending.

```sql
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

Question 5 : Show all students and their grades
Replace Null with 0

```sql
SELECT Student_id, Name
    IFNULL( GRADE, 0) As final Grades
From Students;
```

Student id	Name	final Grade	
1	Ethan	85	
2	Maya	0	
3	Olivia	90	

Question 6 : Count student who havent been
graded

SELECT Count (Student_id)
       AS Not_graded_Count
From Students
WHERE Grade Is Null;

Not Graded Count
1

Question 7 : Show product name, price, and final
price after discount (Assume 0
if discount is Null).

SELECT Product_id, Name,
       Coalesce (Price - Discount, 0)
       As Final_price
From Products;

Product_id	Name	Final Price
501	keyboard	25
502	Mouse	10
503	Monitor	100

Question 8 : Count how many Customers have no email

```sql
SELECT Count (Customer_id)
       As Missing_email_count
From Customers
WHERE Email Is null;
```

Missing email count
2

Question 9 : Show all customers with email. If Null display `No_Email`.

```sql
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	Nia	No email

Question 10 : Show payment details with method replaced by `unknown` If Null

```sql
SELECT Payment_id,
       IF Null ( Method, `Unknown`)
       AS Method_display,
       IF Null (Status, `Unknown`)
       AS status_display
FROM Payments;
```

Payment_id	Method_display	Status display
301	Credit	Unknown
302	PayPal	Success
303	Unknown	Failed

Question 11: Show items & their Quantity (01 Null)

```
SELECT Item_id, item_name,
        IFNull (Quantity, 0)
        As Quantity_Check
FROM Inventory;
```

Item_id	item_name	Quantity Check
1	Pen	0
2	Notebook	150
3	Eraser	0

Question 12: Show employee ID & the first available value among bonus or Commission

```
SELECT Employee_ID,
        Coalesce (Bonus, Commision)
        As First_available_reward
FROM Employees_Extra;
```

Employee_id	First_available_reward
1	300
2	100
3	

Question 13 : Count Classes that don't have a room
assigned

```sql
SELECT Count ( Class_id )
        As no_room_count
From Classes
WHERE Room Is Null;
```

No_room_Count
2

Question 14 : Show attendance records with Status
Replace Null with `Not Marked`

```sql
SELECT Student_id, date,
    IF Null ( status, `Not Marked`)
    As Attendance_Status
From Attendance;
```

Student_id	date	Attendance_Status
1	2025-05-01	Not Marked
2	2025-04-01	Present
3	2025-06-01	Absent

Question 15 : Show account ID, Account type (or
Unknown') and balance (or 0)

```sql
SELECT Account_id,
    Coalesce ( Account type, `d) unknown')
    AS Type_display,
    IF Null ( balance, 0 ) AS Balanced_Checked
From Bank_Accounts;
```

Account_id	Type_display	Balance Checked
A1	Savings	0
A2	Current	5000
A3	Unknown	2000

Question 16: Show all projects with a start date
If start date is null display `TBD`

```
SELECT Project_id, title,
     Coalesce (CAST ( start_date AS
     VARCHAR), `TBD`)
     AS Start_display
From Projects;
```

Project_id	title	Start_display
1	Website revamp	2025-01-10
2	Mobile App	TBD
3	Data Migration	TBD

Question 17: Display reviews showing comment
(or `No comment`) and rating
(or 0)

```
SELECT Review_id, Product_id,
     IFNull (Comment, `No comment`)
     AS Comment_display,
     IFNull (Rating, 0)
     AS Rating_display
From Reviews;
```

Review_id	Product_id	Comment display	Rating display
1	501	Great product	4
2	502	No comment	0
3	503	Works fine	3

Question 18 : Show the supplier contact number Use
COALESCE (Phone, Alt_phone, No contact)

SELECT Supplier_id, name,
    Coalesce (Phone, Alt_phone, `No Contact')
    As Contact Number
FROM Suppliers;

Supplier_id	Name	Contact Number
1	Global Goods	123456789
2	Best Supplies	987654321
3	Value Source	No Contact

Question 19 : Show all users & their preferences. Replace all
    Nulls with defaults
    : Theme → "Light"
    : Language → "English"
    : Time zone → "UTC"

SELECT User_id,
    IfNull (Theme, `Light') AS Theme_set,
    IfNull (Language, `English') AS Language_Set,
    IfNull (Timezone, `UTC") AS Time zone_Set
FROM User_settings;

Useir id	Theme set	Language Set	time zone Set
1	Light	English	UCT
2	Dark	English	UCT+1
3	Light	English	UCT

Question 20 : Show maintenance log with
- Issue ~ ~~Deppult~~ Default to
Unknown Issue
- Technical → Default to `Not Assigned`

```
SELECT Record_id, Machine_id,
    IFNull ( Issue, `Unknown Issue`)
    As Issue_log,
    IFNull (Technician, `Not Assigned`)
    As Technician_Name
From Maintenance;
```

Record id	Machine_id	Issue log	Technician Name
1	M101	Overheating	Not Assigned
2	M102	Unknown Issue	Not Assigned
3	M103	Jammed	Alex