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**ID:** 23012064

# Assignment Solution

**Write a query that returns all orders happened in June 2021**

```
SELECT *  
FROM Sales.Orders  
WHERE orderdate BETWEEN '2021-06-01' AND '2021-06-30';
```

**Write a query that returns orders placed on the day before the last day of the month**

```
SELECT *  
FROM Sales.Orders  
WHERE orderdate = DATEADD(DAY, -1, EOMONTH(orderdate));
```

**Write a query that returns employees with last name containing the letter 'e' twice or more**

```
SELECT *  
FROM HR.Employees  
WHERE lastname LIKE '%e%e%';
```

**Write a query that returns orders with total value (qty \* unitprice) greater than 10000**

```
SELECT *  
FROM Sales.OrderDetails  
WHERE qty * unitprice > 10000;
```

**Write a query against the HR.Employees table that returns employees with a last name that starts with a lower case letter**

```
SELECT *
FROM HR.Employees
WHERE lastname COLLATE Latin1_General_BIN LIKE '[a-z]%' ;
```

## Explain the difference between the following two queries

- **Query 1:** Returns the count of orders for each employee where the order date is before May 1, 2022.

```
SELECT empid, COUNT(*) AS numorders
FROM Sales.Orders
WHERE orderdate < '20220501'
GROUP BY empid;
```

- **Query 2:** Returns the count of orders for each employee, but only includes employees whose latest order date is before May 1, 2022.

```
SELECT empid, COUNT(*) AS numorders
FROM Sales.Orders
GROUP BY empid
HAVING MAX(orderdate) < '20220501';
```

## Write a query that returns the three ship countries with the highest average freight for orders placed in 2021

```
SELECT TOP 3 shipcountry, AVG(freight) AS avgfreight
FROM Sales.Orders
WHERE YEAR(orderdate) = 2021
GROUP BY shipcountry
ORDER BY avgfreight DESC;
```

## Calculate row numbers for orders based on order date ordering (using order id as tiebreaker) for each customer separately

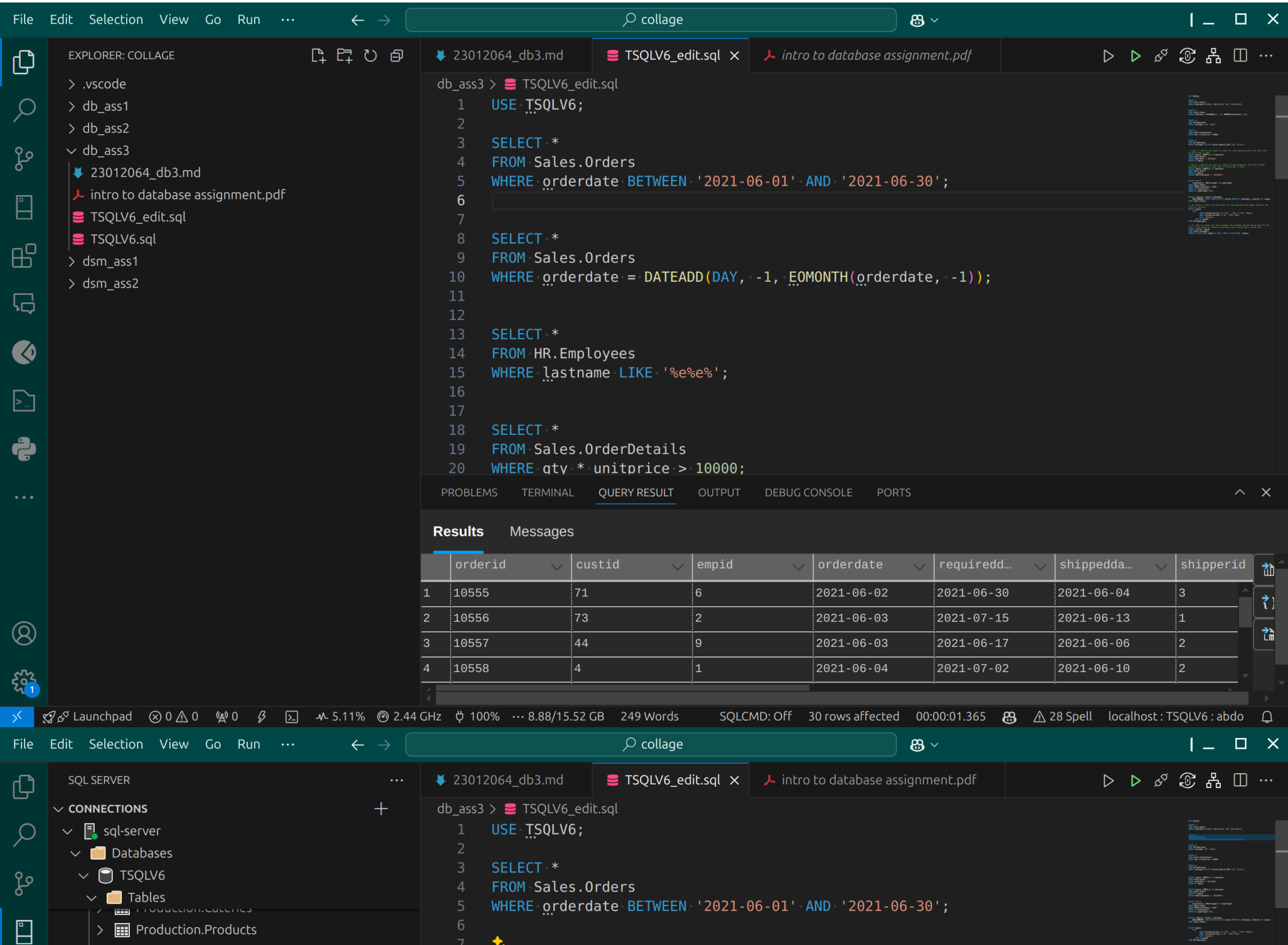
```
SELECT orderid, custid, orderdate,
       ROW_NUMBER() OVER (PARTITION BY custid ORDER BY orderdate, orderid)
FROM Sales.Orders;
```

Figure out and return for each employee the gender based on the title of courtesy

```
SELECT empid,
CASE
    WHEN titleofcourtesy IN ('Ms.', 'Mrs.') THEN 'Female'
    WHEN titleofcourtesy = 'Mr.' THEN 'Male'
    ELSE 'Unknown'
END AS gender
FROM HR.Employees;
```

Write a query that returns for each customer the customer ID and region and sort the rows in the output by region in ascending order having NULLs sorted last

```
SELECT custid, region
FROM Sales.Customers
ORDER BY CASE WHEN region IS NULL THEN 1 ELSE 0 END, region;
```



SQL SERVER

CONNECTIONS

sql-server

Databases

TSQLV6

Tables

Production.Products

Production.Suppliers

Sales.Customers

Sales.OrderDetails

Sales.Orders

Sales.Shippers

Stats.Scores

Stats.Tests

Dropped Ledger Tables

Views

QUERY HISTORY

No Queries Available

```
8 SELECT *
9 FROM Sales.Orders
10 WHERE orderdate = DATEADD(DAY, -1, EOMONTH(orderdate));

11
12
13 SELECT *
14 FROM HR.Employees
15 WHERE lastname LIKE '%e%e%';
16
17
18 SELECT *
19 FROM Sales.OrderDetails
20 WHERE qty * unitprice > 10000;
```

PROBLEMS TERMINAL QUERY RESULT OUTPUT DEBUG CONSOLE PORTS

Results Messages

	orderid	custid	empid	orderdate	requiredd...	shippedda...	shipperid
1	10268	33	8	2020-07-30	2020-08-27	2020-08-02	3
2	10294	65	4	2020-08-30	2020-09-27	2020-09-05	2
3	10342	25	4	2020-10-30	2020-11-13	2020-11-04	2
4	10368	20	2	2020-11-29	2020-12-27	2020-12-02	2

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SQL SERVER

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sql-server

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Sales.Shippers

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Stats.Tests

Dropped Ledger Tables

Views

QUERY HISTORY

No Queries Available

```
db_ass3 > TSQLV6_edit.sql
1 USE TSQLV6;
2
3 SELECT *
4 FROM Sales.Orders
5 WHERE orderdate BETWEEN '2021-06-01' AND '2021-06-30';
6
7
8 SELECT *
9 FROM Sales.Orders
10 WHERE orderdate = DATEADD(DAY, -1, EOMONTH(orderdate));
11
12
13 SELECT *
14 FROM HR.Employees
15 WHERE lastname LIKE '%e%e%';
16
17
18 SELECT *
19 FROM Sales.OrderDetails
20 WHERE qty * unitprice > 10000;
```

PROBLEMS TERMINAL QUERY RESULT OUTPUT DEBUG CONSOLE PORTS

Results Messages

	empid	lastname	firstname	title	titleofco...	birthdate	hiredate
1	4	Peled	Yael	Sales Represen...	Mrs.	1957-09-19	2021-05-03
2	5	Mortensen	Sven	Sales Manager	Mr.	1975-03-04	2021-10-17

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SQL SERVER

CONNECTIONS

sql-server

Databases

TSQLV6

Tables

Production.Products

Production.Suppliers

Sales.Customers

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QUERY HISTORY

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9 FROM Sales.Orders
10 WHERE orderdate = DATEADD(DAY, -1, EOMONTH(orderdate));
11
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13 SELECT *
14 FROM HR.Employees
15 WHERE lastname LIKE '%e%e%';
16
17
18 SELECT *
19 FROM Sales.OrderDetails
20 WHERE qty * unitprice > 10000;
21
22
23 SELECT *
24 FROM HR.Employees
25 WHERE lastname COLLATE Latin1_General_BIN LIKE '[a-z]%';
```

PROBLEMS TERMINAL QUERY RESULT OUTPUT DEBUG CONSOLE PORTS

Results Messages

	orderid	productid	unitprice	qty	discount
2	10417	38	210.80	50	0.000
3	10424	38	210.80	49	0.200
4	10865	38	263.50	60	0.050

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SELECT empid,

...

CASE

WHEN titleofcourtesy IN ('Ms.', 'Mrs.') THEN 'Female'

WHEN titleofcourtesy = 'Mr.' THEN 'Male'

ELSE 'Unknown'

PROBLEMS

TERMINAL

QUERY RESULT

OUTPUT

DEBUG CONSOLE

PORTS

Results

Messages

	orderid	custid	orderdate	rownum
1	10643	1	2021-08-25	1
2	10692	1	2021-10-03	2
3	10702	1	2021-10-13	3
4	10835	1	2022-01-15	4

EXPLORER: COLLAGE

> .vscode

> db\_ass1

> db\_ass2

> db\_ass3

23012064\_db3.md

intro to database assignment.pdf

TSQLV6\_edit.sql

TSQLV6.sql

> dsm\_ass1

> dsm\_ass2

db\_ass3 > TSQLV6\_edit.sql

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WHERE YEAR(orderdate) = 2021

GROUP BY shipcountry

ORDER BY avgfreight DESC;

SELECT orderid, custid, orderdate,

ROW\_NUMBER() OVER (PARTITION BY custid ORDER BY orderdate, orderid) AS rownum

FROM Sales.Orders;

SELECT empid,

...

CASE

WHEN titleofcourtesy IN ('Ms.', 'Mrs.') THEN 'Female'

WHEN titleofcourtesy = 'Mr.' THEN 'Male'

ELSE 'Unknown'

END AS gender

FROM HR.Employees;

SELECT custid, region

FROM Sales.Customers

ORDER BY CASE WHEN region IS NULL THEN 1 ELSE 0 END, region;

PROBLEMS

TERMINAL

QUERY RESULT

OUTPUT

DEBUG CONSOLE

PORTS

Results

Messages

	empid	gender
1	1	Female
2	2	Unknown
3	3	Female
4	4	Female

EXPLORER: COLLAGE

> .vscode

> db\_ass1

> db\_ass2

> db\_ass3

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intro to database assignment.pdf

TSQLV6\_edit.sql

TSQLV6.sql

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db\_ass3 > TSQLV6\_edit.sql

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SELECT empid,

...

CASE

WHEN titleofcourtesy IN ('Ms.', 'Mrs.') THEN 'Female'

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ELSE 'Unknown'

END AS gender

FROM HR.Employees;

SELECT custid, region

FROM Sales.Customers

ORDER BY CASE WHEN region IS NULL THEN 1 ELSE 0 END, region;

PROBLEMS

TERMINAL

QUERY RESULT

OUTPUT

DEBUG CONSOLE

PORTS

Results

Messages

	custid	region
1	55	AK
2	10	BC
3	42	BC
4	45	CA