

SQL Assignment

Quick note:

1. Question numbers are inside the image.
2. The images are in descending order, please read from last if you want to go from 1,2,3 and so on.

```
-- 20. Add new payments manually for an existing customer.

INSERT INTO payments (customerNumber, checkNumber, paymentDate, amount)
VALUES (124, '456DEF', '2025-01-2', 5000);
```

```
-- 20. Add new payments manually for an existing customer.

INSERT INTO payments (customerNumber, checkNumber, paymentDate, amount)
VALUES (124, '456DEF', '2025-01-2', 5000);
```

Name	Value
Updated Rows	1
Execute time	0.022s
Start time	Fri May 23 13:46:55 NPT 2025
Finish time	Fri May 23 13:46:55 NPT 2025
Query	INSERT INTO payments (customerNumber, checkNumber, paymentDate, amount) VALUES (124, '456DEF', '2025-01-2', 5000)

-- 19. Delete all payments below 20,000.

● DELETE FROM payments

WHERE amount <=20000

;

Statistics 1 X

Name	Value
Updated Rows	78
Execute time	0.015s
Start time	Fri May 23 13:34:32 NPT 2025
Finish time	Fri May 23 13:34:32 NPT 2025
Query	DELETE FROM payments
	WHERE amount <=20000

```
-- 18. Update the country of a customer (use any one record).

● SELECT customerName, country, customerNumber
  FROM customers;
● UPDATE customers
  SET country = 'Belgium'
  WHERE customerNumber = 103
;
```

Name	Value
Updated Rows	1
Execute time	0.009s
Start time	Fri May 23 13:31:13 NPT 2025
Finish time	Fri May 23 13:31:13 NPT 2025
Query	UPDATE customers SET country = 'Belgium' WHERE customerNumber = 103

```
-- view customerOrderSummary|
SELECT * FROM customerOrderSummary;
```

customers(+) 1 X

SQL `SELECT * FROM customerOrderSummary` Enter a SQL expression to filter results (use Ctrl+Space)

	AZ customerName	AZ completeAddress	123 COUNT(o.orderNumber)
1	Atelier graphique	54, rue Royale, Nantes, , 44000, France	3
2	Signal Gift Stores	8489 Strong St., Las Vegas, NV, 83030, USA	3
3	Australian Collectors, Co.	636 St Kilda Road, Melbourne, Victoria, 3004, Australia	5
4	La Rochelle Gifts	67, rue des Cinquante Otages, Nantes, , 44000, France	4
5	Baane Mini Imports	Erling Skakkes gate 78, Stavern, , 4110, Norway	4
6	Mini Gifts Distributors Ltd.	5677 Strong St., San Rafael, CA, 97562, USA	17
7	Blauer See Auto, Co.	Lyonerstr. 34, Frankfurt, , 60528, Germany	4
8	Mini Wheels Co.	5557 North Pendale Street, San Francisco, CA, 94217, USA	3
9	Land of Toys Inc.	897 Long Airport Avenue, NYC, NY, 10022, USA	4
10	Euro+ Shopping Channel	C/ Moralzarzal, 86, Madrid, , 28034, Spain	26
11	Volvo Model Replicas, Co	Berguvsvägen 8, Luleå, , S-958 22, Sweden	4
12	Danish Wholesale Imports	Vinbæltet 34, København, , 1734, Denmark	5
13	Saveley & Henriot, Co.	2, rue du Commerce, Lyon, , 69004, France	3
14	Dragon Souvenirs, Ltd.	Bronz Sok, Singapore, , 079903, Singapore	5
15	Muscle Machine Inc	4092 Furth Circle, NYC, NY, 10022, USA	4
16	Diecast Classics Inc.	7586 Pompton St., Allentown, PA, 70267, USA	4
17	Technics Stores Inc.	9408 Furth Circle, Burlingame, CA, 94217, USA	4
18	Handji Gifts & Co	106 Linden Road Sandown, Singapore, , 069045, Singapore	4
19	Herkku Gifts	Brehmen St. 121, Bergen, , N 5804, Norway	3
20	Daedalus Designs Imports	184, chaussée de Tournai, Lille, , 59000, France	2

Name	Value
Updated Rows	0
Execute time	0.025s
Start time	Fri May 23 13:20:19 NPT 2025
Finish time	Fri May 23 13:20:19 NPT 2025
Query	<pre>CREATE OR REPLACE VIEW customerOrderSummary AS SELECT c.customerName, CONCAT(IFNULL(addressLine1, ''), ', ', IFNULL(city, ''), ', ', IFNULL(state, ''), ', ', IFNULL(postalCode, ''), ', ', IFNULL(country, '')) AS completeAddress, COUNT(o.orderNumber) FROM customers c JOIN orders o ON c.customerNumber = o.customerNumber GROUP BY c.customerName, c.addressLine1, c.city, c.state, c.postalCode, c.country</pre>

Name	Value
Updated Rows	0
Execute time	0.025s
Start time	Fri May 23 13:20:19 NPT 2025
Finish time	Fri May 23 13:20:19 NPT 2025
Query	<pre>CREATE OR REPLACE VIEW customerOrderSummary AS SELECT c.customerName, CONCAT(IFNULL(addressLine1, ''), ', ', IFNULL(city, ''), ', ', IFNULL(state, ''), ', ', IFNULL(postalCode, ''), ', ', IFNULL(country, '')) AS completeAddress, COUNT(o.orderNumber) FROM customers c JOIN orders o ON c.customerNumber = o.customerNumber GROUP BY c.customerName, c.addressLine1, c.city, c.state, c.postalCode, c.country</pre>

-- 16. Find the creditLimit of each person, proportion of creditLimit of each person in each
 -- country. [Proportion of person in USA = creditLimit of that person / sum(creditLimit of all person in USA)]

```
WITH country_credit AS (
  SELECT c.customerNumber, c.customerName, c.country, c.creditLimit,
  SUM(c.creditLimit) OVER (PARTITION BY c.country) AS totalCountryCredit
  FROM customers c
)
SELECT customerNumber, customerName, country, creditLimit,
ROUND(creditLimit / totalCountryCredit, 4) AS creditProportion
FROM country_credit;
```

customers 1 X

WITH country_credit AS (SELECT c.customerNumber) Enter a SQL expression to filter results (use Ctrl+Space)

	123 customerNumber	A-Z customerName	A-Z country	123 creditLimit	123 creditProportion
1	114	Australian Collectors, Co.	Australia	117,300	0.2726
2	282	Souvenirs And Things Co.	Australia	93,300	0.2168
3	276	Anna's Decorations, Ltd	Australia	107,800	0.2505
4	333	Australian Gift Network, Co	Australia	51,600	0.1199
5	471	Australian Collectables, Ltd	Australia	60,300	0.1401
6	382	Salzburg Collectables	Austria	71,700	0.6128
7	452	Mini Auto Werke	Austria	45,300	0.3872
8	381	Royale Belge	Belgium	23,500	0.2273
9	314	Petit Auto	Belgium	79,900	0.7727
10	260	Royal Canadian Collectables, Ltd.	Canada	89,600	0.392
11	202	Canadian Gift Exchange Network	Canada	90,300	0.395
12	233	Québec Home Shopping Network	Canada	48,700	0.213
13	145	Danish Wholesale Imports	Denmark	83,400	0.4084
14	227	Heintze Collectables	Denmark	120,800	0.5916
15	311	Oulu Toy Supplies, Inc.	Finland	90,500	0.3167
16	334	Suominen Souvenirs	Finland	98,800	0.3457
17	186	Toys of Finland, Co.	Finland	96,500	0.3376
18	353	Reims Collectables	France	81,100	0.087
19	209	Mini Caravy	France	53,800	0.0577
20	242	Alpha Cognac	France	61,100	0.0655
21	250	Lyon Souvenirs	France	68,100	0.073

```

-- 15. Generate a report that shows total payment pending for each office.
-- What is "Payment Pending"?
-- => It usually means: Total Order Value - Total Payment Received
SELECT o.city AS officeName, o.state, o.country,
SUM(od.quantityOrdered * od.priceEach) - IFNULL(SUM(p.amount), 0) AS totalPendingPayment
FROM offices o
JOIN employees e
ON o.officeCode = e.officeCode
JOIN customers c
ON e.employeeNumber = c.salesRepEmployeeNumber
JOIN orders ord
ON c.customerNumber = ord.customerNumber
JOIN orderdetails od
ON ord.orderNumber = od.orderNumber
JOIN payments p
ON c.customerNumber = p.customerNumber
GROUP BY o.officeCode, o.city, o.state, o.country;

```

offices 1 X

SELECT city AS officeName, state, country, 123 totalPendingPayment

	Az officeName	Az state	Az country	123 totalPendingPayment
1	Paris	[NULL]	France	-231,820,580.94
2	San Francisco	CA	USA	-119,651,437.12
3	Sydney	[NULL]	Australia	-38,451,087.11
4	London	[NULL]	UK	-35,774,014.19
5	NYC	NY	USA	-28,008,966.41
6	Tokyo	Chiyoda-Ku	Japan	-12,865,639.32
7	Boston	MA	USA	-19,533,959.94

```

-- 14.. Generate a report that shows total sales(in amount) by each office using order details table and other essential tables.
SELECT o.city AS officeName, o.state, o.country,
SUM(od.quantityOrdered * od.priceEach) AS totalSales
FROM offices o
JOIN employees e
ON o.officeCode = e.officeCode
JOIN customers c
ON e.employeeNumber = c.salesRepEmployeeNumber
JOIN orders ord
ON c.customerNumber = ord.customerNumber
JOIN orderdetails od
ON ord.orderNumber = od.orderNumber
GROUP BY o.officeCode, o.city, o.state, o.country

```

offices 1 X

SELECT city AS officeName, state, country, 123 totalSales

	Az officeName	Az state	Az country	123 totalSales
1	Paris	[NULL]	France	3,083,761.58
2	San Francisco	CA	USA	1,429,063.57
3	Sydney	[NULL]	Australia	1,147,176.35
4	London	[NULL]	UK	1,436,950.7
5	NYC	NY	USA	1,157,589.72
6	Tokyo	Chiyoda-Ku	Japan	457,110.07
7	Boston	MA	USA	892,538.62


```

SELECT o.city AS officeName, o.state, o.country,
SUM(p.amount) AS totalPayments
FROM offices AS o
JOIN employees AS e
ON o.officeCode = e.officeCode
JOIN customers AS c
ON e.employeeNumber = c.salesRepEmployeeNumber
JOIN payments AS p
ON c.customerNumber = p.customerNumber
GROUP BY o.officeCode, o.city , o.state, o.country
;

```

[illegible]

```

SELECT o.officeCode , o.city,
COUNT(c.customerNumber ) AS totalCustomer
FROM offices AS o
JOIN employees AS e
ON o.officeCode = e.officeCode
JOIN customers AS c
ON e.employeeNumber = c.salesRepEmployeeNumber
GROUP BY o.officeCode , o.city
;

```

[illegible]

```
SELECT o.officeCode , o.city,
COUNT(e.employeeNumber) AS totalEmployees
FROM offices AS o
JOIN employees AS e
ON e.officeCode = o.officeCode
GROUP BY
o.officeCode, o.city
;
```

```
-- customer with the third highest credit limit
WITH RankedCustomers AS (
    SELECT
        customerName,
        creditLimit,
        RANK() OVER (ORDER BY creditLimit DESC) AS customerRank
    FROM customers
)
SELECT
    customerName,
```

customers 1 X

WITH RankedCustomers AS (SELECT customerName, creditLimit, RANK() OVER (ORDER BY creditLimit DESC) AS customerRank FROM customers)

	customerName	creditLimit	customerRank
1	Vida Sport, Ltd	141,300	3

```

-- 10. Find the rank of customer. [Customer with highest credit limit have 1 rank and Customer with lowest credit limit have highest rank].
-- Then, find the customer with the third highest credit limit.

SELECT
    customerName,
    creditLimit,
    RANK() OVER (ORDER BY creditLimit DESC) AS customerRank
FROM customers;

```

	customerName	creditLimit	customerRank
1	Euro+ Shopping Channel	227,600	1
2	Mini Gifts Distributors Ltd.	210,500	2
3	Vida Sport, Ltd	141,300	3
4	Muscle Machine Inc	138,500	4
5	AV Stores, Co.	136,800	5
6	Saveley & Henriot, Co.	123,900	6
7	Marta's Replicas Co.	123,700	7
8	L'ordine Souveniers	121,400	8
9	Heintze Collectables	120,800	9
10	Toms Spezialitäten, Ltd	120,400	10
11	Rovelli Gifts	119,600	11
12	La Rochelle Gifts	118,200	12
13	Australian Collectors, Co.	117,300	13
14	Scandinavian Gift Ideas	116,400	14
15	Land of Toys Inc.	114,900	15
16	Online Diecast Creations Co.	114,200	16
17	Amica Models & Co.	113,000	17
18	Kelly's Gift Shop	110,000	18
19	Anna's Decorations, Ltd	107,800	19
20	Collectable Mini Designs Co.	105,000	20
21	Corporate Gift Ideas Co.	105,000	20
22	Corrida Auto Replicas, Ltd	104,600	22
23	Dragon Souveniers, Ltd.	103,800	23

```

-- 9. Find all customers with a credit limit greater than average credit limit using WITH Clause.
-- WITH clause is used to define temporary tables or result sets within a query.

WITH AvgCredit AS (
    SELECT AVG(creditLimit) AS avgCredit
    FROM customers
)
SELECT
    customerName,
    creditLimit
FROM customers, AvgCredit
WHERE customers.creditLimit > avgCredit;

```

	customerName	creditLimit
1	Signal Gift Stores	71,800
2	Australian Collectors, Co.	117,300
3	La Rochelle Gifts	118,200
4	Baane Mini Imports	81,700
5	Mini Gifts Distributors Ltd.	210,500
6	Land of Toys Inc.	114,900
7	Euro+ Shopping Channel	227,600
8	Danish Wholesale Imports	83,400
9	Saveley & Henriot, Co.	123,900
10	Dragon Souveniers, Ltd.	103,800
11	Muscle Machine Inc	138,500
12	Diecast Classics Inc.	100,600
13	Technics Stores Inc.	84,600
14	Handji Gifts & Co	97,900
15	Herkku Gifts	96,800
16	Daedalus Designs Imports	82,900
17	La Corne D'abondance, Co.	84,300
18	Gift Depot Inc.	84,300
19	Osaka Souveniers Co	81,700

● -- 8. Find the name of the supervisor, job title of supervisor and total no. of supervisee using subquery. (With using Join operation)

```

SELECT
  CONCAT(s.firstName, ' ', s.lastName) AS supervisorName,
  s.jobTitle,
  COUNT(e.employeeNumber) AS totalSupervisees
FROM
  employees AS e
JOIN
  employees AS s ON e.reportsTo = s.employeeNumber
GROUP BY
  s.employeeNumber, s.lastName, s.firstName, s.jobTitle;

```

employees 1 X

SELECT CONCAT(s.firstName, ' ', s.lastName) AS supervisorName, s.jobTitle, COUNT(e.employeeNumber) AS totalSupervisees

	A-Z supervisorName	A-Z jobTitle	123 totalSupervisees
1	Diane Murphy	President	2
2	Mary Patterson	VP Sales	4
3	William Patterson	Sales Manager (APAC)	3
4	Gerard Bondur	Sale Manager (EMEA)	6
5	Anthony Bow	Sales Manager (NA)	6
6	Mami Nishi	Sales Rep	1

● -- 7. Find the name of the supervisor, job title of supervisor and total no. of supervisee using subquery. (With out using Join operation)

```

SELECT
  CONCAT(e.firstName, ' ', e.lastName) AS supervisorName,
  e.jobTitle,
  (
    SELECT COUNT(*) FROM employees AS sub
    WHERE sub.reportsTo = e.employeeNumber
  ) AS totalSupervisees
FROM employees AS e
WHERE e.employeeNumber IN(
  SELECT DISTINCT reportsTo
  FROM employees
  WHERE reportsTo IS NOT NULL
);

```

employees 1 X

SELECT CONCAT(e.firstName, ' ', e.lastName) AS supervisorName, e.jobTitle, (SELECT COUNT(*) FROM employees AS sub WHERE sub.reportsTo = e.employeeNumber) AS totalSupervisees

	A-Z supervisorName	A-Z jobTitle	123 totalSupervisees
1	Diane Murphy	President	2
2	Mary Patterson	VP Sales	4
3	William Patterson	Sales Manager (APAC)	3
4	Gerard Bondur	Sale Manager (EMEA)	6
5	Anthony Bow	Sales Manager (NA)	6
6	Mami Nishi	Sales Rep	1


```
● SELECT * FROM employees
  WHERE jobTitle LIKE '%Manager%';
```

customers 1 X

Enter a SQL expression to filter results (use Ctrl+Space)

	Az phone	Az addressLine1	Az addressLine2	Az city	Az state	Az postalCode	Az country	123 salesRepEmployeeNumber	123 creditLimit
1	7025551838	8489 Strong St.	[NULL]	Las Vegas	NV	83030	USA	1,166	71,800
2	4155551450	5677 Strong St.	[NULL]	San Rafael	CA	97562	USA	1,165	210,500
3	6505555787	5557 North Pendale Street	[NULL]	San Francisco	CA	94217	USA	1,165	64,600
4	2125557818	897 Long Airport Avenue	[NULL]	NYC	NY	10022	USA	1,323	114,900
5	2125557413	4092 Furth Circle	Suite 400	NYC	NY	10022	USA	1,286	138,500
6	2155551555	7586 Pompton St.	[NULL]	Allentown	PA	70267	USA	1,216	100,600
7	6505556809	9408 Furth Circle	[NULL]	Burlingame	CA	94217	USA	1,165	84,600
8	2035557845	149 Spinnaker Dr.	Suite 101	New Haven	CT	97823	USA	1,286	0
9	6175555555	4658 Baden Av.	[NULL]	Cambridge	MA	51247	USA	1,188	43,400
10	2035552570	25593 South Bay Ln.	[NULL]	Bridgewater	CT	97562	USA	1,323	84,300
11	2125551500	2678 Kingston Rd.	Suite 101	NYC	NY	10022	USA	1,286	76,400
12	6175558428	16780 Pompton St.	[NULL]	Brickhaven	MA	58339	USA	1,216	23,000
13	6175557555	7635 Spinnaker Dr.	[NULL]	Brickhaven	MA	58339	USA	1,188	68,700
14	6265557265	78934 Hillside Dr.	[NULL]	Pasadena	CA	90003	USA	1,166	90,700
15	3105552373	4097 Douglas Av.	[NULL]	Glendale	CA	92561	USA	1,166	11,000
16	7605558146	361 Furth Circle	[NULL]	San Diego	CA	91217	USA	1,166	105,000
17	6175559855	39323 Spinnaker Dr.	[NULL]	Cambridge	MA	51247	USA	1,216	123,700
18	9145554562	3758 North Pendale Street	[NULL]	White Plains	NY	24067	USA	1,323	102,700
19	5085559955	4575 Hillside Dr.	[NULL]	New Bedford	MA	50553	USA	1,188	94,500
20	6505551386	7734 Strong St.	[NULL]	San Francisco	CA	94217	USA	1,165	105,000
21	2015559350	7476 Moss Rd.	[NULL]	Newark	NJ	94019	USA	1,323	43,000
22	2155554695	782 First Street	[NULL]	Philadelphia	PA	71270	USA	1,188	81,100
23	2155554369	6047 Douglas Av.	[NULL]	Los Angeles	CA	91003	USA	1,166	57,700
24	6175559555	8616 Spinnaker Dr.	[NULL]	Boston	MA	51003	USA	1,216	41,900
25	6035558647	2304 Long Airport Avenue	[NULL]	Nashua	NH	62005	USA	1,216	114,200
26	6175558555	7825 Douglas Av.	[NULL]	Brickhaven	MA	58339	USA	1,188	70,700
27	2125558493	5905 Pompton St.	Suite 750	NYC	NY	10022	USA	1,286	67,500
28	2035551497	2440 Pompton St.	[NULL]	Allentown	PA	70267	USA	1,216	100,600

Refresh Save Cancel Export data 200 36

-- 2. Show the employees who report to VP Sales.

```

SELECT * FROM employees
WHERE jobTitle = "vp Sales";

```

employees 1 X

SELECT * FROM employees WHERE jobTitle = "vp Sales" Enter a SQL expression to filter results (use Ctrl+Space)

	123 employeeNumber	A-Z lastName	A-Z firstName	A-Z extension	A-Z email	A-Z officeCode	123 reportsTo	A-Z jobTitle
1	1,056	Patterson	Mary	x4611	mpatterso@classicmodelcars.com	1	1,002	VP Sales

Refresh Save Cancel Export data 200 1 1 row(s) fetched - 0.003s, on 2025-05-20 at 20:29:11

-- 1. Show all the customers whose creditLimit is greater than 20000

```

SELECT * FROM customers
WHERE creditLimit > 20000
LIMIT 20;

```

customers 1 X

SELECT * FROM customers WHERE creditLimit > 20000 Enter a SQL expression to filter results (use Ctrl+Space)

	123 customerNumber	A-Z customerName	A-Z contactLastName	A-Z contactFirstName	A-Z phone	A-Z address	Value X
1	103	Atelier graphique	Schmitt	Carine	40.32.2555	54, rue R	103
2	112	Signal Gift Stores	King	Jean	7025551838	8489 Str	
3	114	Australian Collectors, Co.	Ferguson	Peter	03 9520 4555	636 St Kil	
4	119	La Rochelle Gifts	Labrun	Janine	40.67.8555	67, rue d	
5	121	Baane Mini Imports	Bergulfsen	Jonas	07-98 9555	Erling Sk	
6	124	Mini Gifts Distributors Ltd.	Nelson	Susan	4155551450	5677 Str	
7	128	Blauer See Auto, Co.	Keitel	Roland	+49 69 66 90 2555	Lyonerstr	
8	129	Mini Wheels Co.	Murphy	Julie	6505555787	5557 Nor	
9	131	Land of Toys Inc.	Lee	Kwai	2125557818	897 Long	
10	141	Euro+ Shopping Channel	Freyre	Diego	(91) 555 94 44	C/ Moral	
11	144	Volvo Model Replicas, Co	Berglund	Christina	0921-12 3555	Berguvs	
12	145	Danish Wholesale Imports	Petersen	Jytte	31 12 3555	Vinbaelter	
13	146	Saveley & Henriot, Co.	Saveley	Mary	78.32.5555	2, rue du	
14	148	Dragon Souvenirs, Ltd.	Natividad	Eric	+65 221 7555	Bronz So	
15	151	Muscle Machine Inc	Young	Jeff	2125557413	4092 Fur	
16	157	Diecast Classics Inc.	Leong	Kelvin	2155551555	7586 Por	
17	161	Technics Stores Inc.	Hashimoto	Juri	6505556809	9408 Fur	
18	166	Handji Gifts & Co	Victorino	Wendy	+65 224 1555	106 Lind	
19	167	Herkku Gifts	Oeztan	Veysel	+47 2267 3215	Brehmer	
20	171	Daedalus Designs Imports	Rancé	Martine	20.16.1555	184, cha	

Refresh Save Cancel Export data 200 20