

Exercise 6 - Advanced SQL

Question 1

Select employee_id, name,
COALESCE (salary, 0) ~~as~~ As salary-with-default
from employee;

employee_id	name	department	Salary
1	Alice	X	3000
2	Bob		0
3	Charlie		7000
4	Daniel		0

Question 2

Select employee_id,
name,
COALESCE (department, 'Not Assigned') ^{As}
department_name
from employee;

employee_id	name	department
1	Alice	HR
2	Bob	IT
3	Charlie	Not assigned
4	Daniel	Finance

Question 3

select order_id, customer_id

from orders

where customer_id IS NULL

order_id	customer_id
103	NULL

Question 4.

select order_id, customer_id,

coalesce (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

select student_id, name,

coalesce (grade, 0)

from students;

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

Question 6

Select Count(*) As Not_graded_count
from students
where grade IS NULL;

Not_graded_count

1

Question 7

Select product_id, name,
price - COALESCE(discount, 0) As final_price
from products;

product_id	name	final_price
S01	keyboard	25
S02	mouse	15
S03	monitor	50

Question 8

Select Count(*) As missing_email_count
from customers
where email IS NULL;

missing_email_count

2

Question 9.

select customer_id, name,

Coalesce (email, 'No email') as email_display
from customers;

customer_id	name	email_display
1	Linda	No email
2	Joseph	Joseph@email.com
3	Nic	No email

Question 10

select payment_id, status,

Coalesce (method, 'unknown') as method_display
from payments;

payment_id	method_display	status
301	credit	Null
302	Paypal	Success
303	unknown	failed

Question 11

select item_id, item_name,

Coalesce (quantity, 0) as quantity_checked
from inventory;

Item id	Item name	quality-checked
1	Pen	100
2	notebook	150
3	Eraser	0

Question 12

Select emp_id,
Coalesce (bonus, Commission) as ^{first available} reward
from Employee-Extra

emp_id	first-available reward
1	300
2	100
3	0

13. Select Count(*) as no room count,
from classes
where room IS NULL;

no room count
2

14. Select Student_id, date,
Coalesce (status, 'Not Marked') as
attendance-status from Attendances;

student_id	date	attendance status
1	2025-04-01	Not Marked
2	2025-04-01	Presented
3	2025-04-01	Present

Question 15

select account_id,
 Coalesce (account_type, 'Unknown') as display_type,
 Coalesce (balance, 0) as balance-checked

account_id	type	display	balance check
A1	savings		0
A2	current		5000
A3	unknown		2000

Question 16

select project_id, title,
 Coalesce (state_date, 'TBD') as start-date
 from projects

project_id	title	start-date
1	website Revamp	2025-01-10
2	mobile APP	TBD
3	Data Migration	TBD

Question 17

select review-id, product-id
 Coalesce (Comment, 'No Comment') as
 Comment-display,
 Coalesce (rating, 0) as rating-display
 from Reviews;

Review-id	product-id	comment-display	rating-display
1	S01	Great Product	4
2	S02	No comment.	0
3	S03	works fine	3

Question 18

select supplier-id, name,
 Coalesce (^{phone}alt-phone, 'No Contact')
 as Contact-Number,
 from Suppliers;

Supplier-id	name	Contact-Number
1	Global Efood	123456789
2	Best Supplier	987654321
3	ValueSource	0

Question 19

Select user_id,
 Coalesce (theme, 'Light') As theme_set,
 Coalesce (language, 'English') As language_set,
 Coalesce (timezone, 'UTC') As timezone_set
 from user_settings;

user_id	theme_set	language_set	timezone_set
1	light	english	UTC
2	Dark	English	UTC+1
3	light	english	UTC

Question 20

Select
 record_id,
 machine_id
 Coalesce (issue, 'unknown issue') as issue_log,
 Coalesce (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	M102	jammed	Alex