

Q1

The screenshot shows a SQL Server Management Studio (SSMS) interface. At the top, there's a title bar with the text "SQLQuery3.sql - LAB...24L-0583 (sa (54))" and "LAB15-03.24L-0583 - dbo.employee". Below the title bar is a code editor window containing a SQL query:

```
-- Q1
SELECT * FROM employee
ORDER BY fname, lname;
```

Below the code editor is a results grid titled "Results". The grid displays 10 rows of data from the "employee" table, with columns labeled: fname, minit, lname, ssn, bdate, address, sex, salary, superssn, and dno. The data includes various names like Chris Davis, David Taylor, and John Smith, along with their respective details such as birth date, address, and salary.

	fname	minit	lname	ssn	bdate	address	sex	salary	superssn	dno
1	Chris	E	Davis	321654987	1988-05-05	654 Maple St	M	65000.00	987654321	5
2	David	G	Taylor	951357486	1983-07-07	135 Birch St	M	52000.00	159753486	7
3	Emily	B	Jones	456123789	1985-03-03	789 Oak St	F	55000.00	123456789	3
4	Ethan	I	Thomas	852741963	1995-09-09	246 Walnut St	M	56000.00	753951486	9
5	Jane	A	Doe	987654321	1990-02-02	456 Elm St	F	60000.00	123456789	2
6	John	D	Smith	123456789	1980-01-01	123 Main St	M	50000.00	NULL	1
7	Michael	C	Brown	789456123	1975-04-04	321 Pine St	M	75000.00	987654321	4
8	Olivia	J	Moore	654852963	1994-10-10	579 Chestnut St	F	62000.00	753951486	10
9	Sara	F	Wilson	159753486	1992-06-06	987 Spruce St	F	47000.00	456123789	6
10	Sophia	H	Anderson	753951486	1991-08-08	864 Cedar St	F	48000.00	951357486	8

Q2

```
Solution.sql - LAB1...3.24L-0583 (sa (54))*  X  LAB15-03.24L-0583 - dbo.employee

-- Q1
SELECT * FROM employee
ORDER BY fname, lname;

-- Q2
SELECT fname from employee
WHERE salary >= 50000;
```

214 %

Results Messages

	fname
1	John
2	Chris
3	Emily
4	Olivia
5	Michael
6	Ethan
7	David
8	Jane

Q3

```
LAB15-03.24L-0583 - dbo.department    Solution.sql - LAB1...3.24L-0583 (sa (54))*  ↵ X
      ORDER BY fname, lname;

-- Q2
SELECT fname from employee
WHERE salary >= 50000;

-- Q3
SELECT * FROM department
JOIN dept_locations
ON department.dnumber = dept_locations.dnumber
WHERE dname = 'HR';
```

214 %

	dname	dnumber	mgrssn	mgrstartdate	dnumber	location
1	HR	1	123456789	2023-01-01	1	Chicago
2	HR	1	123456789	2023-01-01	1	New York

Q4

The screenshot shows a SQL query editor window in SQL Server Management Studio. At the top, the title bar displays 'LAB15-03.24L-0583 - dbo.department' and 'Solution.sql - LAB1...3.24L-0583 (sa (54))'. The main pane contains two queries:

```
-- Q3
SELECT * FROM department
JOIN dept_locations
ON department.dnumber = dept_locations.dnumber
WHERE dname = 'HR';

-- Q4
SELECT salary, dno FROM employee
WHERE sex = 'F';
```

Below the queries is a results grid. The 'Results' tab is selected, showing the output of the second query:

	salary	dno
1	47000.00	6
2	55000.00	3
3	62000.00	10
4	48000.00	8
5	60000.00	2

Q5

The screenshot shows a SQL query editor window with two queries. The first query, labeled -- Q4, selects salary and dno from the employee table where sex is 'F'. The second query, labeled -- Q5, selects fname from the employee table where salary is between 4000 and 50000. The results pane shows a table with three rows, each containing a value for fname.

```
-- Q4
SELECT salary, dno FROM employee
WHERE sex = 'F';

-- Q5
SELECT fname from employee
WHERE salary >= 4000 AND salary <= 50000;
```

fname
John
Sara
Sophia

Q6

The screenshot shows a SQL query editor window in SQL Server Management Studio. The top part displays two queries:

```
-- Q5
SELECT fname FROM employee
WHERE salary >= 4000 AND salary <= 50000;

-- Q6
SELECT DISTINCT fname FROM employee
WHERE dno = 5;
```

The bottom part shows the results of the second query (Q6) in a 'Results' grid:

fname
Chris

Q7

Before Query:

The screenshot shows the SQL Server Management Studio interface. The query editor window contains the following code:

```
LAB15-03.24L-0583 - dbo.project Solution.sql - LAB1...3.24L-0583 (sa (54)) ×  
-- Q6  
SELECT fname from employee  
WHERE salary >= 4000 AND salary <= 50000;  
  
-- Q6  
SELECT DISTINCT fname FROM employee  
WHERE dno = 5;  
  
-- Q7  
SELECT pname, plocation FROM project  
WHERE pname = 'Kappa';
```

The results pane below shows the output of the last query:

	pname	plocation
1	Kappa	Detroit

After Query:

The screenshot shows the SQL Server Management Studio interface. The query editor window contains the following code:

```
-- Q7  
UPDATE project  
SET plocation = 'London'  
WHERE pname = 'Kappa';  
SELECT pname, plocation FROM project  
WHERE pname = 'Kappa';
```

The results pane below shows the output of the last query after the update:

	pname	plocation
1	Kappa	London

Q8

Before Query:

-- Q8
SELECT * FROM project;

Results

	pname	pnumber	plocation	dnum
1	Alpha	1	New York	1
2	Beta	2	Los Angeles	2
3	Gamma	3	San Francisco	3
4	Delta	4	Seattle	4
5	Epsilon	5	Austin	5
6	Zeta	6	Atlanta	6
7	Eta	7	Phoenix	7
8	Theta	8	San Diego	8
9	Iota	9	Orlando	9
10	Kappa	10	London	10

Query:

-- Q8
DELETE FROM project
WHERE pname = 'Iota';

Messages

(1 row affected)

Completion time: 2026-02-20T10:00:50.0284793+05:00

After Query:

SELECT * FROM project;

Results

	pname	pnumber	plocation	dnum
1	Alpha	1	New York	1
2	Beta	2	Los Angeles	2
3	Gamma	3	San Francisco	3
4	Delta	4	Seattle	4
5	Epsilon	5	Austin	5
6	Zeta	6	Atlanta	6
7	Eta	7	Phoenix	7
8	Theta	8	San Diego	8
9	Kappa	10	London	10

Q9

LAB15-03.24L-0583 - dbo.project Solution.sql - LAB1...3.24L-0583 (sa (54)) ×

```
-- Q9
DELETE FROM project
WHERE pname = 'Iota';

-- Q9
SELECT fname, lname FROM employee
EXCEPT
SELECT fname, lname FROM employee
WHERE dno = 7;
```

214 %

Results Messages

	fname	lname
1	Chris	Davis
2	Emily	Jones
3	Ethan	Thomas
4	Jane	Doe
5	John	Smith
6	Michael	Brown
7	Olivia	Moore
8	Sara	Wilson
9	Sophia	Anderson

Q10

Before Query:

-- Q10

```
SELECT lname, salary
FROM employee;
```

214 %

	Iname	salary
1	Smith	50000.00
2	Wilson	47000.00
3	Davis	65000.00
4	Jones	55000.00
5	Moore	62000.00
6	Anderson	48000.00
7	Brown	75000.00
8	Thomas	56000.00
9	Taylor	52000.00
10	Doe	60000.00

Query:

-- Q10

```
UPDATE employee
SET salary = 51000
WHERE lname = 'Wilson';
```

214 %

(1 row affected)

Completion time: 2026-02-20T10:04:23.2135030+05:00

After Query:

```
SELECT lname, salary
FROM employee;
```

214 %

	Iname	salary
1	Smith	50000.00
2	Wilson	51000.00
3	Davis	65000.00
4	Jones	55000.00
5	Moore	62000.00
6	Anderson	48000.00
7	Brown	75000.00
8	Thomas	56000.00
9	Taylor	52000.00
10	Doe	60000.00

Q11

Before Query:

-- Q11

```
SELECT dno, salary FROM employee;
```

214 %

	dno	salary
1	1	50000.00
2	6	51000.00
3	5	65000.00
4	3	55000.00
5	10	62000.00
6	8	48000.00
7	4	75000.00
8	9	56000.00
9	7	52000.00
10	2	60000.00

Query:

-- Q11

```
UPDATE employee
SET salary = salary * 1.10
WHERE dno = 4;
```

(1 row affected)

Completion time: 2026-02-20T10:07:54.5629937+05:00

After Query:

```
SELECT dno, salary FROM employee;
```

214 %

	dno	salary
1	1	50000.00
2	6	51000.00
3	5	65000.00
4	3	55000.00
5	10	62000.00
6	8	48000.00
7	4	82500.00
8	9	56000.00
9	7	52000.00
10	2	60000.00

Q12

The screenshot shows a SQL query window titled "Solution.sql - LAB1...3.24L-0583 (sa (54))". The query is:

```
-- Q12
SELECT dlocation FROM dept_locations
UNION
SELECT plocation FROM project;
```

The results pane displays the following data:

location
1 Atlanta
2 Austin
3 Boston
4 Chicago
5 Cleveland
6 Dallas
7 Denver
8 Detroit
9 Houston
10 London
11 Los Angeles
12 Miami
13 New York
14 Orlando
15 Philadelphia
16 Phoenix
17 San Diego
18 San Francisco
19 San Jose
20 Seattle
21 Tampa

Q13

```
-- Q13
SELECT dlocation FROM dept_locations
EXCEPT
SELECT plocation FROM project;
```

214 %

	dlocation
1	Boston
2	Chicago
3	Cleveland
4	Dallas
5	Denver
6	Detroit
7	Houston
8	Miami
9	Orlando
10	Philadelphia
11	San Jose
12	Tampa

Q14

The screenshot shows a SQL Server Management Studio (SSMS) interface. At the top, there's a title bar with the text "LAB15-03.24L-0583 - dbo.project" and "Solution.sql - LAB1...3.24L-0583 (sa (54))". Below the title bar is a code editor window containing the following SQL query:

```
SELECT plocation FROM project;  
-- Q14  
SELECT dlocation FROM dept_locations  
INTERSECT  
SELECT plocation FROM project;
```

Below the code editor is a results grid titled "Results". The grid has a single column labeled "dlocation" and contains the following data:

dlocation
Atlanta
Austin
Los Angeles
New York
Phoenix
San Diego
San Francisco
Seattle

Q15

The screenshot shows a SQL Server Management Studio (SSMS) interface. At the top, there are three tabs: 'LAB15-03.24L-0583 - dbo.department', 'LAB15-03.24L-0583 - dbo.employee', and 'Solution.sql - LAB15-03.24L-0583 (sa (54))'. The main area contains a query window with the following code:

```
-- Q15
SELECT fname, lname FROM employee
WHERE dno =
(SELECT dnumber FROM department
WHERE dname = 'HR');
```

Below the query window is a results pane. The 'Results' tab is selected, showing the following output:

	fname	lname
1	John	Smith

Q16

The screenshot shows a SQL query window in SSMS. The query is:

```
-- Q16
SELECT dname, COUNT(*) AS Count
FROM department
JOIN project
ON department.dnumber = project.dnum
WHERE project.plocation = 'New York'
GROUP BY dname;
```

The results pane shows the following data:

dname	Count
HR	1

Q17

The screenshot shows a SQL query window in SSMS with the following code:

```
LAB15-03.24L-0583 - dbo.works_on    LAB15-03.24L-0583 - dbo.employee    LAB15-03.24L-0583 - dbo.project    LAB15-03.24L-0583 - dbo.department    Solution.sql - LAB15-03.24L-0583 (sa (54))  X
GROUP BY dname;

-- Q17
SELECT fname, lname, salary
FROM employee
WHERE ssn IN
(SELECT essn FROM works_on
WHERE hours >= 30);
```

The results pane shows the following data:

	fname	lname	salary
1	Chris	Davis	65000.00
2	Olivia	Moore	62000.00
3	Michael	Brown	82500.00
4	Jane	Doe	60000.00

Q18

The screenshot shows a SQL query window in SSMS with the following code:

```
-- Q18
SELECT dnumber, dlocation AS 'Female Department Locations'
FROM dept_locations
WHERE dnumber NOT IN
(SELECT dno
FROM employee
WHERE sex = 'M');
```

The results pane displays the output of the query:

dnumber	Female Department Locations
1	2 Houston
2	2 Los Angeles
3	3 Boston
4	3 San Francisco
5	6 Atlanta
6	6 Miami
7	8 San Diego
8	8 San Jose
9	10 Cleveland
10	10 Detroit

Q19

The screenshot shows a SQL query window in SSMS. The query retrieves employee first names and dependent names from the employee and dependent tables. The results are displayed in a table with two columns: Employee First Name and Dependent Name.

```
FROM employee
WHERE sex = 'M';

-- Q19
SELECT DISTINCT employee.fname AS 'Employee First Name',
dependent.dependent_name AS 'Dependent Name'
FROM employee
JOIN dependent ON employee.ssn = dependent.essn;
```

	Employee First Name	Dependent Name
1	Chris	Liam
2	David	Olive
3	Emily	Ella
4	Ethan	Sophia
5	Jane	Sam
6	John	Anna
7	John	Mark
8	Michael	Max
9	Sara	Emma
10	Sophia	Lucas

Q20

There was no case of same employee name and dependent name in the given Data. So I added a case myself.

The screenshot shows a SQL Server Management Studio window with three tabs at the top: LAB15-03-24L-0583 - dbo.dependent, LAB15-03-24L-0583 - dbo.employee, and Solution.sql - LAB1..3.24L-0583 (sa (54)). The main pane contains a query labeled 'Q20':

```
-- Q20
SELECT employee.fname AS 'Employee First Name',
dependent.dependent_name AS 'Dependent Name'
FROM employee
JOIN dependent ON employee.ssn = dependent.essn
WHERE employee.fname = dependent_name;
```

The results pane shows one row:

Employee First Name	Dependent Name
Aqad	Aqad

At the bottom, a message indicates the query was executed successfully.

Q21

The screenshot shows a SQL Server Management Studio window. The query editor contains the following code:

```
LAB11-03.24L-0583 - dbo.dept_locations Solution.sql - LAB11-3.24L-0583 (ss (54)) ×
(
    SELECT dnumber FROM dept_locations
    WHERE dlocation LIKE 'S%');

-- Q21
SELECT * FROM department
WHERE dnumber IN
(
    SELECT dnumber FROM dept_locations
    WHERE dlocation LIKE 'S%');

```

The results pane displays the following table:

dname	dnumber	mgrsnn	mgrstartdate
IT	3	456123789	2023-03-01
Marketing	4	789456123	2023-04-01
Legal	8	753951486	2023-08-01

Q22

The screenshot shows a SQL Server Management Studio interface. At the top, there are three tabs: 'LAB15-03.24L-0583 - dbo.project', 'LAB15-03.24L-0583 - dbo.dept_locations', and 'Solution.sql - LAB15-03.24L-0583 (sa (\$4))'. The main area contains a query window with the following content:

```
-- Q22
SELECT * FROM project
WHERE plocation LIKE '%s%'
AND plocation NOT LIKE 's%'
AND plocation NOT LIKE '%s';
```

Below the query window is a results grid. The grid has four columns: 'pname', 'pnumber', 'plocation', and 'dnum'. There is one row of data:

pname	pnumber	plocation	dnum
Epsilon	5	Austin	5

Practice Question

The screenshot shows a SQL query editor window with the following details:

Query Text (Transact-SQL):

```
-- Practice Question
SELECT employee.* FROM employee
JOIN dependent
ON employee.ssn = dependent.essn
WHERE employee.dno IN
(SELECT dnumber FROM department
WHERE dname = 'Finance'
OR dname = 'Marketing')
EXCEPT
SELECT employee.* FROM employee
JOIN dependent
ON employee.ssn = dependent.essn
WHERE employee.ssn IN
(SELECT essn FROM works_on
WHERE hours >= 20
AND hours <= 30);
```

Results Grid:

	fname	minit	lname	ssn	bdate	address	sex	salary	superssn	dno
1	Michael	C	Brown	1122	1975-04-04	321 Pine St	M	82500.00	987654321	4
2	Ajed	Z	Raza	123	1990-02-12	2323 Lahore	M	600000.00	12345	4
3	Jane	A	Doe	9999	1990-02-02	456 Elm St	F	60000.00	123456789	2