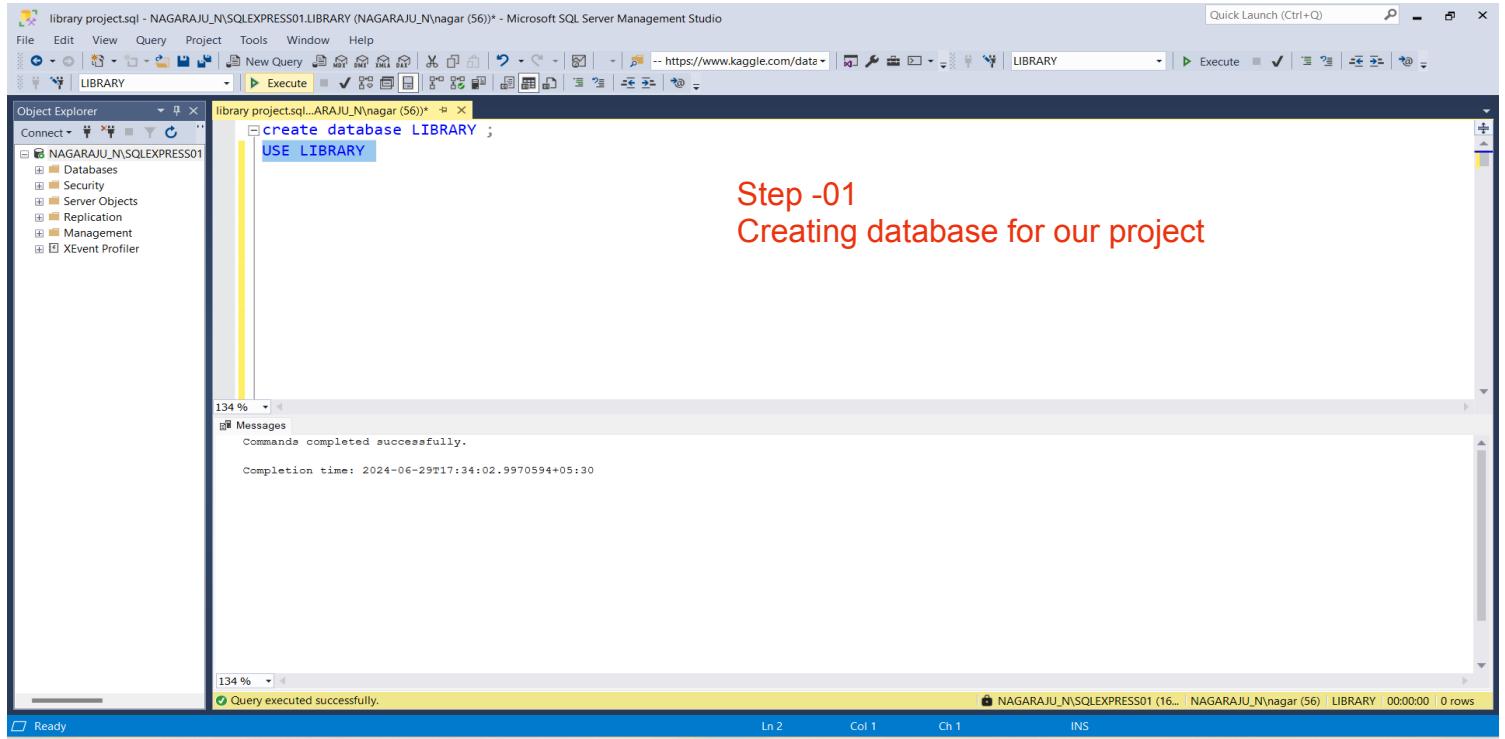


SQL PROJECT : Library Management System

We are going to build a project based on library management system. It keeps track all information about books in the library ,their rental cost ,status and total number of books available in the library.



The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'LIBRARY' is selected under 'NAGARAJU_N\SQLEXPRESS01'. The 'LIBRARY' database is also highlighted in the 'Selected Database' dropdown at the top. In the center pane, a query window displays the following SQL code:

```
create database LIBRARY ;
USE LIBRARY ;
```

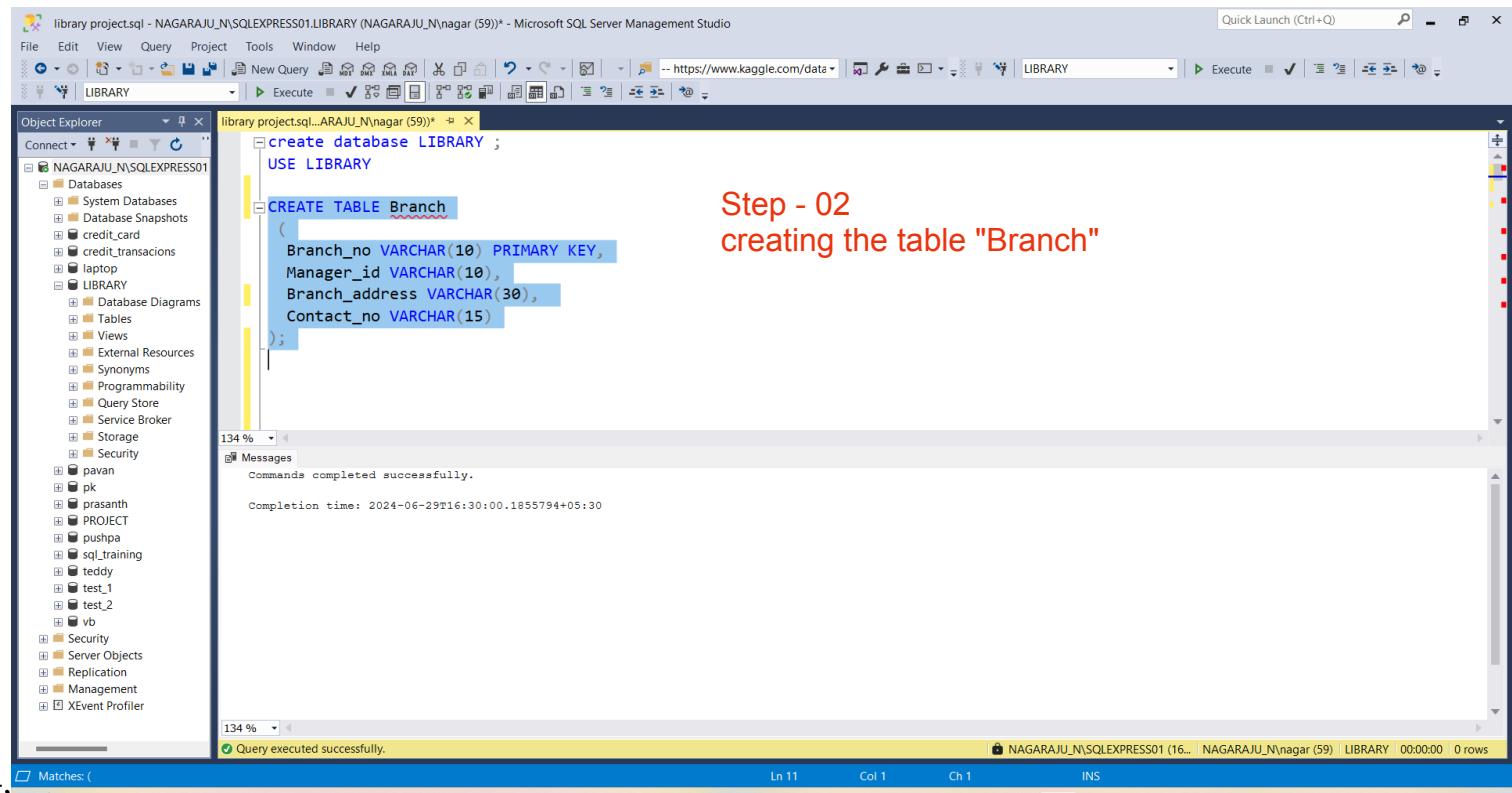
Below the code, the 'Messages' pane shows the execution results:

```
Commands completed successfully.

Completion time: 2024-06-29T17:34:02.9970594+05:30
```

A status bar at the bottom indicates 'Ready'.

Step -01
Creating database for our project



The screenshot shows the Microsoft SQL Server Management Studio interface. In the Object Explorer, a database named 'LIBRARY' is selected under 'NAGARAJU_N\SQLEXPRESS01'. The 'LIBRARY' database is also highlighted in the 'Selected Database' dropdown at the top. In the center pane, a query window displays the following SQL code:

```
CREATE TABLE Branch
(
    Branch_no VARCHAR(10) PRIMARY KEY,
    Manager_id VARCHAR(10),
    Branch_address VARCHAR(30),
    Contact_no VARCHAR(15)
);
```

Below the code, the 'Messages' pane shows the execution results:

```
Commands completed successfully.

Completion time: 2024-06-29T16:30:00.1855794+05:30
```

A status bar at the bottom indicates 'Ready'.

Step - 02
creating the table "Branch"

library projectsql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute Quick Launch (Ctrl+Q)

LIBRARY

Object Explorer

NAGARAJU_N\SQLEXPRESS01

- Databases
- System Databases
- Database Snapshots
- credit_card
- credit_transacions
- laptop
- LIBRARY
- Database Diagrams
- Tables
- Views
- External Resources
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- pavan
- pk
- prasanth
- PROJECT
- pushpa
- sql.training
- teddy
- test_1
- test_2
- vb
- Security
- Server Objects
- Replication
- Management
- XEvent Profiler

library projectsql..ARAJU_N\nagar (59)*

```

CREATE TABLE Branch
(
    Branch_no VARCHAR(10) PRIMARY KEY,
    Manager_id VARCHAR(10),
    Branch_address VARCHAR(30),
    Contact_no VARCHAR(15)
);

INSERT INTO Branch(Branch_no,Manager_id,Branch_address,Contact_no)
VALUES('B001', 'M101','koramangala Branch- NO.48', '9099988676'),
      ('B002', 'M102','white Field Branch -NO.67', '9099988677'),
      ('B003', 'M103','Jayanagar Branch -NO.22', '9099988678'),
      ('B004', 'M104','Malleshwaram Branch -No.15', '9099988679'),
      ('B005', 'M105','Electronic city Branch-NO.12', '9099988680');
  
```

(5 rows affected)

Completion time: 2024-06-29T16:30:29.1659937+05:30

Query executed successfully.

LN 17 Col 1 Ch 1 INS

inserting values into Branch

library projectsql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query Execute Quick Launch (Ctrl+Q)

LIBRARY

Object Explorer

NAGARAJU_N\SQLEXPRESS01

- Databases
- System Databases
- Database Snapshots
- credit_card
- credit_transacions
- laptop
- LIBRARY
- Database Diagrams
- Tables
- Views
- External Resources
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- pavan
- pk
- prasanth
- PROJECT
- pushpa
- sql.training
- teddy
- test_1
- test_2
- vb
- Security
- Server Objects
- Replication
- Management
- XEvent Profiler

library projectsql..ARAJU_N\nagar (59)*

```

>Contact_no VARCHAR(15)

);

INSERT INTO Branch(Branch_no,Manager_id,Branch_address,Contact_no)
VALUES('B001', 'M101','koramangala Branch- NO.48', '9099988676'),
      ('B002', 'M102','white Field Branch -NO.67', '9099988677'),
      ('B003', 'M103','Jayanagar Branch -NO.22', '9099988678'),
      ('B004', 'M104','Malleshwaram Branch -No.15', '9099988679'),
      ('B005', 'M105','Electronic city Branch-NO.12', '9099988680');

Select * from Branch;
  
```

Results

Branch_no	Manager_id	Branch_address	Contact_no
1 B001	M101	koramangala Branch- NO.48	9099988676
2 B002	M102	white Field Branch -NO.67	9099988677
3 B003	M103	Jayanagar Branch -NO.22	9099988678
4 B004	M104	Malleshwaram Branch -No.15	9099988679
5 B005	M105	Electronic city Branch-NO.12	9099988680

Query executed successfully.

LN 18 Col 1 Ch 1 INS

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

LIBRARY

Object Explorer

Select * from Branch;

CREATE TABLE Employee

```
CREATE TABLE Employee
(
    Emp_id VARCHAR(10) PRIMARY KEY,
    Emp_name VARCHAR(30),
    Branch_no VARCHAR(10),
    Position VARCHAR(30),
    Salary DECIMAL(10,2),
    FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no),
);
```

134 %

Messages

Commands completed successfully.

Completion time: 2024-06-29T16:34:35.1927933+05:30

134 %

Query executed successfully.

NAGARAJU_N\SQLEXPRESS01 (16... | NAGARAJU_N\nagar (59) | LIBRARY | 00:00:00 | 0 rows

Ready

Ln 30 Col 1 Ch 1 INS

Step - 03
creating the table "Employee"

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

LIBRARY

Object Explorer

FOREIGN KEY (Branch_no) REFERENCES Branch(Branch_no),

);

INSERT INTO Employee (Emp_id, Emp_name, Branch_no, Position, Salary)

```
VALUES ('E101', 'Kiran Kumar', 'B001', 'Manager', 60000.00),
       ('E102', 'Siva kumar', 'B001', 'Clerk', 45000.00),
       ('E103', 'Nagaraju', 'B001', 'Librarian', 55000.00),
       ('E104', 'prashanth', 'B001', 'Assistant', 40000.00),
       ('E105', 'David', 'B002', 'Assistant', 42000.00),
       ('E106', 'Ramu', 'B003', 'Assistant', 43000.00),
       ('E107', 'jashuva', 'B002', 'Manager', 62000.00),
       ('E108', 'pushpa', 'B002', 'Clerk', 46000.00),
       ('E109', 'likhi', 'B004', 'Librarian', 57000.00),
       ('E110', 'Vinay kumar', 'B003', 'Assistant', 41000.00);
```

134 %

Messages

(10 rows affected)

Completion time: 2024-06-29T16:35:11.4813840+05:30

134 %

Query executed successfully.

NAGARAJU_N\SQLEXPRESS01 (16... | NAGARAJU_N\nagar (59) | LIBRARY | 00:00:00 | 0 rows

Ready

Ln 41 Col 1 Ch 1 INS

Inserting values into Employee

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MFT DMV DMV X Execute LIBRARY Quick Launch (Ctrl+Q)

```
VALUES ('E101', 'Kiran Kumar', 'B001', 'Manager', 60000.00),
       ('E102', 'Siva kumar', 'B001', 'Clerk', 45000.00),
       ('E103', 'Nagaraju', 'B001', 'Librarian', 55000.00),
       ('E104', 'prashanth', 'B001', 'Assistant', 40000.00),
       ('E105', 'David', 'B002', 'Assistant', 42000.00),
       ('E106', 'Ramu', 'B003', 'Assistant', 43000.00),
       ('E107', 'jashuva', 'B002', 'Manager', 62000.00),
       ('E108', 'pushpa', 'B002', 'Clerk', 46000.00),
       ('E109', 'likhi', 'B004', 'Librarian', 57000.00),
       ('E110', 'Vinay kumar', 'B003', 'Assistant', 41000.00);

Select * from Employee;
```

Results Messages

	Emp_id	Emp_name	Branch_no	Position	Salary
1	E101	Kiran Kumar	B001	Manager	60000.00
2	E102	Siva kumar	B001	Clerk	45000.00
3	E103	Nagaraju	B001	Librarian	55000.00
4	E104	prashanth	B001	Assistant	40000.00
5	E105	David	B002	Assistant	42000.00
6	E106	Ramu	B003	Assistant	43000.00
7	E107	jashuva	B002	Manager	62000.00
8	E108	pushpa	B002	Clerk	46000.00
9	E109	likhi	B004	Librarian	57000.00
10	E110	Vinay kumar	B003	Assistant	41000.00

Query executed successfully.

Ready library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MFT DMV DMV X Execute LIBRARY Quick Launch (Ctrl+Q)

```
VALUES ('E108', 'pushpa', 'B002', 'Clerk', 46000.00),
       ('E109', 'likhi', 'B004', 'Librarian', 57000.00),
       ('E110', 'Vinay kumar', 'B003', 'Assistant', 41000.00);

Select * from Employee;

CREATE TABLE Customer
(
    Customer_Id VARCHAR(30) PRIMARY KEY,
    Customer_name VARCHAR(30),
    Customer_address VARCHAR(30),
    Reg_date DATE
);
```

Messages

Commands completed successfully.

Completion time: 2024-06-29T16:39:10.1566682+05:30

Query executed successfully.

Step - 04 Creating the table "customer"

```
        );  
        INSERT INTO customer(Customer_id,Customer_name,Customer_address,Reg_date)  
        VALUES('C101', 'Venkatesh', 'koramangala Branch- NO.48', '2024-04-15'),  
        ('C102', 'Krishna', 'white Field Branch -NO.67', '2023-10-20'),  
        ('C103', 'Rajesh', 'Jayanagar Branch -NO.22', '2024-02-10'),  
        ('C104', 'Dipak', 'Malleshwaram Branch -No.15', '2023-11-05'),  
        ('C105', 'Rohit', 'Electronic city Branch-NO.12', '2024-01-25'),  
        ('C106', 'Virat kohli', 'MG Road Branch-NO.45', '2024-03-15'),  
        ('C107', 'Anjali devi', 'Indiranagar Branch-NO.12', '2023-11-20'),  
        ('C108', 'Vikram', 'HSR layout Branch-NO.27', '2024-02-10'),  
        ('C109', 'Divya', 'Bannerghatta Road Branch-NO.23', '2023-12-05'),  
        ('C110', 'Sneha', 'Yelahanka Branch-NO.9', '2023-11-25');
```

inserting values into customer

	Customer_Id	Customer_name	Customer_address	Reg_date
1	C101	Venkatesh	koramangala Branch- NO.48	2024-04-15
2	C102	Krishna	white Field Branch -NO.67	2023-10-20
3	C103	Rajesh	Jayanagar Branch -NO.22	2024-02-10
4	C104	Dipak	Malleeshwaram Branch -No.15	2023-11-05
5	C105	Rohit	Electronic city Branch-NO.12	2024-01-25
6	C106	Vikash	MG Road Branch-NO.45	2024-03-15
7	C107	Anjali devi	Indiranagar Branch-NO.12	2023-11-20
8	C108	Vikram	HSR layout Branch-NO.27	2024-02-10
9	C109	Divya	Bannerghatta Road Branch-NO.23	2023-12-05
10	C110	Sachin	Yel-halli Branch-NO.9	2023-11-25

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDX DMX XML XPS Execute ✓

LIBRARY

Object Explorer

NAGARAJU_N\SQLEXPRESS:
Databases
System Databases
Database Snapshots
credit_card
credit_transacions
laptop
LIBRARY
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Books
dbo.Branch
dbo.co
dbo.collage
dbo.Customer
dbo.customers
dbo.Employee
dbo.IssueStatus
dbo.orders
dbo.ravi
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security

Connect

CREATE TABLE Books

```
(  
    ISBN VARCHAR(30) PRIMARY KEY,  
    Book_title VARCHAR(80),  
    Category VARCHAR(30),  
    Rental_Price DECIMAL(10, 2),  
    status varchar(54),  
    Author VARCHAR(30),  
    Publisher VARCHAR(30),  
)
```

134 %

Messages

Commands completed successfully.

Completion time: 2024-06-29T16:44:33.3389039+05:30

Query executed successfully.

Ln 122 Col 1 Ch 1 INS

NAGARAJU_N\SQLEXPRESS01 (16... | NAGARAJU_N\nagar (59) LIBRARY | 00:00:00 0 rows

Step - 05 Creating the table "Books"

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDX DMX XML XPS Execute ✓

LIBRARY

Object Explorer

NAGARAJU_N\SQLEXPRESS:
Databases
System Databases
Database Snapshots
credit_card
credit_transacions
laptop
LIBRARY
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Books
dbo.Branch
dbo.co
dbo.collage
dbo.Customer
dbo.customers
dbo.Employee
dbo.IssueStatus
dbo.orders
dbo.ravi
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security

Connect

CREATE TABLE Books

```
(  
    ISBN VARCHAR(30) PRIMARY KEY,  
    Book_title VARCHAR(80),  
    Category VARCHAR(30),  
    Rental_Price DECIMAL(10, 2),  
    status varchar(54),  
    Author VARCHAR(30),  
    Publisher VARCHAR(30),  
)
```

134 %

Messages

Commands completed successfully.

Completion time: 2024-06-29T16:44:33.3389039+05:30

Query executed successfully.

Ln 134 Col 1 Ch 1 INS

NAGARAJU_N\SQLEXPRESS01 (16... | NAGARAJU_N\nagar (59) LIBRARY | 00:00:00 0 rows

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

LIBRARY

Object Explorer

Connect ▾

NAGARAJU_N\SQLEXPRESS:

- Databases
 - System Databases
 - Database Snapshots
 - credit_card
 - credit_transactions
 - laptop
- LIBRARY
 - Database Diagram
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.Books
 - dbo.Branch
 - dbo.co
 - dbo.collage
 - dbo.Customer
 - dbo.customers
 - dbo.Employee
 - dbo.IssueStatus
 - dbo.orders
 - dbo.ravi
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Query Store
 - Service Broker
 - Storage
 - Security
 - pavan
 - pk
 - pk_naranth

SQLQuery1.sql - N..RAJU_N\nagar (62) library project.sql...ARAJU_N\nagar (59)*

```
( '978-0-330-25864-8', 'Animal Farm', 'Classic', 5.50, 'yes', 'George Orwell', 'Penguin Books'),
('978-0-14-118776-1', 'One Hundred Years Solitude', 'Literary Fiction', 6.50, 'yes', 'Gabriel Garcia Marquez', 'Penguin Books'),
('978-0-525-47535-5', 'The Great Gatsby', 'Classic', 8.00, 'yes', 'Scott Fitzgerald', 'Scribner'),
('978-0-141-44171-6', 'Jane Eyre', 'Classic', 4.00, 'yes', 'Charlotte Bronte', 'Penguin Classics'),
('978-0-307-37840-1', 'The Alchemist', 'Fiction', 2.50, 'yes', 'Paulo Coelho', 'HarperOne'),
('978-0-679-76489-8', 'Harry Potter and the Sorcerers Stone', 'Fantasy', 7.00, 'yes', 'J.K. Rowling', 'Scholastic'),
('978-0-7432-4722-4', 'The Da Vinci Code', 'Mystery', 8.00, 'yes', 'Dan Brown', 'Doubleday'),
('978-0-09-957807-9', 'A Game of Thrones', 'Fantasy', 7.50, 'yes', 'George R.R. Martin', 'Bantam'),
('978-0-393-05081-8', 'A Peoples History of the United States', 'History', 9.00, 'yes', 'Howard Zinn', 'Harper Perennial');
```

Select * from Books

Results

ISBN	Book_title	Category	Rental_Price	status	Author	Publisher
1	A Game of Thrones	Fantasy	7.50	yes	George R.R. Martin	Bantam
2	One Hundred Years Solitude	Literary Fiction	6.50	yes	Gabriel Garcia Marquez	Penguin Books
3	Jane Eyre	Classic	4.00	yes	Charlotte Bronte	Penguin Classics
4	The Alchemist	Fiction	2.50	yes	Paulo Coelho	HarperOne
5	Animal Farm	Classic	5.50	yes	George Orwell	Penguin Books
6	A Peoples History of the United States	History	9.00	yes	Howard Zinn	Harper Perennial
7	The Great Gatsby	Classic	8.00	yes	Scott Fitzgerald	Scribner
8	The Catcher in the Rye	Classic	7.00	yes	J.D. Salinger	Little Brown and Company
9	Harry Potter and the Sorcerers Stone	Fantasy	7.00	yes	J.K. Rowling	Scholastic
10	The Da Vinci Code	Mystery	8.00	yes	Dan Brown	Doubleday

Messages

Query executed successfully.

NAGARAJU_N\SQLEXPRESS01 (16...) | NAGARAJU_N\nagar (59) | LIBRARY | 00:00:00 | 10 rows

Ready

Ln 123 Col 1 Ch 1 INS

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

LIBRARY

Object Explorer

Connect ▾

NAGARAJU_N\SQLEXPRESS:

- Databases
 - System Databases
 - Database Snapshots
 - credit_card
 - credit_transactions
 - laptop
- LIBRARY
 - Database Diagram
 - Tables
 - System Tables
 - FileTables
 - External Tables
 - Graph Tables
 - dbo.Books
 - dbo.Branch
 - dbo.co
 - dbo.collage
 - dbo.Customer
 - dbo.customers
 - dbo.Employee
 - dbo.IssueStatus
 - dbo.orders
 - dbo.ravi
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Query Store
 - Service Broker
 - Storage
 - Security
 - pavan
 - pk
 - pk_naranth

library project.sql...ARAJU_N\nagar (59)*

```
CREATE TABLE IssueStatus
(
    Issue_Id VARCHAR(10) PRIMARY KEY,
    Issued_customer VARCHAR(30),
    Issued_book_name VARCHAR(100),
    Issue_date DATE,
    Isbn_book VARCHAR(30),
    FOREIGN KEY (Issued_customer) REFERENCES customer(Customer_id),
    FOREIGN KEY (Isbn_book) REFERENCES books(ISBN),
);
```

Messages

Commands completed successfully.

Completion time: 2024-06-29T16:46:21.7113333+05:30

Query executed successfully.

NAGARAJU_N\SQLEXPRESS01 (16...) | NAGARAJU_N\nagar (59) | LIBRARY | 00:00:00 | 0 rows

Matches: (

Step - 06
Creating the table "issuestatus"

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDW DMW EMW DAW Execute Quick Launch (Ctrl+Q)

LIBRARY

Object Explorer

Connect

NAGARAJU_N\SQLEXPRESS01

- Databases
- System Databases
- Database Snapshots
- credit_card
- credit_transactions
- laptop
- LIBRARY
- Database Diagram
- Tables
- System Tables
- FileTables
- External Tables
- Graph Tables
- dbo.Books
- dbo.Branch
- dbo.co
- dbo.collage
- dbo.Customer
- dbo.customers
- dbo.Employee
- dbo.issueStatus
- dbo.orders
- dbo.ravi
- Views
- External Resources
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- pavan
- pk
- maranth

```

library project.sql..ARAJU_N\nagar (59)* - X
    ISBN_BOOK VARCHAR(50),
    FOREIGN KEY (Issued_customer) REFERENCES customer(Customer_id),
    FOREIGN KEY (Isbn_book) REFERENCES books(ISBN),
);
INSERT INTO IssueStatus(Issue_id,Issued_customer,Issued_book_name,Issue_date,Isbn_book)
VALUES('IS101', 'C101', 'The Catcher in the Rye', '2024-05-01', '978-0-553-29698-2'),
('IS102', 'C102', 'The Da Vinci Code', '2023-12-02', '978-0-330-25864-8'),
('IS103', 'C103', '1491: New Revelations of the Americas Before Columbus', '2024-02-20', '978-0-14-118776-1'),
('IS104', 'C104', 'Sapiens: A Brief History of Humankind', '2024-01-05', '978-0-525-47535-5'),
('IS105', 'C105', 'The Diary of a Young Girl', '2024-02-05', '978-0-141-44171-6');

Select * from IssueStatus;

```

Inserting values into issuestatus

Messages

(5 rows affected)

Completion time: 2024-06-29T16:47:30.9183459+05:30

Action needed for SSB-408-5076 Select to open the browser and connect.

Query executed successfully.

LN 82 Col 1 Ch 1 INS

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDW DMW EMW DAW Execute Quick Launch (Ctrl+Q)

LIBRARY

Object Explorer

Connect

NAGARAJU_N\SQLEXPRESS01

- Databases
- System Databases
- Database Snapshots
- credit_card
- credit_transactions
- laptop
- LIBRARY
- Database Diagram
- Tables
- System Tables
- FileTables
- External Tables
- Graph Tables
- dbo.Books
- dbo.Branch
- dbo.co
- dbo.collage
- dbo.Customer
- dbo.customers
- dbo.Employee
- dbo.issueStatus
- dbo.orders
- dbo.ravi
- Views
- External Resources
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- pavan
- pk
- maranth

```

library project.sql..ARAJU_N\nagar (59)* - X
    ISBN_BOOK VARCHAR(50),
    FOREIGN KEY (Issued_customer) REFERENCES customer(Customer_id),
    FOREIGN KEY (Isbn_book) REFERENCES books(ISBN),
);
INSERT INTO IssueStatus(Issue_id,Issued_customer,Issued_book_name,Issue_date,Isbn_book)
VALUES('IS101', 'C101', 'The Catcher in the Rye', '2024-05-01', '978-0-553-29698-2'),
('IS102', 'C102', 'The Da Vinci Code', '2023-12-02', '978-0-330-25864-8'),
('IS103', 'C103', '1491: New Revelations of the Americas Before Columbus', '2024-02-20', '978-0-14-118776-1'),
('IS104', 'C104', 'Sapiens: A Brief History of Humankind', '2024-01-05', '978-0-525-47535-5'),
('IS105', 'C105', 'The Diary of a Young Girl', '2024-02-05', '978-0-141-44171-6');

Select * from IssueStatus;

```

Results

Issue_Id	Issued_customer	Issued_book_name	Issue_date	Isbn_book	
1	IS101	C101	The Catcher in the Rye	2024-05-01	978-0-553-29698-2
2	IS102	C102	The Da Vinci Code	2023-12-02	978-0-330-25864-8
3	IS103	C103	1491: New Revelations of the Americas Before Columbus	2024-02-20	978-0-14-118776-1
4	IS104	C104	Sapiens: A Brief History of Humankind	2024-01-05	978-0-525-47535-5
5	IS105	C105	The Diary of a Young Girl	2024-02-05	978-0-141-44171-6

Query executed successfully.

LN 83 Col 1 Ch 1 INS

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query DMS DMW XLA XLSX Execute Quick Launch (Ctrl+Q)

LIBRARY

Object Explorer

library project.sql...ARAJU_N\nagar (59)*

```
Select * from IssueStatus;

CREATE TABLE ReturnStatus
(
    Return_id VARCHAR(10) PRIMARY KEY,
    Return_cust VARCHAR(30),
    Return_book_name VARCHAR(80), drop table returnstatus
    Return_date DATE,
    isbn_book2 VARCHAR(30),
    FOREIGN KEY (isbn_book2) REFERENCES books(isbn)
);
```

134 %

Messages

Commands completed successfully.

Completion time: 2024-06-29T16:48:52.6482426+05:30

Query executed successfully.

NAGARAJU_N\SQLEXPRESS01 (16...) NAGARAJU_N\nagar (59) LIBRARY 00:00:00 0 rows

Ln 95 Col 1 Ch 1 INS

Step -7
Creating the table "Returnstatus"

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59))* - Microsoft SQL Server Management Studio

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New Query DMS DMW XLA XLSX Execute Quick Launch (Ctrl+Q)

LIBRARY

Object Explorer

library project.sql...ARAJU_N\nagar (59)*

```
return_cust VARCHAR(30),
Return_book_name VARCHAR(80),
Return_date DATE,
isbn_book2 VARCHAR(30),
FOREIGN KEY (isbn_book2) REFERENCES books(isbn)
);

INSERT INTO ReturnStatus VALUES
('RS101', 'C101', 'The Catcher in the Rye', '2024-06-06', '978-0-553-29698-2'),
('RS102', 'C102', 'The Da Vinci Code', '2024-02-10', '978-0-7432-4722-4'),
('RS103', 'C105', 'Harry Potter and the Sorcerers Stone', '2024-05-15', '978-0-679-76489-8'),
('RS104', 'C108', 'The Histories', '2024-03-25', '978-0-14-118776-1'),
('RS105', 'C110', 'Jane Eyre', '2024-04-10', '978-0-141-44171-6');
```

134 %

Messages

(5 rows affected)

Completion time: 2024-06-29T16:50:08.1529023+05:30

Query executed successfully.

NAGARAJU_N\SQLEXPRESS01 (16...) NAGARAJU_N\nagar (59) LIBRARY 00:00:00 0 rows

Ln 102 Col 1 Ch 1 INS

inserting the values into Returnstatus

```

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio
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LIBRARY Execute LIBRARY Execute 
Object Explorer
Connect Object Explorer
NAGARAJU_N\SQLEXPRESS01
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    System Databases
    Database Snapshots
    credit_card
    credit_transacions
    laptop
  LIBRARY
    Database Diagram
    Tables
      System Tables
      FileTables
      External Tables
      Graph Tables
      dbo.Books
      dbo.Branch
      dbo.co
      dbo.collage
      dbo.Customer
      dbo.orders
      dbo.ravi
      Views
      External Resources
      Synonyms
      Programmability
      Query Store
      Service Broker
      Storage
      Security
      pavan
      pk
      orasath
  Matches: ( 
  library project.sql..ARAJU_N\nagar (59)* 
  return_book_name VARCHAR(80),
  return_date DATE,
  isbn_book2 VARCHAR(30),
  FOREIGN KEY (isbn_book2) REFERENCES books(isbn)
);
INSERT INTO ReturnStatus VALUES
('RS101', 'C101', 'The Catcher in the Rye', '2024-06-06', '978-0-553-29698-2'),
('RS102', 'C102', 'The Da Vinci Code', '2024-02-10', '978-0-7432-4722-4'),
('RS103', 'C105', 'Harry Potter and the Sorcerers Stone', '2024-05-15', '978-0-679-76489-8'),
('RS104', 'C108', 'The Histories', '2024-03-25', '978-0-14-118776-1'),
('RS105', 'C110', 'Jane Eyre', '2024-04-10', '978-0-141-44171-6');

Select * from ReturnStatus;

```

Results

Return_id	Return_cust	Return_book_name	Return_date	isbn_book2	
1	RS101	C101	The Catcher in the Rye	2024-06-06	978-0-553-29698-2
2	RS102	C102	The Da Vinci Code	2024-02-10	978-0-7432-4722-4
3	RS103	C105	Harry Potter and the Sorcerers Stone	2024-05-15	978-0-679-76489-8
4	RS104	C108	The Histories	2024-03-25	978-0-14-118776-1
5	RS105	C110	Jane Eyre	2024-04-10	978-0-141-44171-6

Query executed successfully.

Queries

1. Retrieve the books title, category ,and rental price of all available books.

```

library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (59)) - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
Quick Launch (Ctrl+Q) 
LIBRARY Execute LIBRARY Execute 
Object Explorer
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      dbo.Books
      dbo.Branch
      dbo.co
      dbo.collage
      dbo.Customer
      dbo.orders
      dbo.ravi
      Views
      External Resources
      Synonyms
      Programmability
      Query Store
      Service Broker
      Storage
      Security
      pavan
      pk
      orasath
  Matches: ( 
  library project.sql..ARAJU_N\nagar (59)* 
  --1 Retrieve the book title, category, and rental price of all available books.
  SELECT book_title, category, rental_price FROM books WHERE Status = 'Yes';

```

Results

book_title	category	rental_price
A Game of Thrones	Fantasy	7.50
One Hundred Years Solitude	Literary Fiction	6.50
Jane Eyre	Classic	4.00
The Alchemist	Fiction	2.50
Animal Farm	Classic	5.50
A Peoples History of the United States	History	9.00
The Great Gatsby	Classic	8.00
The Catcher in the Rye	Classic	7.00
Harry Potter and the Sorcerers Stone	Fantasy	7.00
The Da Vinci Code	Mystery	8.00

Query executed successfully.

2.List the employee names and their respective salaries in descending order of salary.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a database named 'NAGARAJU_N\SQLEXPRESS'. The central pane displays a query window with the following content:

```
-- 2. List the employee names and their respective salaries in descending order of salary.  
SELECT emp_name, salary FROM employee ORDER BY Salary DESC;
```

The results pane shows a table with 10 rows of data:

emp_name	salary
jashuva	62000.00
Kiran Kumar	60000.00
likhi	57000.00
Nagaraju	55000.00
pushpa	46000.00
Siva kumar	45000.00
Ramu	43000.00
David	42000.00
Vinay kumar	41000.00
prashanth	40000.00

At the bottom of the results pane, a message says "Query executed successfully."

3.Retrieve the book titles and the corresponding customers who have issued those books.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows a database named 'NAGARAJU_N\SQLEXPRESS'. The central pane displays a query window with the following content:

```
--3. Retrieve the book titles and the corresponding customers who have issued those books.  
SELECT issuestatus.Issued_book_name, customer.Customer_name FROM issuestatus INNER JOIN  
customer on issuestatus.Issued_customer = customer.Customer_Id;
```

The results pane shows a table with 5 rows of data:

Issued_book_name	Customer_name
The Catcher in the Rye	Venkatesh
The Da Vinci Code	Krishna
1491: New Revelations of the Americas Before Columbus	Rajesh
Sapiens: A Brief History of Humankind	Dipak
The Diary of a Young Girl	Rohit

At the bottom of the results pane, a message says "Query executed successfully."

4. Display the total count of books in each category.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'NAGARAJU_N\SQLEXPRESS'. The main pane displays a query window with the following content:

```
--4. Display the total count of books in each category.  
SELECT Category, COUNT(Book_title) as Total_count FROM books GROUP BY Category;
```

The results pane shows the output of the query:

Category	Total_count
History	1
Classic	4
Fantasy	2
Fiction	1
Literary Fiction	1
Mystery	1

At the bottom, a message indicates "Query executed successfully."

5. Retrieve the employee names and their position for the Employee whose salaries are above RS.50,000.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'NAGARAJU_N\SQLEXPRESS'. The main pane displays a query window with the following content:

```
--5. Retrieve the employee names and their positions for the employees whose salaries are above Rs.50,000.  
SELECT emp_name, position FROM employee WHERE Salary > 50000;
```

The results pane shows the output of the query:

emp_name	position
Kiran Kumar	Manager
Nagaraju	Librarian
jashvna	Manager
likhi	Librarian

At the bottom, a message indicates "Query executed successfully."

6. List the customer names who registered before 2024-04-03 and have not issued any books yet.

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

```
--6. List the customer names who registered before 2024-04-03 and have not issued any books yet.  
SELECT customer_name FROM customer WHERE Reg_date < '2024-04-03' AND Customer_Id NOT IN  
(SELECT issued_customer FROM issuestatus);
```

The results pane displays a table with the following data:

customer_name
Virat kohli
Anjali devi
Vikram
Diya
Sneha

At the bottom of the interface, a message indicates "Query executed successfully."

7. Display the branch numbers and the total count of employees in each branch.

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

```
-- 7. Display the branch numbers and the total count of employees in each branch  
Select Branch_no, count(emp_id) as Total_count from employee group by Branch_no;
```

The results pane displays a table with the following data:

Branch_no	Total_count
B001	4
B002	3
B003	2
B004	1

At the bottom of the interface, a message indicates "Query executed successfully."

8. Display the names of customers who have issued books in the month of February 2024.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'NAGARAJU_N\SQLEXPRESS01'. The main pane displays a query window titled 'SQLQuery1.sql' with the following SQL code:

```
--8. Display the names of customers who have issued books in the month of February 2024.  
SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON  
customer.Customer_Id = issuestatus.Issued_customer WHERE issuestatus.Issue_date >= '2024-02-01' AND  
issuestatus.Issue_date <= '2024-02-28';
```

The results pane shows the output:

Customer_name
Rajesh
Rohit

A status bar at the bottom indicates 'Query executed successfully.' and other details like 'Ln 227' and 'INS'.

9. Retrieve book title from the book table containing the category 'classic'.

The screenshot shows the Microsoft SQL Server Management Studio interface. The Object Explorer on the left shows the database structure for 'NAGARAJU_N\SQLEXPRESS01'. The main pane displays a query window titled 'library projectsql...ARAJU_N\nagar (58)*' with the following SQL code:

```
--9. Retrieve book_title from book the book table containing the category 'classic'.  
SELECT book_title FROM books WHERE Category = 'classic';
```

The results pane shows the output:

book_title
Jane Eyre
Animal Farm
The Great Gatsby
The Catcher in the Rye

A status bar at the bottom indicates 'Query executed successfully.' and other details like 'Ln 187' and 'INS'.

10. Retrieve the branch number and along with the count of employees for branches having more than 5 employees.

The screenshot shows the Microsoft SQL Server Management Studio interface. In the center, there is a query editor window titled 'library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (57))*'. The code in the editor is:

```
SELECT customer.Customer_name FROM customer INNER JOIN issuestatus ON
customer.Customer_Id = issuestatus.Issued_customer WHERE issuestatus.Issue_date >= '2024-02-01' AND
issuestatus.Issue_date <= '2024-02-28';

--9. Retrieve book_title from book the book table containing the category 'classic'.

SELECT book_title FROM books WHERE Category = 'classic';

--10. Retrieve the branch numbers and along with the count of employees for branches having more than 5 empl

SELECT Branch_no,COUNT(emp_id) AS emp_id FROM employee GROUP BY branch_no HAVING COUNT(Emp_id) > 2;
```

Below the editor, a 'Results' tab is open, showing the following data:

Branch_no	emp_id
1	8001
2	8002

At the bottom of the screen, a status bar indicates: 'Query executed successfully.' and 'NAGARAJU_N\SQLEXPRESS01 (16... | NAGARAJU_N\nagar (57) | LIBRARY | 00:00:00 | 2 rows'.

11. Retrieve the highest rental price from books table ?

The screenshot shows the Microsoft SQL Server Management Studio interface. In the center, there is a query editor window titled 'library project.sql - NAGARAJU_N\SQLEXPRESS01.LIBRARY (NAGARAJU_N\nagar (57))*'. The code in the editor is:

```
--11.Retrieve the highest rental price from books table.

select * from books where Rental_price in (select max(rental_price) from books where rental_price<
(select max(rental_price) from books));
```

Below the editor, a 'Results' tab is open, showing the following data:

ISBN	Book_title	Category	Rental_Price	status	Author	Publisher	
1	978-0-393-05081-8	A Peoples History of the United States	History	9.00	yes	Howard Zinn	Harper Perennial

At the bottom of the screen, a status bar indicates: 'Query executed successfully.' and 'NAGARAJU_N\SQLEXPRESS01 (16... | NAGARAJU_N\nagar (57) | LIBRARY | 00:00:00 | 1 rows'.

12.How do you create a store procedure in SQL server, execute a store procedure and delete store procedure on it .

--12.How do you create a store procedure in SQL server,execute a store procedure and Delete store procedure on it.

```
--# Creation of store procedure ;  
  
Create procedure Sp_GetEmployeesalary  
(  
    @Emp_name varchar(20),  
    @Salary Decimal(8,2)  
)  
AS  
Begin  
    select * from employee where Emp_name = @Emp_name  
    Select * from Employee where salary >=@salary  
END;  
  
--Execution of astore procedure;
```

Commands completed successfully.
Completion time: 2024-07-17T15:02:33.6463755+05:30

Query executed successfully.

```
(  
    @Emp_name varchar(20),  
    @Salary Decimal(8,2)  
)  
AS  
Begin  
    select * from employee where Emp_name = @Emp_name  
    Select * from Employee where salary >=@salary  
END;  
  
--Execution of astore procedure;  
  
Execute Sp_GetEmployeesalary 'Nagaraju', 2000;  
  
--Deleting a store procedure;
```

Emp_id	Emp_name	Branch_no	Position	Salary
E103	Nagaraju	B001	Librarian	55000.00

Emp_id	Emp_name	Branch_no	Position	Salary
1 E101	Kiran Kumar	B001	Manager	60000.00
2 E102	Siva kumar	B001	Clerk	45000.00
3 E103	Nagaraju	B001	Librarian	55000.00
4 E104	prashant	B001	Assistant	40000.00
5 E105	David	B002	Assistant	42000.00
6 E106	Ramu	B003	Assistant	43000.00
7 E107	jashuva	B002	Manager	62000.00
8 E108	pushpa	B002	Clerk	46000.00
9 E109	likhi	B004	Librarian	57000.00
10 E110	Vinay kumar	B003	Assistant	41000.00

Query executed successfully.

13. Find the highest_ranked Employees in each Branch_no.

The screenshot shows the Microsoft SQL Server Management Studio interface. The title bar indicates the connection is to 'NAGARAJU_N\SQLEXPRESS01' on 'NAGARAJU_N\nagar (65)'. The Object Explorer on the left shows the database structure. In the center, a query window displays the following T-SQL code:

```
--13.Find the highest_ranked employees in each Branch_no

with Ranked_employees As
(
    Select
        Branch_no,
        salary,
        position,
        Dense_rank()over( partition by Branch_no order by salary desc)
        As rank from Employee
)
select
    Branch_no,
    Salary,
```

The results pane shows a table with four rows of data:

	Branch_no	Salary	position
1	B001	60000.00	Manager
2	B002	62000.00	Manager
3	B003	43000.00	Assistant
4	B004	57000.00	Librarian

At the bottom, a message bar says 'Query executed successfully.'

*****END*****

