

Banking.sql - DESK-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (ST)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

- DESKTOP-BLAC2BR (SQL Server 15.0.2075.1)
- Databases
- Security
- Server Objects
- Replication
- PolyBase
- Always On High Availability
- Management
- Integration Services Catalogs
- SQL Server Agent (Agent XPs disabled)
- XEvent Profiler

BankingSystem

Execute

```
UPDATE Account
SET Balance = Balance + 1.05
WHERE Balance < 5000;

UPDATE CustomerPhone
SET Phone_Number = 'Not Provided'
WHERE Phone_Number IS NULL;

DELETE FROM Account
WHERE Balance = 0;

-----Join-----
SELECT
b.BranchID,
b.Address AS Branch_Name,
e.Name AS Manager_Name
FROM Branch b
JOIN Employee e
ON b.BranchID = e.BranchID
WHERE e.Position = 'Manager';
```

100 %

Results Messages

BranchID	Branch_Name	Manager_Name
1	Muscat Main Branch	Ali Hassan

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 1 rows

Ready

17°C Mostly sunny

Search

Ln 216 Col 1 Ch 1 IN6

8:00 AM 12/22/2025

Banking.sql - DESK-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (ST)) - Microsoft SQL Server Management Studio (Administrator)

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Object Explorer

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BankingSystem

Execute

```
WHERE Balance = 0;

-----Join-----
SELECT
b.BranchID,
b.Address AS Branch_Name,
e.Name AS Manager_Name
FROM Branch b
JOIN Employee e
ON b.BranchID = e.BranchID
WHERE e.Position = 'Manager';

SELECT
b.Address AS Branch_Name,
a.Account_Number
FROM Branch b
JOIN Employee e ON b.BranchID = e.BranchID
JOIN Loan l ON e.EmployeeID = l.EmployeeID
JOIN Account a ON l.CustomerID = a.CustomerID;
```

100 %

Results Messages

Branch_Name	Account_Number
Salah Branch	100000
Muscat Main Branch	100001
Solar Branch	100002

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 3 rows

Ready

17°C Mostly sunny

Search

Ln 225 Col 1 Ch 1 IN6

8:03 AM 12/22/2025

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (ST)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

Connect: DESKTOP-BLAC2BR (SQL Server 15.0.20)

Databases

Security

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Replication

PolyBase

Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XEvent Profiler

BankingSystem

Execute

Banking.sql - DESKTOP-BLAC2BR\fatih (ST)

```

----->JoIn-----
----->JoIn-----
SELECT
    b.BranchID,
    b.Address AS Branch_Name,
    e.Name AS Manager_Name
FROM Branch b
JOIN Employee e
    ON b.BranchID = e.BranchID
WHERE e.Position = 'Manager';

SELECT
    b.Address AS Branch_Name,
    a.Account_Number
FROM Branch b
JOIN Employee e ON b.BranchID = e.BranchID
JOIN Loan l ON e.EmployeeID = l.EmployeeID
JOIN Account a ON l.CustomerID = a.CustomerID;

SELECT
    c.CustomerID,
    c.Name,
    c.Address,
    c.DOB,
    l.LoanID,
    l.Amount,
    l.Type,
    l.Issue_Date
FROM Customer c
JOIN Loan l
    ON c.CustomerID = l.CustomerID

```

100 %

Results Messages

CustomerID	Name	Address	DOB	LoanID	Amount	Type	Issue_Date
1	Fatima Alahdi	Muscat	2000-01-01	1	150000.00	Home Loan	2010-06-01
2	Ahmed Ali	Salah	1998-05-10	2	80000.00	Car Loan	2018-09-10
3	Sara Mohamed	Sohar	2001-09-15	3	200000.00	Business Loan	2005-02-20

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 3 rows

Ready

17°C Mostly sunny

Search

Ln 233 Col 1 Ch 1 IN5

8:03 AM 12/22/2023

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (ST)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

Connect: DESKTOP-BLAC2BR (SQL Server 15.0.20)

Databases

Security

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Replication

PolyBase

Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XEvent Profiler

BankingSystem

Execute

Banking.sql - DESKTOP-BLAC2BR\fatih (ST)

```

SELECT
    c.CustomerID,
    c.Name,
    c.Address,
    c.DOB,
    l.LoanID,
    l.Amount,
    l.Type,
    l.Issue_Date
FROM Customer c
JOIN Loan l
    ON c.CustomerID = l.CustomerID;

SELECT
    l.LoanID,
    l.CustomerID,
    l.EmployeeID,
    l.Amount,
    l.Type,
    l.Issue_Date
FROM Loan l
JOIN Employee e ON l.EmployeeID = e.EmployeeID
JOIN Branch b ON e.BranchID = b.BranchID
WHERE b.Address LIKE 'Muscat'
OR b.Address LIKE 'Sohar';

```

100 %

Results Messages

LoanID	CustomerID	EmployeeID	Amount	Type	Issue_Date
2	2	1	80000.00	Car Loan	2018-09-10
3	3	3	200000.00	Business Loan	2005-02-20

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 2 rows

Item(s) Saved

17°C Mostly sunny

Search

Ln 246 Col 1 Ch 1 IN5

8:05 AM 12/22/2023

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (ST)) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer: Connect to DESKTOP-BLAC2BR (SQL Server 15.0.20722.1) | BankingSystem

```

SELECT
    c.CustomerID,
    c.Name,
    c.Address,
    c.DOB,
    l.LoanID,
    l.Amount,
    l.Type,
    l.Issue_Date
FROM Customer c
JOIN Loan l
    ON c.CustomerID = l.CustomerID;

SELECT
    1,
    FROM Loan l
JOIN Employee e ON l.EmployeeID = e.EmployeeID
JOIN Branch b ON e.BranchID = b.BranchID
WHERE b.Address LIKE 'Moscow%'
    OR b.Address LIKE 'Sohar%';

SELECT *
FROM Account
WHERE Savings = 1;

```

Results: 100% | Messages

	Account Number	CustomerID	Balance	Savings	Checking	Date_of_Creation
1	100000	1	12000.00	1	0	2023-03-15
2	100002	3	4200.00	1	1	2023-11-05
3	100003	5	12000.00	1	0	2025-12-17

Query executed successfully. DESKTOP-BLAC2BR (15.0 RTM) | DESKTOP-BLAC2BR\fatih ... | BankingSystem | 00:00:00 | 3 rows

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (ST)) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer: Connect to DESKTOP-BLAC2BR (SQL Server 15.0.20722.1) | BankingSystem

```

1. Issue_Date
FROM Customer c
JOIN Loan l
    ON c.CustomerID = l.CustomerID;

SELECT
    1,
    FROM Loan l
JOIN Employee e ON l.EmployeeID = e.EmployeeID
JOIN Branch b ON e.BranchID = b.BranchID
WHERE b.Address LIKE 'Moscow%'
    OR b.Address LIKE 'Sohar%';

SELECT *
FROM Account
WHERE Savings = 1;

SELECT
    c.CustomerID,
    c.Name,
    a.Account_Number,
    a.Balance
FROM Customer c
JOIN Account a
    ON c.CustomerID = a.CustomerID
WHERE a.Balance BETWEEN 20000 AND 50000;

```

Results: 100% | Messages

	CustomerID	Name	Account Number	Balance
1	2	Ahmed Ali	100001	25000.00

Query executed successfully. DESKTOP-BLAC2BR (15.0 RTM) | DESKTOP-BLAC2BR\fatih ... | BankingSystem | 00:00:00 | 1 rows

Banking.sql - DESK-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (STP)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Quick Launch (Ctrl+Q)

Object Explorer

Connect to: DESKTOP-BLAC2BR (SQL Server 15.0.2075.1)

Databases

Security

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Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XEvent Profiler

BankingSystem

Execute

Banking.sql - DESK-BLAC2BR\fatih (STP)

```

301N Branch b ON e.BranchID = b.BranchID
WHERE b.Address LIKE 'Muscat'
OR b.Address LIKE 'Nizhar';

--SELECT
FROM Account
WHERE Savings = 1;

--SELECT
c.CustomerID,
c.Name,
a.AccountNumber,
a.Balance
FROM Customer c
201N Account a
ON c.CustomerID = a.CustomerID
WHERE a.Balance BETWEEN 20000 AND 50000;

--SELECT DISTINCT
c.Name
FROM Customer c
201N Loan l ON c.CustomerID = l.CustomerID
201N Employee e ON l.EmployeeID = e.EmployeeID
201N Branch b ON e.BranchID = b.BranchID
WHERE l.Amount > 1000
AND b.Address = 'Muscat Main Branch';

```

100 %

Results Messages

1 1 Row(s) affected

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 1 row(s)

Ready

19°C Mostly sunny

Search

Ln 266 Col 1 Ch 1 IN5

8:14 AM 12/22/2023

Banking.sql - DESK-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (STP)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Quick Launch (Ctrl+Q)

Object Explorer

Connect to: DESKTOP-BLAC2BR (SQL Server 15.0.2075.1)

Databases

Security

Server Objects

Replication

PolyBase

Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XEvent Profiler

BankingSystem

Execute

Banking.sql - DESK-BLAC2BR\fatih (STP)

```

WHERE a.Balance BETWEEN 20000 AND 50000;

--SELECT DISTINCT
c.Name
FROM Customer c
201N Loan l ON c.CustomerID = l.CustomerID
201N Employee e ON l.EmployeeID = e.EmployeeID
201N Branch b ON e.BranchID = b.BranchID
WHERE l.Amount > 1000
AND b.Address = 'Muscat Main Branch';

--SELECT
c.CustomerID,
c.Name
FROM Customer c
201N Customer_Employee ce
ON c.CustomerID = ce.CustomerID
201N Employee e
ON ce.EmployeeID = e.EmployeeID
WHERE e.Name = 'Khalid Omar';

```

100 %

Results Messages

1 1 Row(s) affected

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 1 row(s)

Ready

Tomorrow's low To be recorded

Search

Ln 277 Col 1 Ch 1 IN5

8:16 AM 12/22/2023

Banking.sql - DESK-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (STP)) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer: Connect to DESKTOP-BLAC2BR (SQL Server 15.0.2075.1) | Databases | Security | Server Objects | Replication | PolyBase | Always On High Availability | Management | Integration Services Catalogs | SQL Server Agent (Agent XPs disabled) | XEvent Profiler

Query Editor: BankingSystem

```

3010 Branch b ON e.BranchID = b.BranchID
WHERE 1.Amount > 1000
AND b.Address = 'Muscat Main Branch';

--SELECT
--    c.CustomerID,
--    c.Name
--FROM Customer c
3011 Customer_Employee ce
ON c.CustomerID = ce.CustomerID
3012 Employee e
ON ce.EmployeeID = e.EmployeeID
WHERE e.Name = 'Khalid Omar';

--SELECT
--    c.Name,
--    a.Account_Number,
--    CASE
--        WHEN a.Savings = 1 THEN 'Savings'
--        WHEN a.Checking = 1 THEN 'Checking'
--        ELSE 'Other'
--    END AS Account_Type
--FROM Customer c
3013 Account a
ON c.CustomerID = a.CustomerID
ORDER BY Account_Type;

```

Results: 100% | Messages

Name	Account_Number	Account_Type
1 Ahmed Ali	100001	Checking
2 Sara Mohammed	100002	Savings
3 Fatima Afahd	100003	Savings
4 Fatima Afahd	100000	Savings

Query executed successfully. DESKTOP-BLAC2BR (15.0 RTM) | DESKTOP-BLAC2BR\fatih... | BankingSystem | 00:00:00 | 4 rows

Ready | Tomorrow's low | To be record | Search | Ln 287 | Col 1 | Ch 1 | ING | 8:17 AM | 12/22/2023

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (STP)) - Microsoft SQL Server Management Studio (Administrator)

Object Explorer: Connect to DESKTOP-BLAC2BR (SQL Server 15.0.2075.1) | Databases | Security | Server Objects | Replication | PolyBase | Always On High Availability | Management | Integration Services Catalogs | SQL Server Agent (Agent XPs disabled) | XEvent Profiler

Query Editor: BankingSystem

```

3010 Customer_Employee ce
ON c.CustomerID = ce.CustomerID
3011 Employee e
ON ce.EmployeeID = e.EmployeeID
WHERE e.Name = 'Khalid Omar';

--SELECT
--    c.Name,
--    a.Account_Number,
--    CASE
--        WHEN a.Savings = 1 THEN 'Savings'
--        WHEN a.Checking = 1 THEN 'Checking'
--        ELSE 'Other'
--    END AS Account_Type
--FROM Customer c
3012 Account a
ON c.CustomerID = a.CustomerID
ORDER BY Account_Type;

--SELECT
--    l.LoanID,
--    c.Name AS Customer_Name,
--    e.Name AS Employee_Name,
--    b.Address AS Branch_Name
--FROM Loan l
3013 Customer c ON l.CustomerID = c.CustomerID
3014 Employee e ON l.EmployeeID = e.EmployeeID
3015 Branch b ON c.BranchID = b.BranchID
WHERE b.Address LIKE 'Muscat%';

```

Results: 100% | Messages

LoanID	Customer_Name	Employee_Name	Branch_Name
1	Fatima Afahd	Mona Saleh	Salah Branch

Query executed successfully. DESKTOP-BLAC2BR (15.0 RTM) | DESKTOP-BLAC2BR\fatih... | BankingSystem | 00:00:00 | 1 rows

Ready | Tomorrow's low | To be record | Search | Ln 300 | Col 1 | Ch 1 | ING | 8:17 AM | 12/22/2023

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (STP)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

Connect: DESKTOP-BLAC2BR (SQL Server 15.0.20)

Databases

Security

Server Objects

Replication

PolyBase

Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XEvent Profiler

BankingSystem

Execute

```

SELECT
    c.Name,
    a.Account_Number,
    CASE
        WHEN a.Savings = 1 THEN 'Savings'
        WHEN a.Checking = 1 THEN 'Checking'
        ELSE 'Other'
    END AS Account_Type
FROM Customer c
JOIN Account a
    ON c.CustomerID = a.CustomerID
ORDER BY Account_Type;

SELECT
    1 LoanID,
    c.Name AS Customer_Name,
    e.Name AS Employee_Name,
    b.Address AS Branch_Name
FROM Loan l
JOIN Customer c ON l.CustomerID = c.CustomerID
JOIN Employee e ON l.EmployeeID = e.EmployeeID
JOIN Branch b ON e.BranchID = b.BranchID
WHERE b.Address LIKE 'Makaleh';

SELECT
    e.EmployeeID,
    e.Name,
    b.Address AS Branch_Name
FROM Employee e
JOIN Branch b
    ON e.BranchID = b.BranchID
WHERE e.Position = 'Manager';

```

100 %

Results Messages

EmployeeID	Name	Branch_Name
1	Ali Hassan	Makaleh Main Branch

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 1 rows

Ready

Tomorrow's low  
To be recorded

Ln 311 Col 1 Ch 1 INS

8:18 AM  
12/22/2023

Banking.sql - DESKTOP-BLAC2BR\BankingSystem (DESKTOP-BLAC2BR\fatih (STP)) - Microsoft SQL Server Management Studio (Administrator)

File Edit View Query Project Tools Window Help

Object Explorer

Connect: DESKTOP-BLAC2BR (SQL Server 15.0.20)

Databases

Security

Server Objects

Replication

PolyBase

Always On High Availability

Management

Integration Services Catalogs

SQL Server Agent (Agent XPs disabled)

XEvent Profiler

BankingSystem

Execute

```

SELECT
    1 LoanID,
    c.Name AS Customer_Name,
    e.Name AS Employee_Name,
    b.Address AS Branch_Name
FROM Loan l
JOIN Customer c ON l.CustomerID = c.CustomerID
JOIN Employee e ON l.EmployeeID = e.EmployeeID
JOIN Branch b ON e.BranchID = b.BranchID
WHERE b.Address LIKE 'Makaleh';

SELECT
    e.EmployeeID,
    e.Name,
    b.Address AS Branch_Name
FROM Employee e
JOIN Branch b
    ON e.BranchID = b.BranchID
WHERE e.Position = 'Manager';

SELECT
    c.CustomerID,
    c.Name,
    t.TransactionID,
    t.Transaction_Date,
    t.Amount,
    t.Type
FROM Customer c
LEFT JOIN Account a
    ON c.CustomerID = a.CustomerID
LEFT JOIN [Transaction] t
    ON a.Account_Number = t.Account_Number;

```

100 %

Results Messages

CustomerID	Name	TransactionID	Transaction_Date	Amount	Type
1	Fatima Alahdi	1	2024-01-05	2000.00	Withdrawal
2	Ahmed Ali	2	2024-02-10	5000.00	Deposit
3	Sara Mohamed	3	2024-03-12	3000.00	Transfer
4	Fatima Alahdi	NULL	NULL	NULL	NULL
5	Fatima Alahdi	NULL	NULL	NULL	NULL
6	Ahmed Ali	NULL	NULL	NULL	NULL

Query executed successfully.

DESKTOP-BLAC2BR (15.0 RTM) DESKTOP-BLAC2BR\fatih ... BankingSystem 00:00:00 6 rows

Ready

Tomorrow's low  
To be recorded

Ln 320 Col 1 Ch 1 INS

8:18 AM  
12/22/2023