

Employee Hierarchy Generation Project Output

User ID : CT_CSI_SQ_3376

The image displays three sequential screenshots of the SQL Server Enterprise Manager interface, showing the execution of T-SQL scripts for an employee hierarchy generation project. The interface includes a menu bar, a toolbar, and a central query editor window. The left pane shows the Object Explorer with the 'master' database selected. The right pane shows the Messages window with execution details.

First Screenshot: The query editor shows the initial setup script. It starts with a comment 'Employee Hierarchy Generation Project Submission' and 'User ID : CT_CSI_SQ_3376'. The script includes a 'DROP TABLE IF EXISTS EMPLOYEE_MASTER;' statement, followed by a 'CREATE TABLE EMPLOYEE_MASTER;' statement with columns 'EmployeeID' (VARCHAR(20)), 'ReportingTo' (NVARCHAR(MAX)), and 'EmailID' (NVARCHAR(MAX)). A sample insertion is shown with the value 'john.doe@example.com'.

Second Screenshot: The query editor shows a large block of 'INSERT INTO EMPLOYEE_MASTER VALUES' statements. These statements insert 13 rows of data, each with a unique 'EmployeeID' and a corresponding 'EmailID' (e.g., 'john.doe@example.com', 'jane.smith@example.com', etc.). The Messages window shows 'Commands completed successfully.' and 'Completion time: 2025-06-16T20:57:57.3330148+05:30'.

Third Screenshot: The query editor shows a script to create a function. It starts with 'DROP FUNCTION IF EXISTS dbo LAST_NAME;' followed by 'GO'. Then, it defines a function 'CREATE FUNCTION dbo LAST_NAME (@email NVARCHAR(MAX))' that returns 'NVARCHAR(MAX)'. The function body uses 'RETURN SUBSTRING' to extract the last name from the email address using 'CHARINDEX' to find the '@' symbol. The Messages window shows 'Commands completed successfully.' and 'Completion time: 2025-06-16T20:58:40.9016688+05:30'.

Object Explorer

Connect - [Server] [Database] [Security] [Server Objects] [Replication] [Management] [XEvent Profiler]

master

EmployeeHier...hwarya (65)

```
62 DROP FUNCTION IF EXISTS dbo.FIRST_NAME;
63 GO
64
65 CREATE FUNCTION dbo.FIRST_NAME (@email NVARCHAR(MAX))
66 RETURNS NVARCHAR(MAX)
67 AS
68 BEGIN
69     RETURN LEFT(@email, CHARINDEX('.', @email) - 1)
70 END
71 GO
72
73 DROP TABLE IF EXISTS Employee_Hierarchy;
74 CREATE TABLE Employee_Hierarchy (
75     EMPLOYEEID VARCHAR(20),
76     REPORTINGTO NVARCHAR(MAX),
77     PRIMARY KEY (EMPLOYEEID))
```

121 %

Messages

Commands completed successfully.

Completion time: 2025-06-16 20:59:02.3915220+05:30

121 %

No issues found

(local)\SQLEXPRESS (16.0 RTM) LAPTOP-7VHM2E8U\Aishwa... master 00:00:00 0 rows

Object Explorer

Connect - [Server] [Database] [Security] [Server Objects] [Replication] [Management] [XEvent Profiler]

master

EmployeeHier...hwarya (65)

```
83 CREATE OR ALTER PROCEDURE SP_hierarchy
84 AS
85 BEGIN
86     -- Clear the target table
87     TRUNCATE TABLE Employee_Hierarchy;
88
89     -- Recursive CTE to build the hierarchy
90     WITH EmployeeCTE AS (
91         -- Base Case: Top-level employees
92         SELECT
93             EmployeeID,
94             ReportingTo,
95             EmailID,
96             1 AS Level
97         FROM EMPLOYEE_MASTER
```

121 %

Messages

Commands completed successfully.

Completion time: 2025-06-16 20:59:17.5726865+05:30

121 %

No issues found

(local)\SQLEXPRESS (16.0 RTM) LAPTOP-7VHM2E8U\Aishwa... master 00:00:00 0 rows

SQL Server Enterprise Edition (64-bit) - Solution1

Object Explorer: Connect - SQLSERVER (SQL Server 16.0.1000 - LAPTOP-7VHM2E8U) - master

Query Editor (SQL):

```
EXEC SP_hierarchy;
SELECT * FROM Employee_Hierarchy ORDER BY LEVEL, EMPLOYEEID;
```

Results (30 rows):

EMPLOYEEID	REPORTINGTO	EMAIL	LEVEL	FIRSTNAME	LASTNAME
1	H1	john.doe@example.com	1	john	doe
2	H2	jane.smith@example.com	1	jane	smith
3	H3	alice.jones@example.com	2	alice	jones
4	H4	bob.white@example.com	2	bob	white
5	H5	charlie.brown@example.com	3	charlie	brown
6	H6	david.green@example.com	3	david	green
7	H7	emily.gray@example.com	3	emily	gray
8	H8	frank.wilson@example.com	3	frank	wilson
9	H10	hannah.taylor@example.com	4	hannah	taylor
10	H11	irene.martin@example.com	4	irene	martin
11	H12	jack.roberts@example.com	4	jack	roberts
12	H13	kate.evans@example.com	4	kate	evans
13	H14	laura.hall@example.com	4	laura	hall
14	H15	mike.anderson@example.com	4	mike	anderson
15	H16	natalie.clark@example.com	4	natalie	clark
16	H8	george.harris@example.com	4	george	harris
17	H17	oliver.davis@example.com	5	oliver	davis
18	H18	peter.edwards@example.com	5	peter	edwards
19	H19	quinn.fisher@example.com	5	quinn	fisher
20	H20	rachel.garcia@example.com	5	rachel	garcia
21	H21	sarah.hernandez@example.com	5	sarah	hernandez
22	H22	thomas.lee@example.com	5	thomas	lee
23	H23	ursula.lopez@example.com	5	ursula	lopez
24	H24	victor.martinez@example.com	5	victor	martinez
25	H25	william.nguyen@example.com	5	william	nguyen
26	H26	xavier.ortiz@example.com	5	xavier	ortiz
27	H27	yvonne.perez@example.com	5	yvonne	perez
28	H28	zoe.quinn@example.com	5	zoe	quinn
29	H29	adam.robinson@example.com	5	adam	robinson
30	H30	barbara.smith@example.com	5	barbara	smith

Query executed successfully. (local)\SQLSERVER (16.0 RTM) LAPTOP-7VHM2E8U\Aishwa... master 00:00:00 30 rows