

Exercise 6 (NULL Functions)

Q1 (Table 1: Employees)

```
SELECT employee-id, name,  
       IFNULL (Salary, 0) AS salary-with-default  
FROM Employees;
```

output

employee-id	name	salary-with-default
1	Alice	5000
2	Bob	0
3	charlie	7000
4	Dana	0

Q2 (Table 1: Employees)

```
SELECT employee-id, name,  
       IFNULL (department, 'Not Assigned') AS department_name  
FROM Employees;
```

output

Employee-id	Name	department_name
1	Alice	HR
2	Bob	IT
3	charlie	Not Assigned
4	Dana	Finance

Q3 (Table 2: Orders)

```
SELECT order-id, customer-id  
FROM orders  
WHERE customer-id IS NULL;
```

Output:

order-id	customer-id
103	NULL

Q4 (Table 2: orders)

```
SELECT order-id, customer-id,  
FROM orders  
IFNULL (delivery-date, 'Pending') AS delivery-status  
FROM orders
```

Output:

order-id	customer-id	delivery-status
101	201	2024-12-01
102	202	Pending
103	NULL	2024-12-03

Q5 (Table 3: Students)

```
SELECT student-id, name  
IFNULL (grade, 0) AS final-grade  
FROM students;
```


Output:

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

Q6 (Table 3: Students)

```
SELECT COUNT(*) AS not_graded_count  
FROM Students  
WHERE grade IS NULL;
```

Output: 1 since there is only one (1) student with a NULL and that student is Maya

Q7 (Table 4: Products)

```
SELECT product_id, name,  
       price - IFNULL(discount, 0) AS final_price  
FROM Products;
```

Output:

Product_id	name	final_price
501	keyboard	25
502	Mouse	10
503	Monitor	100

Q8 (Table 5: Customers)

```
SELECT COUNT(*) AS missing_email_count  
FROM Customers  
WHERE email IS NULL;
```

Output: 2 since Linde & Nia have no information

Q9 (Table 5: Customers)

```
SELECT customer_id, name,  
       IFNULL(email, 'No Email') AS email_display  
FROM Customers;
```

outputs:

customer_id	name	email_display
1	Linda	No Email
2	Joseph	joseph@mail.com
3	Nia	No Email.

Q10 (Table 6: Payments)

```
SELECT payment_id, IFNULL(method, 'unknown') AS method_display,  
       Status  
FROM Payments;
```

output:

payment_id	method_display	Status
301	Credit	Null
302	PayPal	Success
303	unknown	Failed

Q11 (Table 7: Inventory)

```
SELECT item_id, item_name,  
       IFNULL(quantity, 0) AS quantity_checked  
FROM Inventory;
```

output:

item_id	item_name	quantity - checked
1	Pen	0
2	Notebook	150
3	Eraiser	0

Q12 (table 8: Employee - Extra)

```
SELECT emp-id,  
       COALESCE(bonus, commission) AS first-available-reward  
FROM Employee - Extra;
```

output

emp-id	first-available-reward
1	300
2	100
3	NULL

Q13 (table 9: classes)

```
SELECT COUNT(*) AS no-room-count  
FROM classes  
WHERE room IS NULL;
```

output: 2 Since maths & English have null as no data on rooms

Q14 (table 10: Attendance)

```
SELECT student_id, date,  
       IFNULL(status, 'Not Marked') AS attendance_status  
FROM Attendance;
```

Output:

student_id	date	attendance_status
1	2023-04-01	Not Marked
2	2023-04-01	Present
3	2023-04-01	Absent

Q15 (table 11: Bank Accounts)

```
SELECT account_id,  
       IFNULL(account_type, 'unknown') AS type_display,  
       IFNULL(balance, 0) AS balance_checked  
FROM Bank Accounts;
```

Output:

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

Q16 (table 12: Projects)

```
SELECT project_id, title,  
       IFNULL(start_date, 'TBD') AS start_display  
FROM Projects;
```

Output

product-id	title	Start - display
1	Website Revamp	2025-01-10
2	Mobile App	TBD
3	Data Migration	TBD

Q17 (Table 13: Reviews)

```
SELECT review-id, product-id,  
       IFNULL(comment, 'No comment') AS comment-display,  
       IFNULL(rating, 0) AS rating-display  
FROM Reviews;
```

Output

review-id	product-id	comment-display	rating-display
1	S01	Great product	4
2	S02	No comment	0
3	S03	Works fine	3

Q18 (Table 14: Suppliers)

```
SELECT Supplier-id, name,  
       COALESCE(phone, alt-phone, 'No Contact') AS contact-number  
FROM Suppliers;
```

Outputs

supplier-id	name	contact-number
1	Global Supply	123456789
2	Best Supplies	987654321
3	ValueSource	No Contact

Q19 (Table 15: User-Settings)

```
SELECT user-id,  
       IFNULL(theme, 'Light') AS theme-set,  
       IFNULL(language, 'English') AS language-set,  
       IFNULL(timezone, 'UTC') AS timezone-set  
FROM User-Settings;
```

Output:

user-id	theme-set	language-set	timezone-set
1	Light	English	UTC
2	Dark	English	UTC +1
3	Light	English	UTC

Q20 (Table 16: Maintenance)

```
SELECT record-id, machine-id,  
       IFNULL(issue, 'unknown issue') AS issue-log,  
       IFNULL(technician, 'Not Assigned') AS technician-name  
FROM Maintenance;
```

Output:

record-id	Machine-id	issue-log	technician-name
1	M101	overheating	Not Assigned
2	M102	Unknown	Not Assigned
3	M103	Jammed	Alex