CIS 430: Lab Assignment 5

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Object: 2 parts; View and Stored Procedure using Cursor

* 1. **View Creation from SQL**

-- Create the view VDept\_Budget

CREATE VIEW VDept\_Budget AS

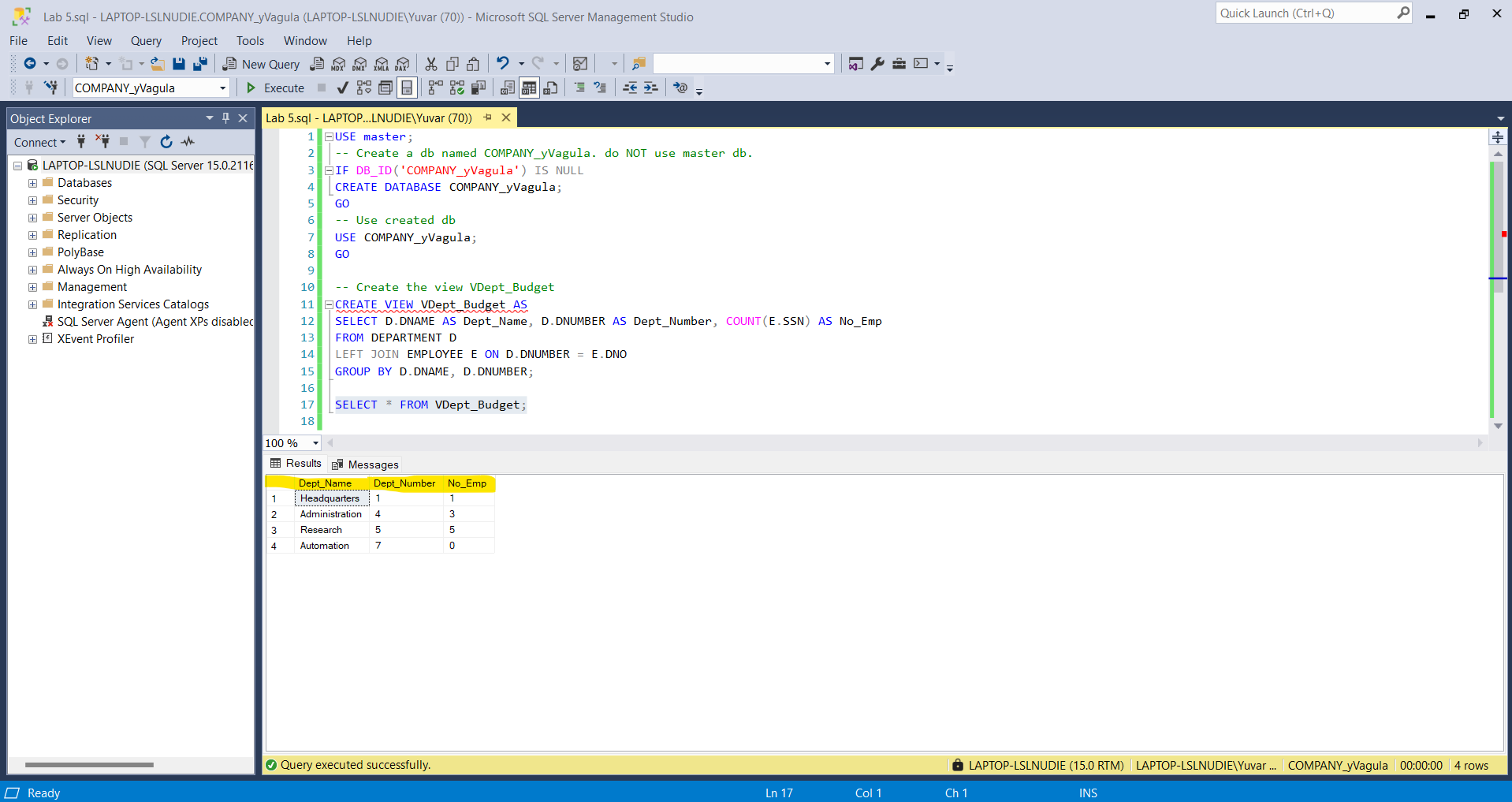
SELECT D.DNAME AS Dept\_Name, D.DNUMBER AS Dept\_Number, COUNT(E.SSN) AS No\_Emp

FROM DEPARTMENT D

LEFT JOIN EMPLOYEE E ON D.DNUMBER = E.DNO

GROUP BY D.DNAME, D.DNUMBER;

SELECT \* FROM VDept\_Budget;

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**1-2) Table creation from the same SQL as in 1.1**

CREATE TABLE Dept\_Budget (

Dept\_Name VARCHAR(15),

Dept\_Number INT,

No\_Emp INT

);

INSERT INTO Dept\_Budget (Dept\_Name, Dept\_Number, No\_Emp)

SELECT D.DNAME AS Dept\_Name, D.DNUMBER AS Dept\_Number, COUNT(E.SSN) AS No\_Emp

FROM DEPARTMENT D

LEFT JOIN EMPLOYEE E ON D.DNUMBER = E.DNO

GROUP BY D.DNAME, D.DNUMBER;

SELECT \* FROM Dept\_Budget;

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**2.**

**2-1 & 2-1) Adding myself and another employee, then showing the View VDEPT\_BUDGET content again.**

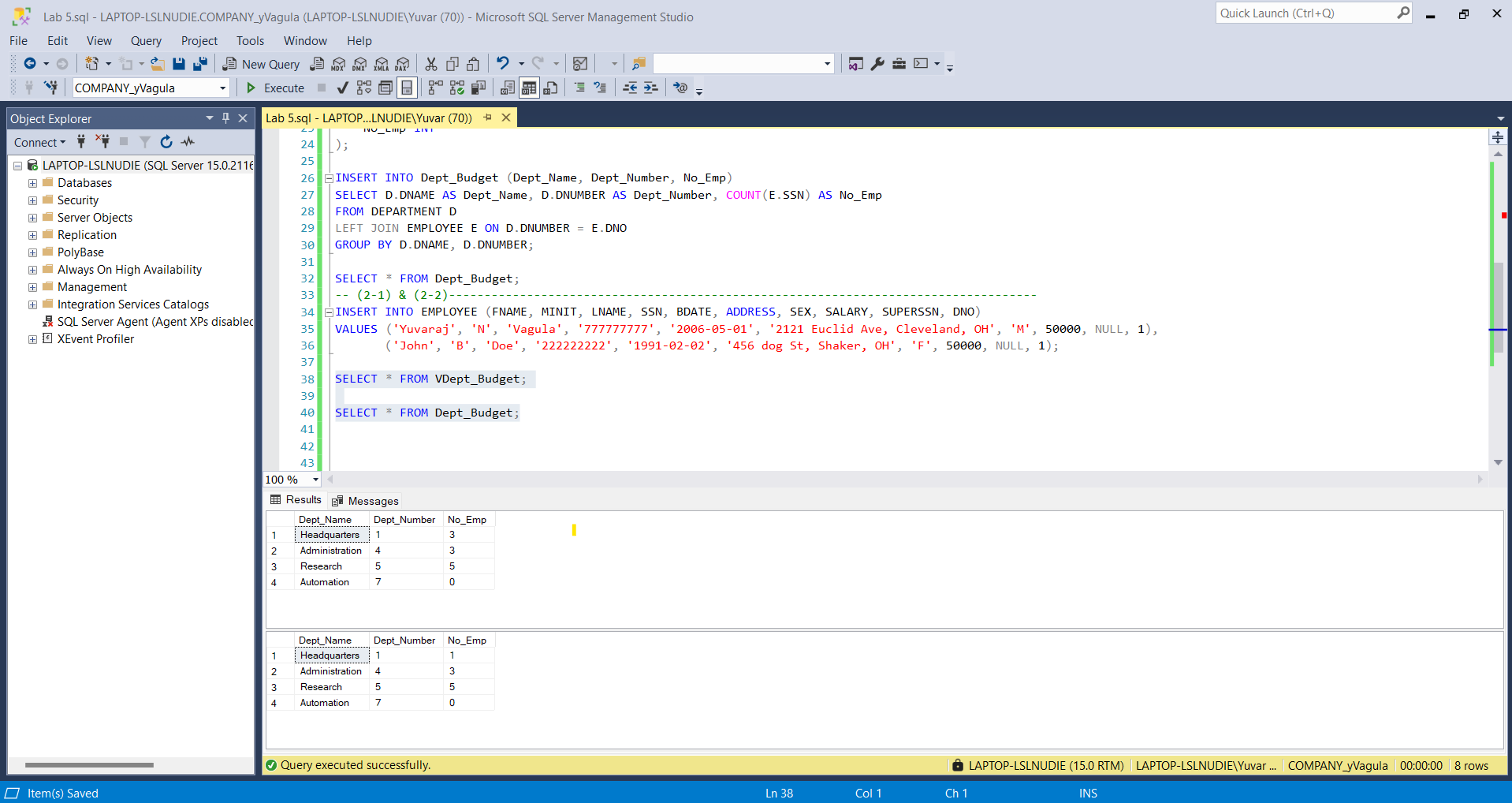
INSERT INTO EMPLOYEE (FNAME, MINIT, LNAME, SSN, BDATE, ADDRESS, SEX, SALARY, SUPERSSN, DNO)

VALUES ('Yuvaraj', 'N', 'Vagula', '777777777', '2006-05-01', '2121 Euclid Ave, Cleveland, OH', 'M', 50000, NULL, 1),

('John', 'B', 'Doe', '222222222', '1991-02-02', '456 dog St, Shaker, OH', 'F', 50000, NULL, 1);

SELECT \* FROM VDept\_Budget;

SELECT \* FROM Dept\_Budget;



**3) Difference in Changing the Scheme of the Existing View and the Table**

-- Drop the existing view if it exists

IF OBJECT\_ID('VDept\_Budget', 'V') IS NOT NULL

DROP VIEW VDept\_Budget;

GO

-- Create the view with the additional columns

CREATE VIEW VDept\_Budget AS

SELECT D.DNAME AS Dept\_Name, D.DNUMBER AS Dept\_Number, COUNT(E.SSN) AS No\_Emp, SUM(E.SALARY) AS Sum\_Salary, AVG(E.SALARY) AS Ave\_Salary

FROM DEPARTMENT D

LEFT JOIN EMPLOYEE E ON D.DNUMBER = E.DNO

GROUP BY D.DNAME, D.DNUMBER;

GO

-- Display the content of the updated view

SELECT \* FROM VDept\_Budget;

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-- Drop the existing table if it exists

DROP TABLE IF EXISTS Dept\_Budget;

GO

-- Create the table Dept\_Budget with the new schema

CREATE TABLE Dept\_Budget (

Dept\_Name VARCHAR(15),

Dept\_Number INT,

No\_Emp INT,

Sum\_Salary DECIMAL(10, 2),

Ave\_Salary DECIMAL(10, 2)

);

GO

-- Populate the table Dept\_Budget with the new schema

INSERT INTO Dept\_Budget (Dept\_Name, Dept\_Number, No\_Emp, Sum\_Salary, Ave\_Salary)

SELECT D.DNAME AS Dept\_Name, D.DNUMBER AS Dept\_Number, COUNT(E.SSN) AS No\_Emp, SUM(E.SALARY) AS Sum\_Salary, AVG(E.SALARY) AS Ave\_Salary

FROM DEPARTMENT D

LEFT JOIN EMPLOYEE E ON D.DNUMBER = E.DNO

GROUP BY D.DNAME, D.DNUMBER;

GO

-- Display the content of the updated table

SELECT \* FROM Dept\_Budget;

GO

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**Part 2) Stored Procedure and Cursor**

-- Drop the existing stored procedure if it exists

DROP PROCEDURE IF EXISTS SP\_Report\_NEW\_Budget;

GO

-- Create the stored procedure

CREATE PROCEDURE SP\_Report\_NEW\_Budget

AS

BEGIN

-- Create the new table NEW\_Dept\_Budget

CREATE TABLE NEW\_Dept\_Budget (

Dept\_No INT,

Dept\_Name CHAR(30),

COUNT\_Emp INT,

New\_SUM\_Salary INT,

New\_AVE\_Salary INT

);

-- Check if the view VDept\_Budget is empty

IF (SELECT COUNT(\*) FROM VDept\_Budget) > 0

BEGIN

-- Declare cursor for the view VDept\_Budget

DECLARE cur CURSOR FOR

SELECT Dept\_Number, Dept\_Name, No\_Emp, Sum\_Salary, Ave\_Salary

FROM VDept\_Budget;

-- Declare variables to hold the cursor data

DECLARE @Dept\_No INT, @Dept\_Name CHAR(30), @COUNT\_Emp INT, @Sum\_Salary INT, @Ave\_Salary INT;

DECLARE @New\_SUM\_Salary INT, @New\_AVE\_Salary INT;

-- Open the cursor

OPEN cur;

-- Fetch the cursor data

FETCH NEXT FROM cur INTO @Dept\_No, @Dept\_Name, @COUNT\_Emp, @Sum\_Salary, @Ave\_Salary;

-- Loop through the cursor data

WHILE @@FETCH\_STATUS = 0

BEGIN

-- Calculate the new sum and average salary based on department number

IF @Dept\_No = 1

SET @New\_SUM\_Salary = @Sum\_Salary \* 1.1;

ELSE IF @Dept\_No = 4

SET @New\_SUM\_Salary = @Sum\_Salary \* 1.2;

ELSE IF @Dept\_No = 5

SET @New\_SUM\_Salary = @Sum\_Salary \* 1.3;

ELSE IF @Dept\_No = 7

SET @New\_SUM\_Salary = @Sum\_Salary \* 1.4;

ELSE

SET @New\_SUM\_Salary = @Sum\_Salary;

SET @New\_AVE\_Salary = @New\_SUM\_Salary / @COUNT\_Emp;

-- Insert data into the new table

INSERT INTO NEW\_Dept\_Budget (Dept\_No, Dept\_Name, COUNT\_Emp, New\_SUM\_Salary, New\_AVE\_Salary)

VALUES (@Dept\_No, @Dept\_Name, @COUNT\_Emp, @New\_SUM\_Salary, @New\_AVE\_Salary);

-- Fetch the next row

FETCH NEXT FROM cur INTO @Dept\_No, @Dept\_Name, @COUNT\_Emp, @Sum\_Salary, @Ave\_Salary;

END;

-- Close and deallocate the cursor

CLOSE cur;

DEALLOCATE cur;

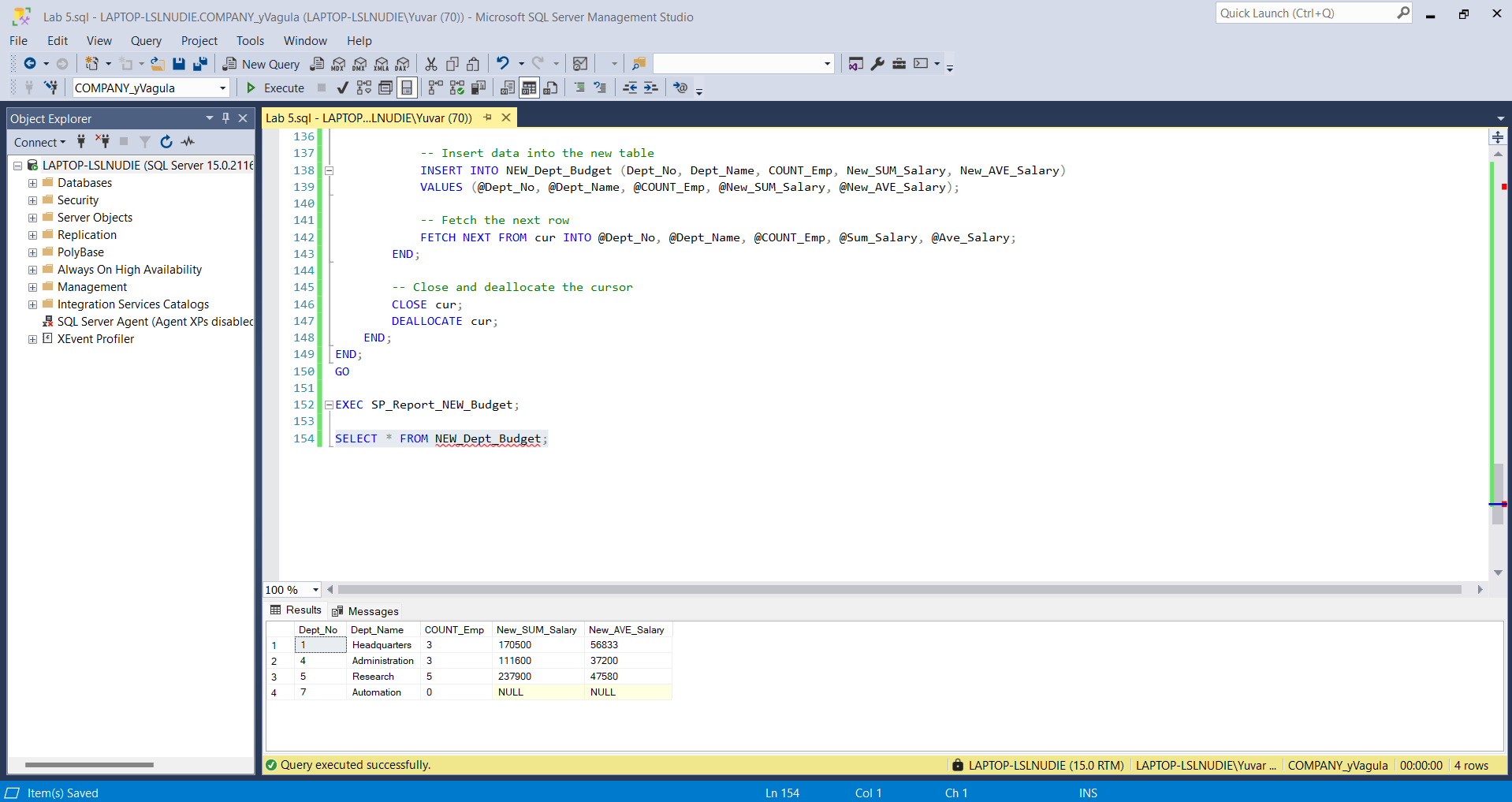
END;

END;

GO

EXEC SP\_Report\_NEW\_Budget;

SELECT \* FROM NEW\_Dept\_Budget;

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**PROOF OF PATH AND FILENAME**

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