**Note:** refer Assignment1 for Works\_on and Project table etc.

1. Create a non-clustered index for the enter\_date column of the works\_on table.

Sixty percent of each index leaf page should be filled.

--1. Create a non-clustered index for the enter\_date column of the works\_on table. Sixty percent of each index leaf page should be filled.

IF EXISTS (SELECT name FROM sys.indexes

WHERE name = N'IX\_Work\_Enterdate')

DROP INDEX IX\_Work\_Enterdate ON [dbo].[Works\_on];

GO

CREATE NONCLUSTERED INDEX IX\_Work\_Enterdate

ON [dbo].[Works\_on] (enter\_date)

WITH (FILLFACTOR = 60);

Go

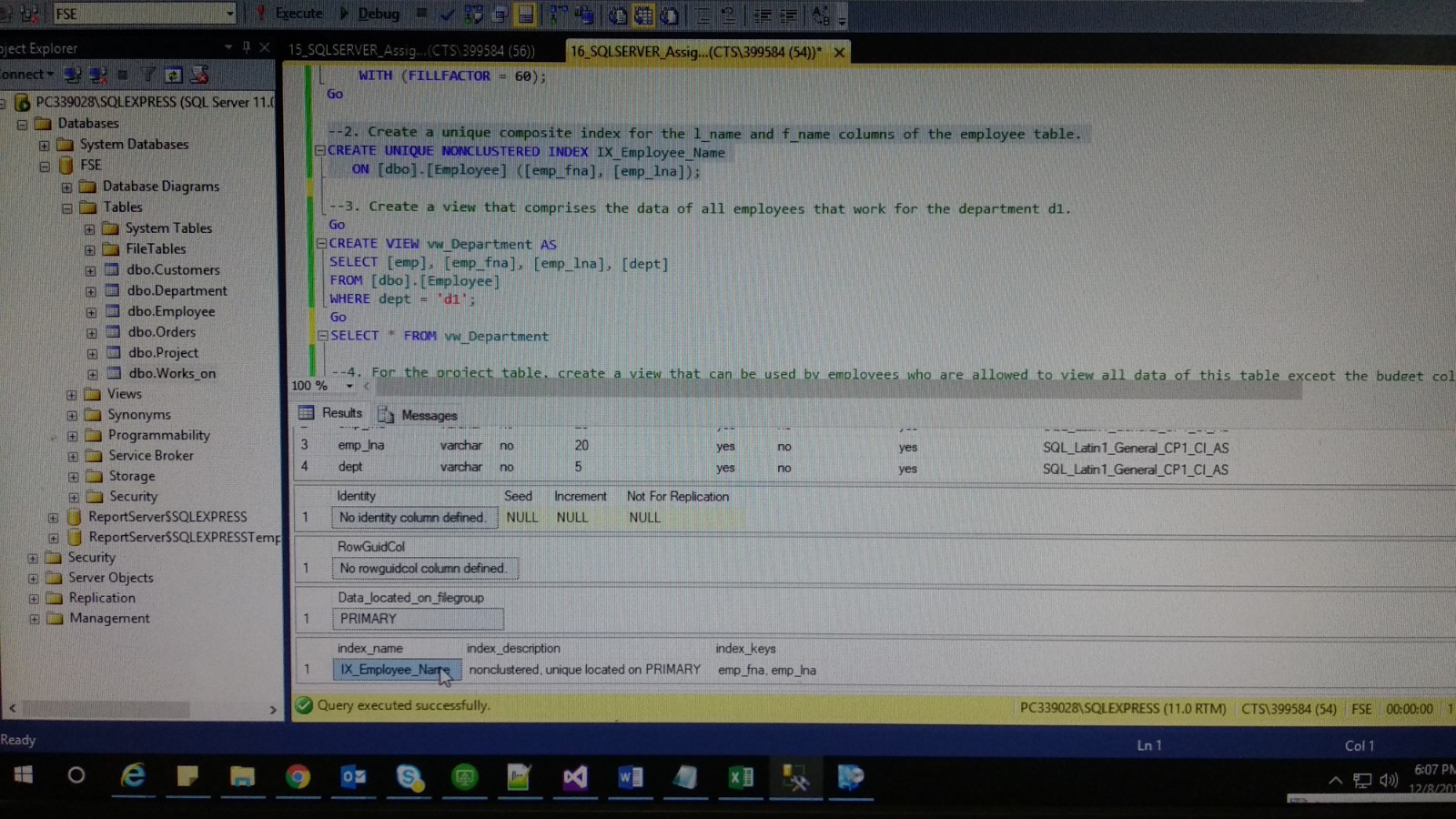


1. Create a unique composite index for the l\_name and f\_name columns of the employee table.

--2. Create a unique composite index for the l\_name and f\_name columns of the employee table.

CREATE UNIQUE NONCLUSTERED INDEX IX\_Employee\_Name

ON [dbo].[Employee] ([emp\_fna], [emp\_lna]);



1. Create a view that comprises the data of all employees that work for the department d1.

--3. Create a view that comprises the data of all employees that work for the department d1.

Go

CREATE VIEW vw\_Department AS

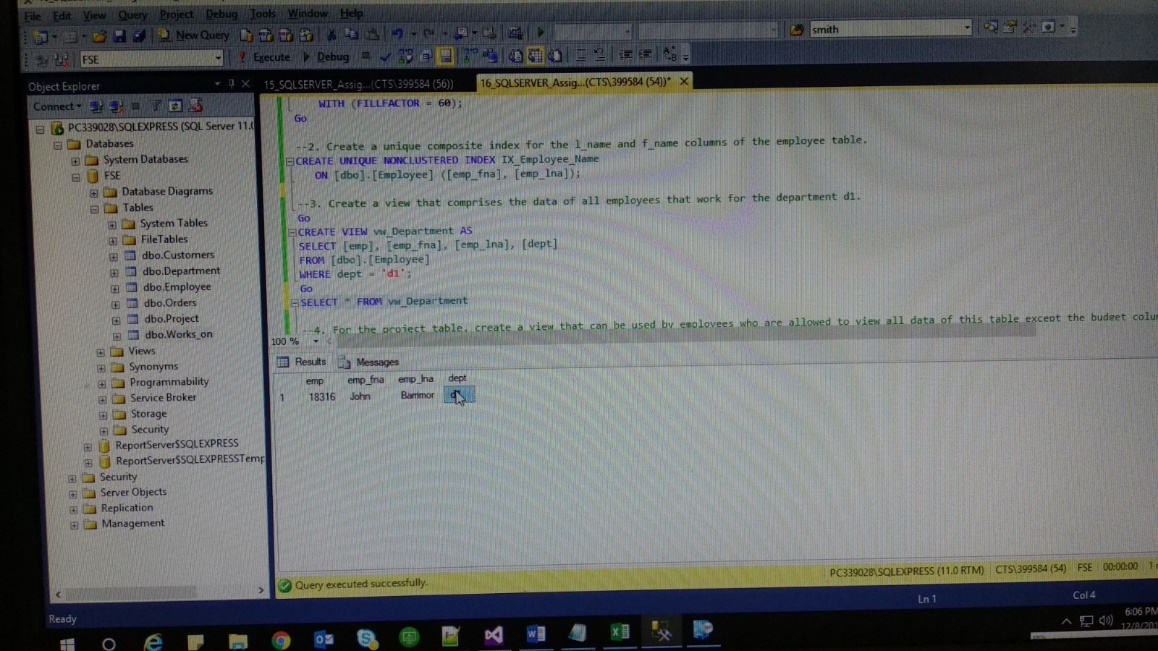
SELECT [emp], [emp\_fna], [emp\_lna], [dept]

FROM [dbo].[Employee]

WHERE dept = 'd1';

Go

SELECT \* FROM vw\_Department



1. For the project table, create a view that can be used by employees who are allowed to view all data of this table except the budget column.

--4. For the project table, create a view that can be used by employees who are allowed to view all data of this table except the budget column

Go

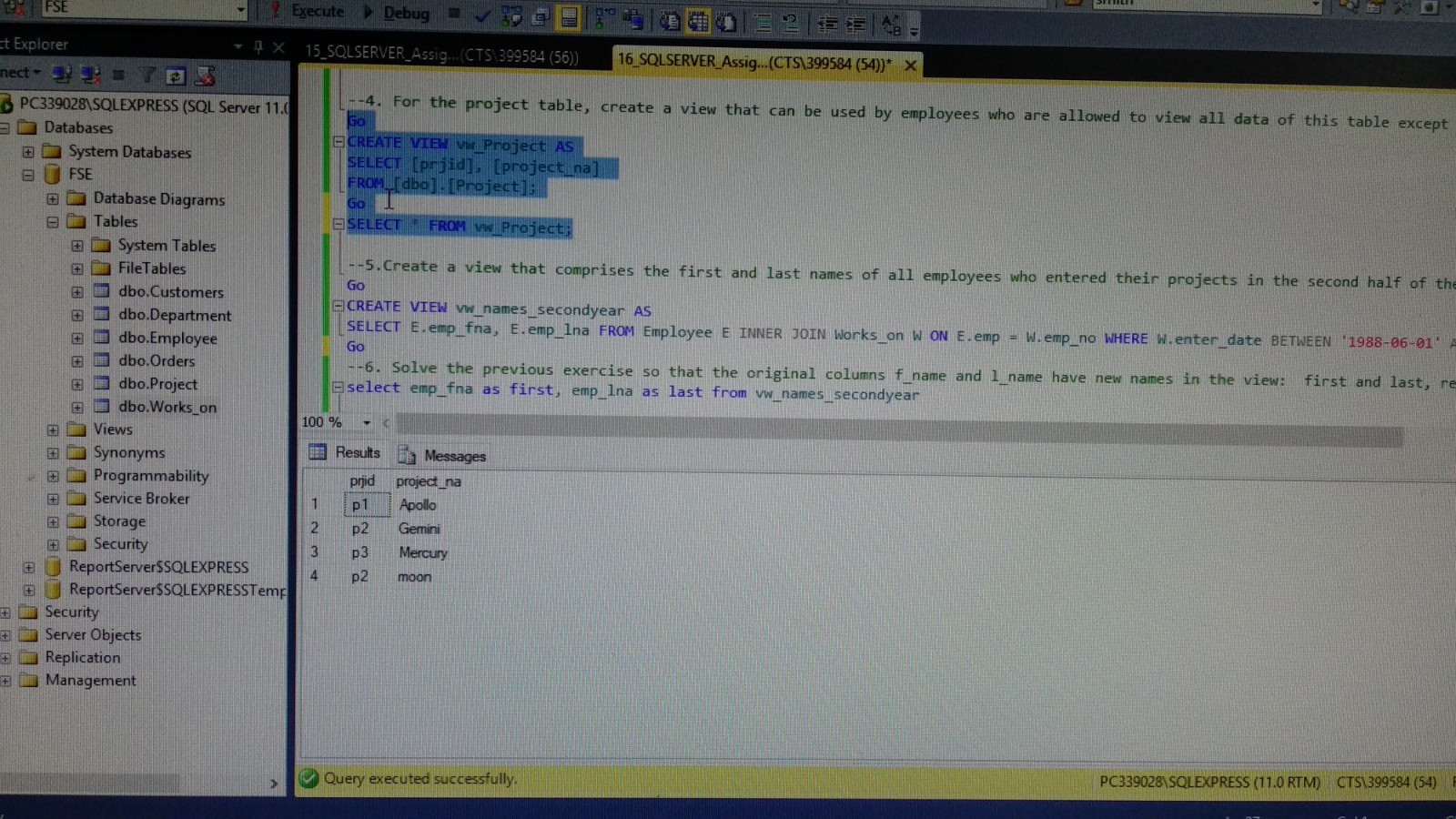
CREATE VIEW vw\_Project AS

SELECT [prjid], [project\_na]

FROM [dbo].[Project];

Go

SELECT \* FROM vw\_Project;



1. Create a view that comprises the first and last names of all employees who entered their projects in the second half of the year 1988.

--5.Create a view that comprises the first and last names of all employees who entered their projects in the second half of the year 1988.

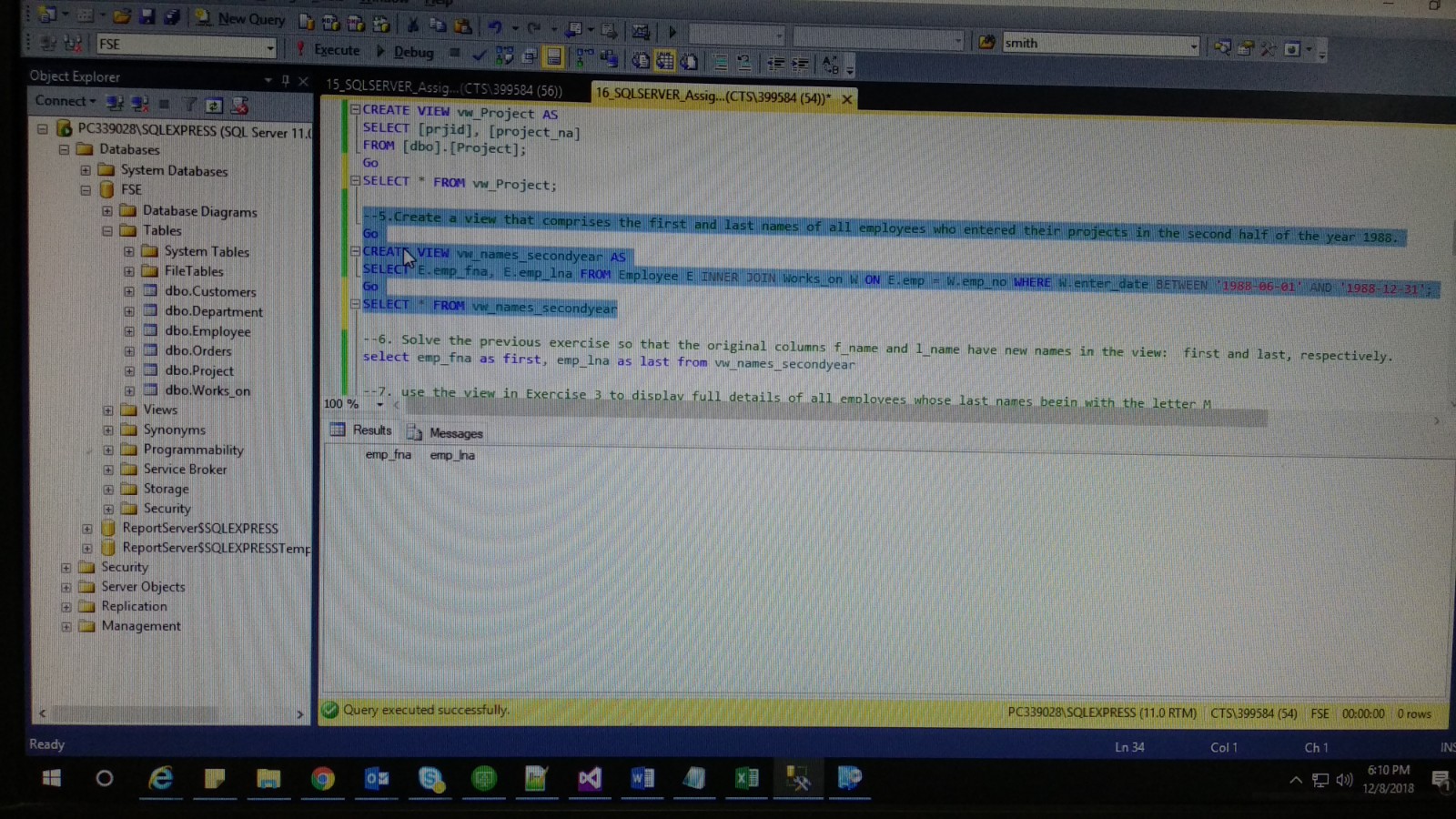
Go

CREATE VIEW vw\_names\_secondyear AS

SELECT E.emp\_fna, E.emp\_lna FROM Employee E INNER JOIN Works\_on W ON E.emp = W.emp\_no WHERE W.enter\_date BETWEEN '1988-06-01' AND '1988-12-31';

Go

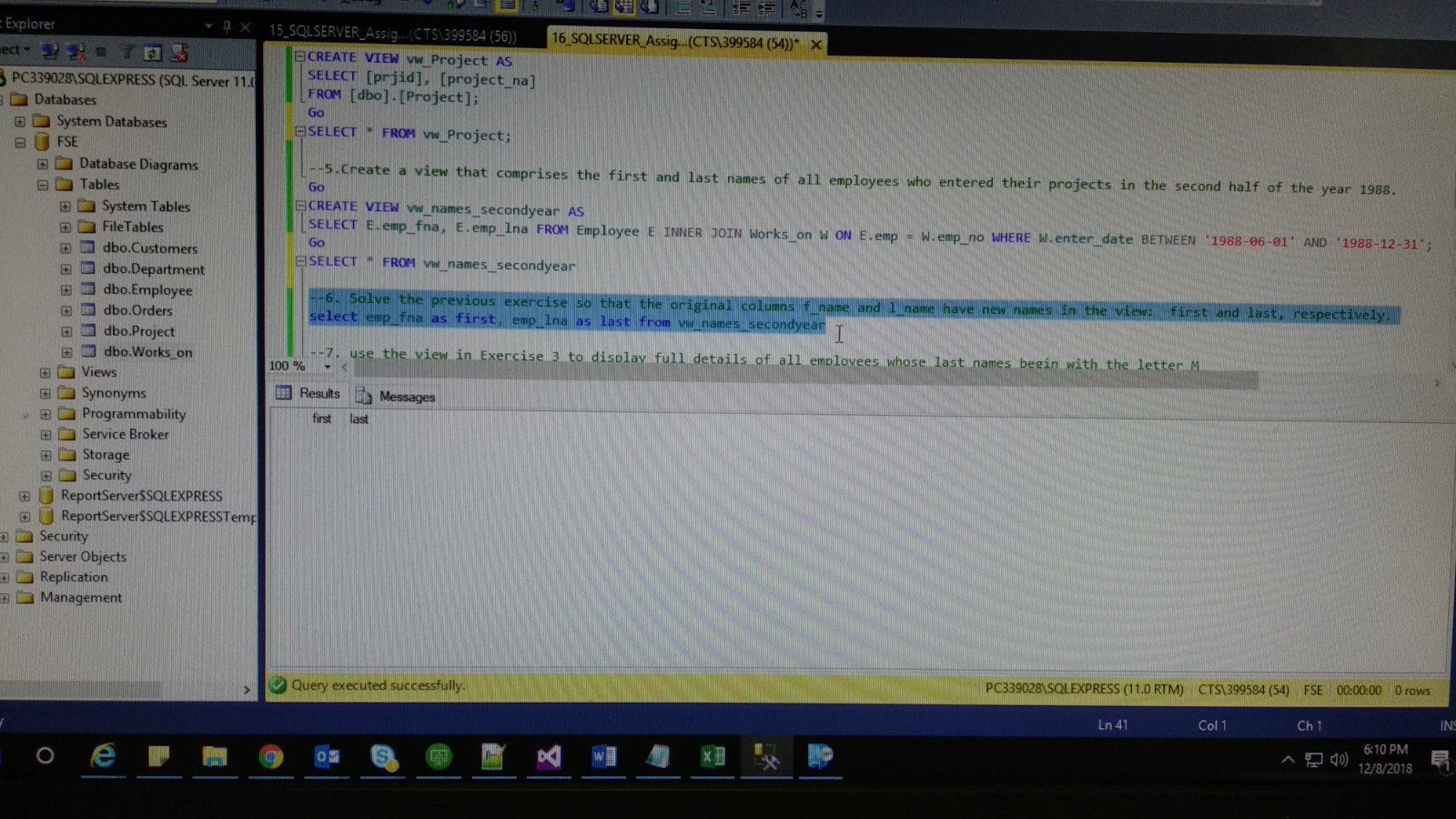
SELECT \* FROM vw\_names\_secondyear



1. Solve the previous exercise so that the original columns f\_name and l\_name have new names in the view: first and last, respectively.

--6. Solve the previous exercise so that the original columns f\_name and l\_name have new names in the view: first and last, respectively.

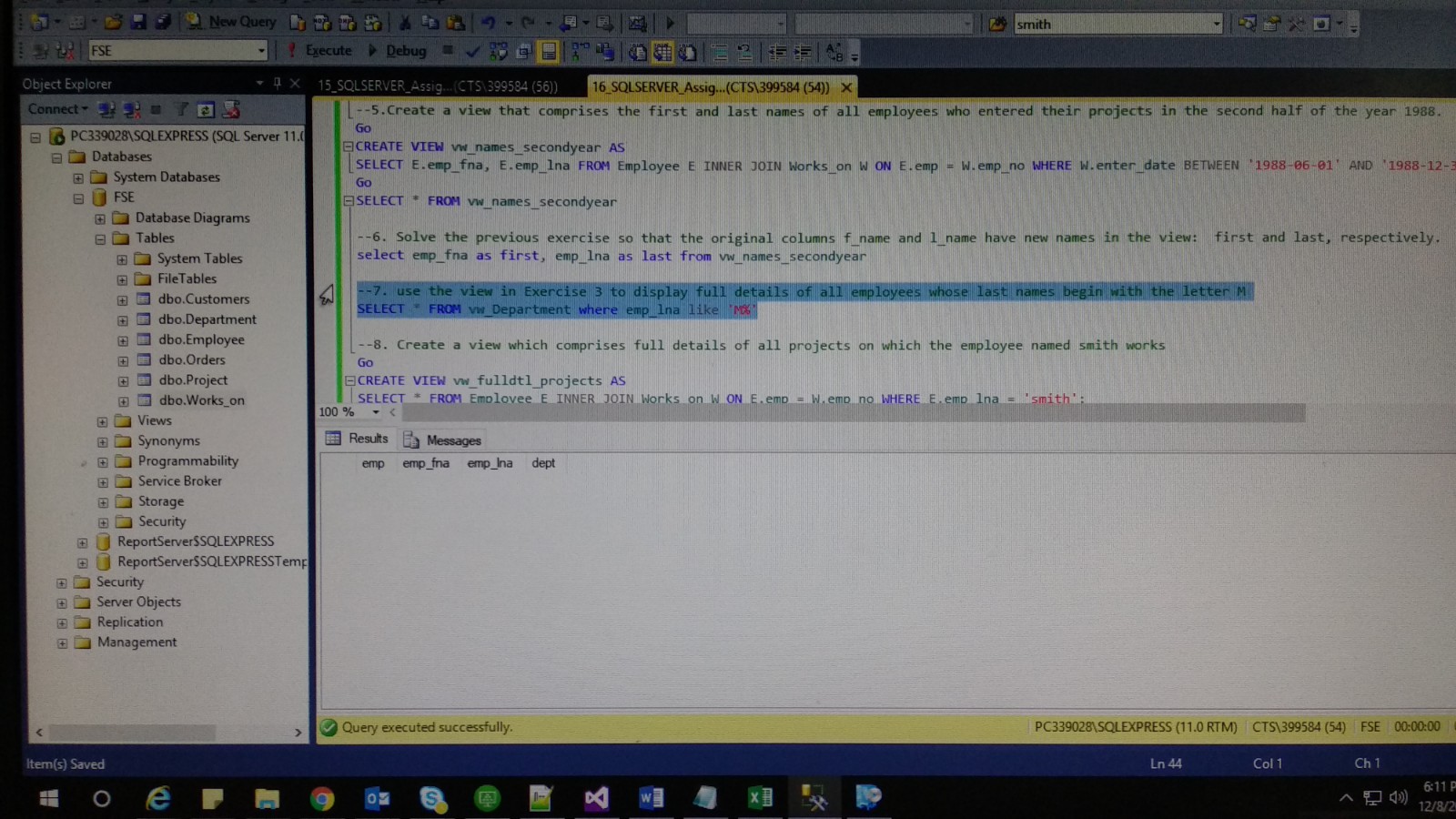
select emp\_fna as first, emp\_lna as last from vw\_names\_secondyear



1. use the view in Exercise 3 to display full details of all employees whose last names begin with the letter M.

--7. use the view in Exercise 3 to display full details of all employees whose last names begin with the letter M

SELECT \* FROM vw\_Department where emp\_lna like 'M%'



1. Create a view which comprises full details of all projects on which the employee named smith works.

--8. Create a view which comprises full details of all projects on which the employee named smith works

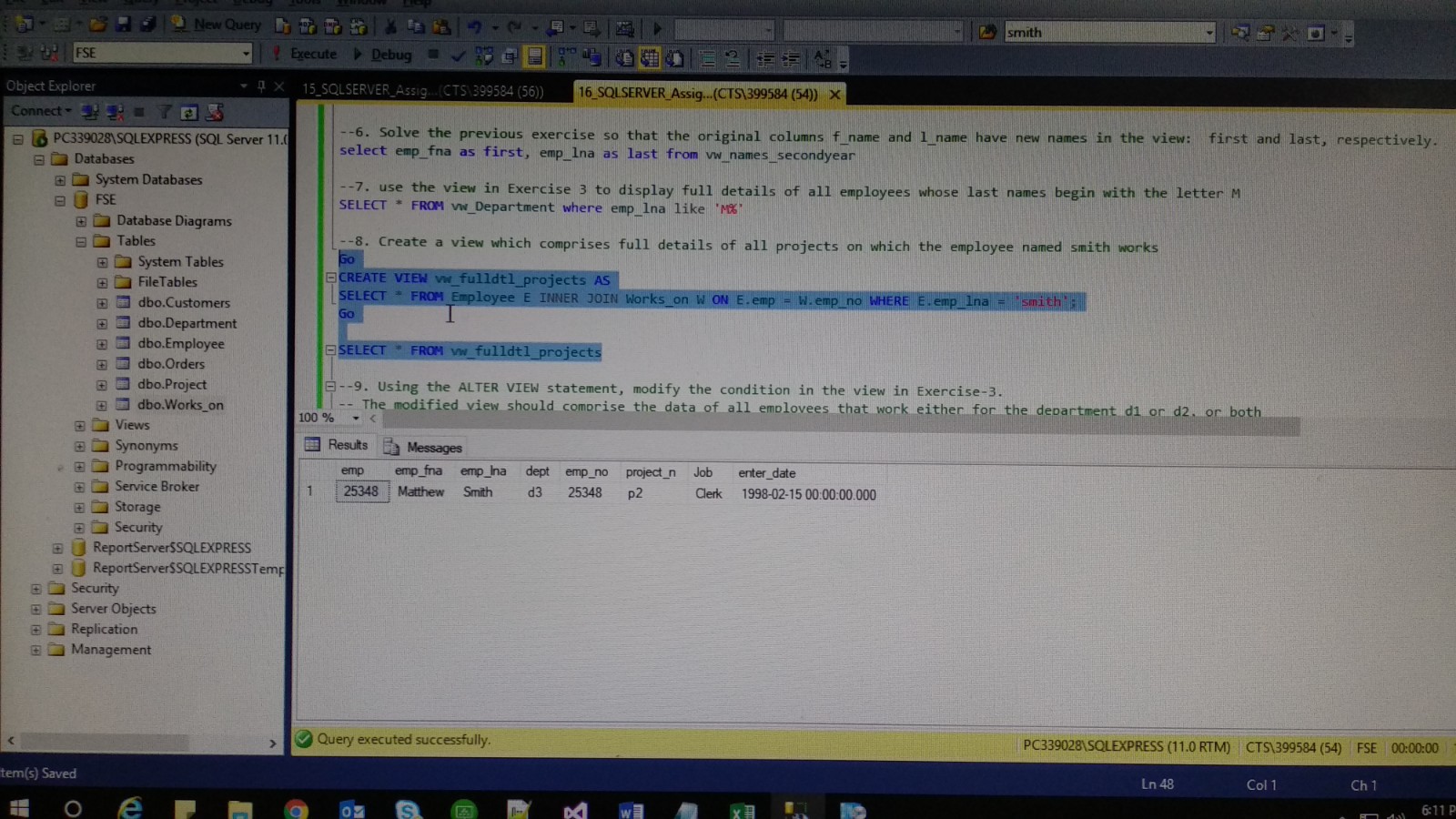
Go

CREATE VIEW vw\_fulldtl\_projects AS

SELECT \* FROM Employee E INNER JOIN Works\_on W ON E.emp = W.emp\_no WHERE E.emp\_lna = 'smith';

Go

SELECT \* FROM vw\_fulldtl\_projects



1. Using the ALTER VIEW statement, modify the condition in the view in Exercise-3. The modified view should comprise the data of all employees that work either for the department d1 or d2, or both.

--9. Using the ALTER VIEW statement, modify the condition in the view in Exercise-3.

-- The modified view should comprise the data of all employees that work either for the department d1 or d2, or both

Go

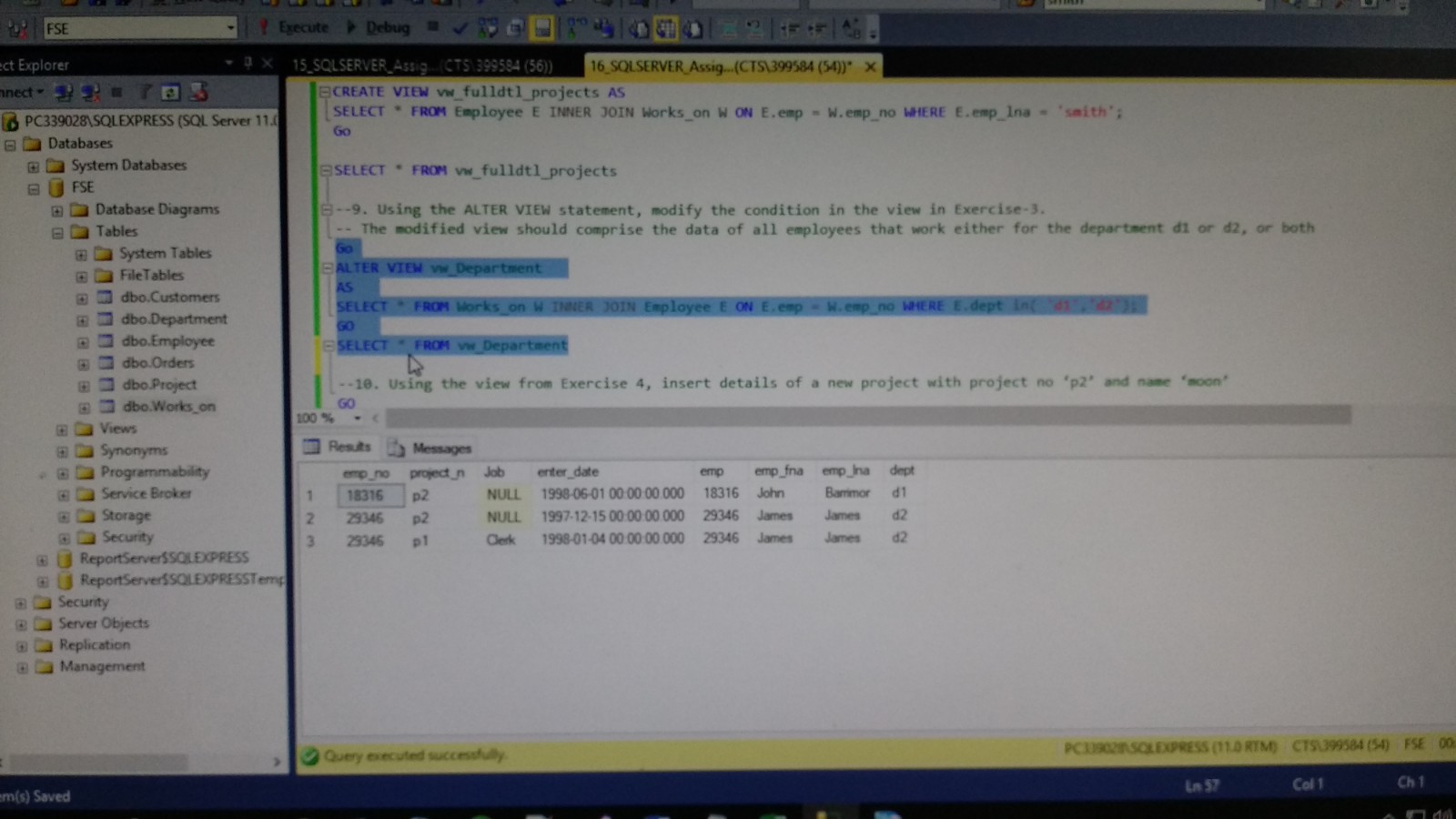
ALTER VIEW vw\_Department

AS

SELECT \* FROM Works\_on W INNER JOIN Employee E ON E.emp = W.emp\_no WHERE E.dept in( 'd1','d2');

GO

SELECT \* FROM vw\_Department



1. Using the view from Exercise 4, insert details of a new project with project no ‘p2’ and name ‘moon’

--10. Using the view from Exercise 4, insert details of a new project with project no ‘p2’ and name ‘moon’

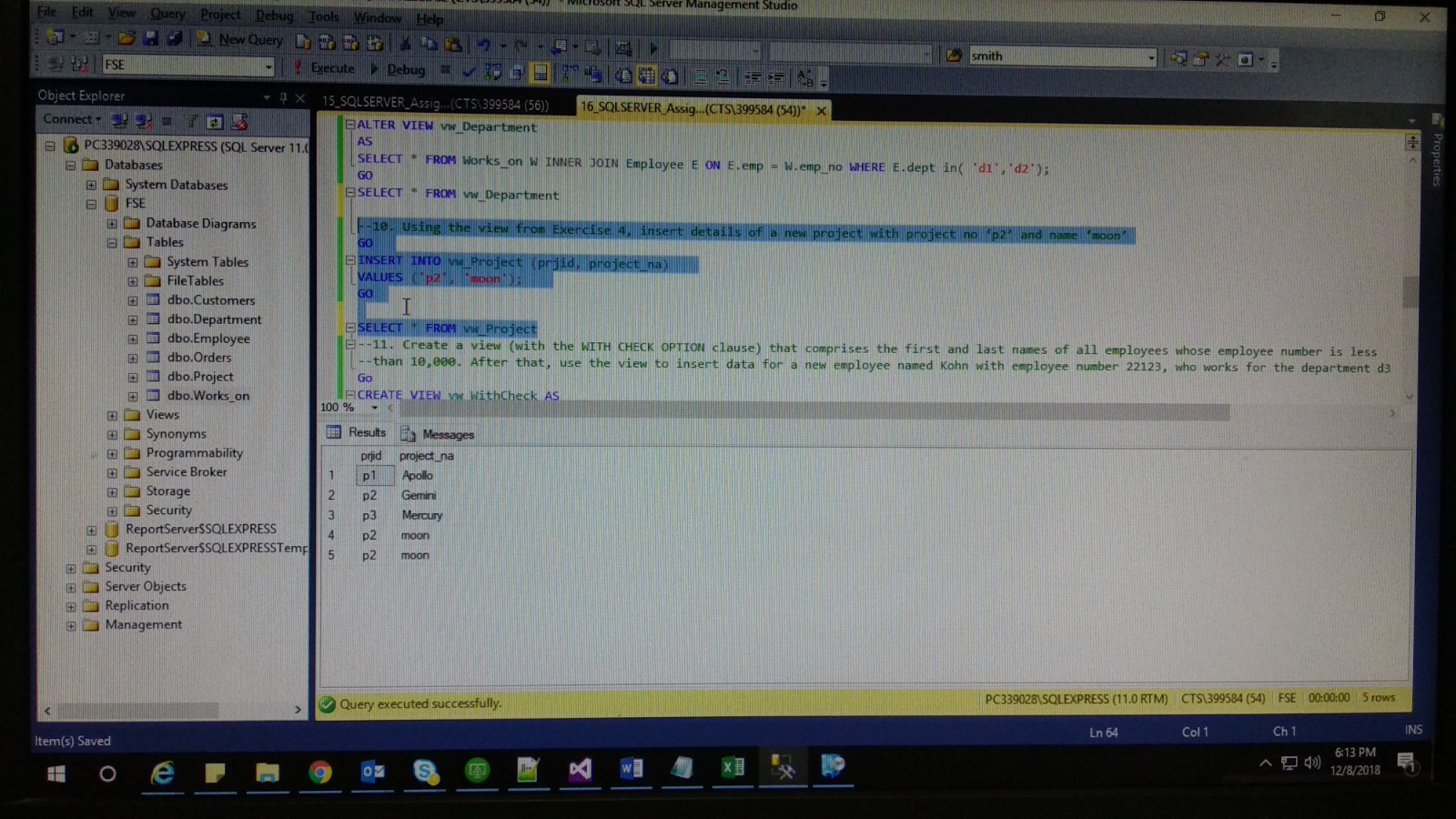
GO

INSERT INTO vw\_Project (prjid, project\_na)

VALUES ('p2', 'moon');

GO

SELECT \* FROM vw\_Project



1. Create a view (with the WITH CHECK OPTION clause) that comprises the first and last names of all employees whose employee number is less than 10,000. After that, use he view to insert data for a new employee named Kohn with the employee number 22123, who works for the department d3.

--11. Create a view (with the WITH CHECK OPTION clause) that comprises the first and last names of all employees whose employee number is less

--than 10,000. After that, use the view to insert data for a new employee named Kohn with employee number 22123, who works for the department d3

Go

CREATE VIEW vw\_WithCheck AS

SELECT emp\_fna, emp\_lna FROM Employee E WHERE emp < '10000'

WITH CHECK OPTION;

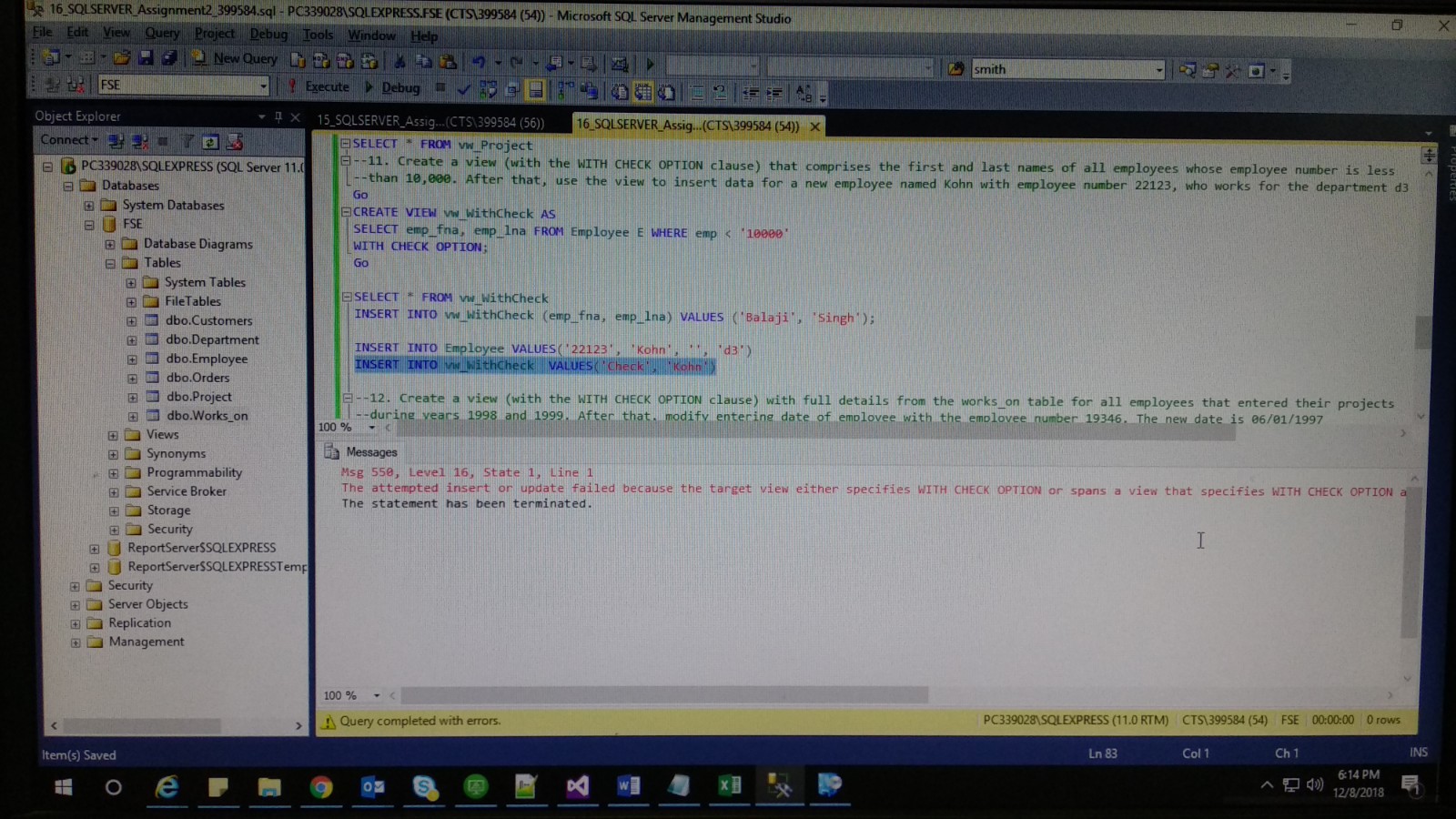
Go

SELECT \* FROM vw\_WithCheck

INSERT INTO vw\_WithCheck (emp\_fna, emp\_lna) VALUES ('Balaji', 'Singh');

INSERT INTO Employee VALUES('22123', 'Kohn', '', 'd3')

INSERT INTO vw\_WithCheck VALUES('Check', 'Kohn')



1. Create a view (with the WITH CHECK OPTION clause) with full details from the works\_on table for all employees that entered their projects during the years 1998 and 1999. After that, modify the entering date of the employee with the employee number 19346. The new date is 06/01/1997.

--12. Create a view (with the WITH CHECK OPTION clause) with full details from the works\_on table for all employees that entered their projects

--during years 1998 and 1999. After that, modify entering date of employee with the employee number 19346. The new date is 06/01/1997

Go

CREATE VIEW vw\_WorkChk AS

SELECT \* FROM Works\_on WHERE enter\_date between '1998-01-01' and '1999-12-31'

WITH CHECK OPTION;

Go

INSERT INTO vw\_WorkChk VALUES('19346', 'p3', 'Analyst', '1999-01-01')

UPDATE vw\_WorkChk SET enter\_date = '1997-06-01' WHERE emp\_no = '19346';

SELECT \* FROM vw\_WorkChk

SELECT \* FROM Works\_on

