**資料庫管理系統**

第三次練習

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| --- | --- | --- |
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| 缺少: | 錯誤: |  |

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# 學校School關聯式資料庫綱要

Students ( sid, name, birthday, tel )

Parents ( sid, name, relationship )

Std-Address ( sid, address )

Results ( sid, e\_no, grade, date )

Exams ( e\_no, title, type, c\_no )

Courses ( c\_no, title, credits )

Instructors ( eid, department, rank, SSN )

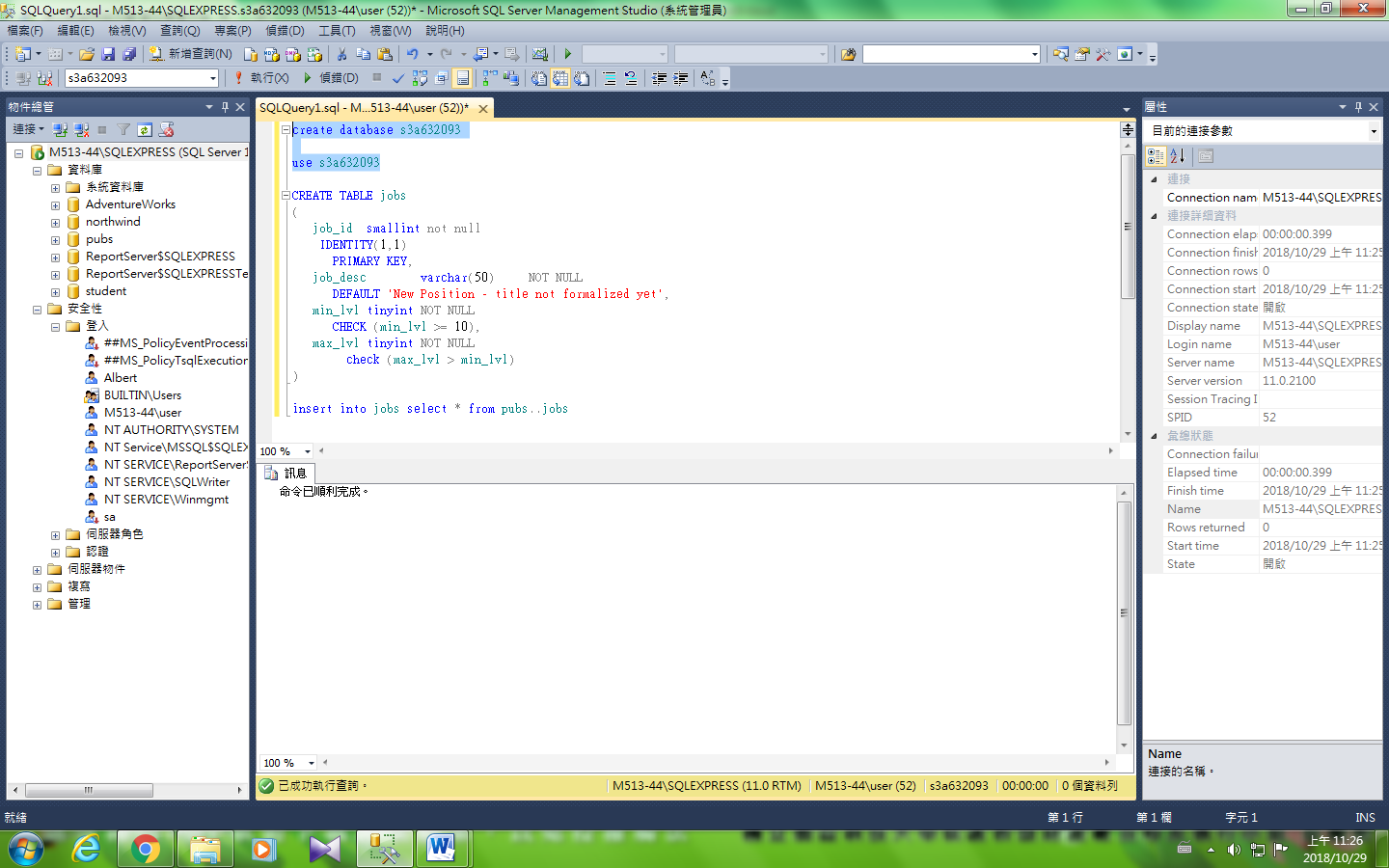
Employees ( SSN, name, city, street, tel )

Classes ( eid, sid, c\_no, time, room, grade )

# Create database

create database s3a632093

use s3a632093



# Create table

本範例將示範已建立在s3a632093資料庫中的三個資料表(job、employee及publishers)的完整資料表定義，包含所有的條件約束定義

## 建立jobs

CREATE TABLE jobs

(

job\_id smallint not null

IDENTITY(1,1)

PRIMARY KEY,

job\_desc varchar(50) NOT NULL

DEFAULT 'New Position - title not formalized yet',

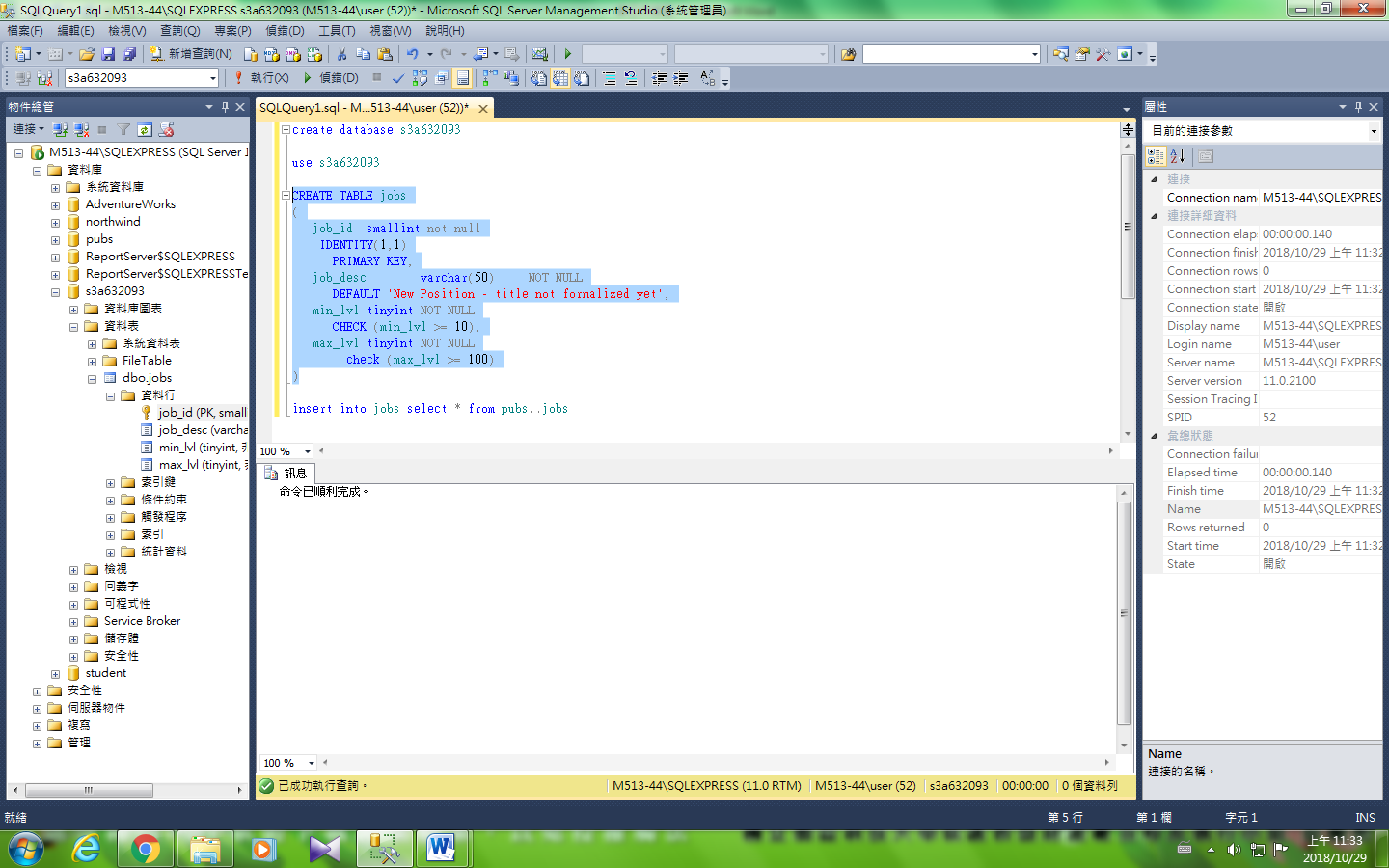
min\_lvl tinyint NOT NULL

CHECK (min\_lvl >= 10),

max\_lvl tinyint NOT NULL

check (max\_lvl >= 100)

)



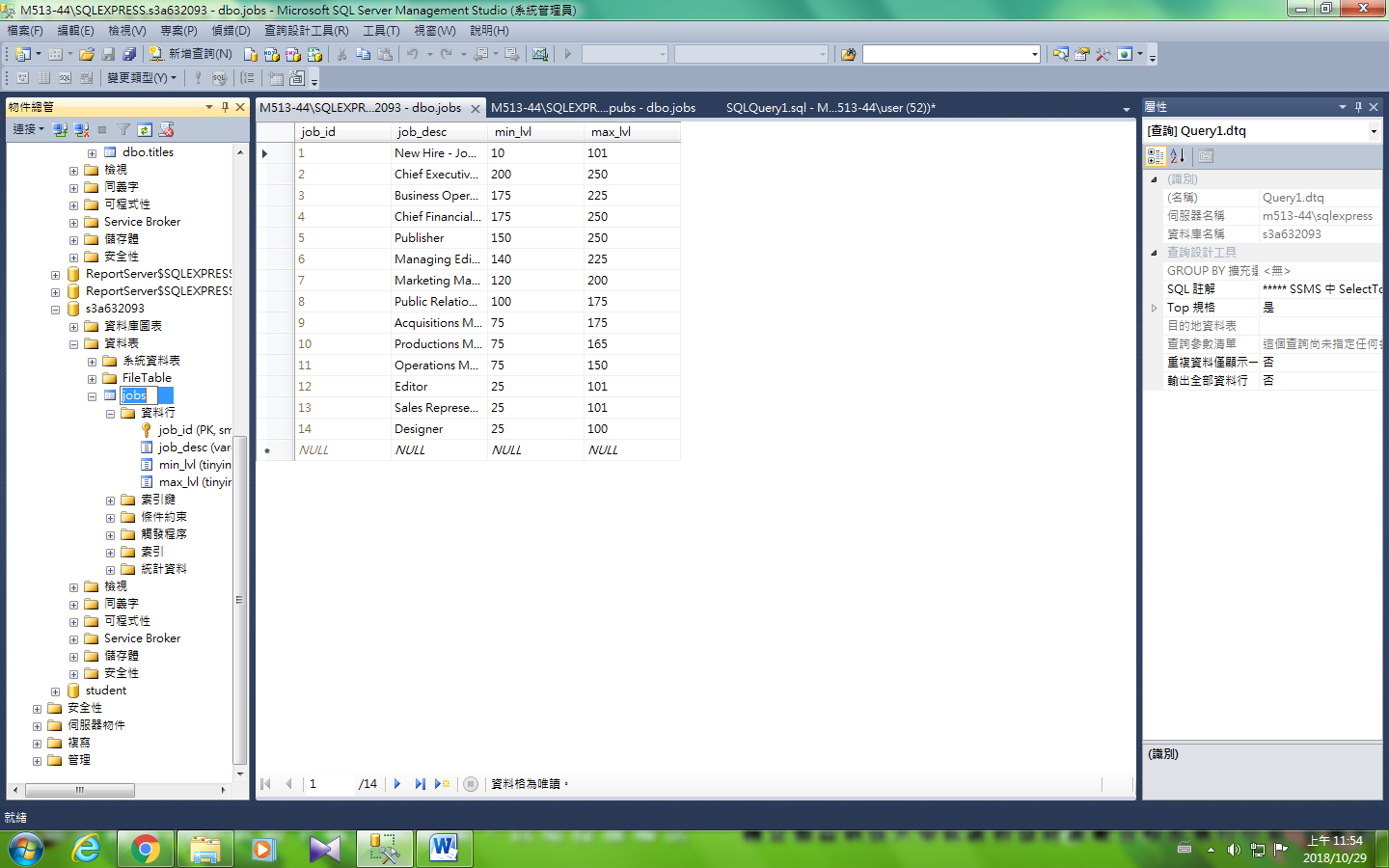
## 匯入資料

輸入資料庫pubs中的jobs

set IDENTITY\_INSERT jobs on

go

insert jobs (job\_id, job\_desc, min\_lvl, max\_lvl) select \* from pubs..jobs



## 建立publishers

CREATE TABLE publishers

(

pub\_id char(4) NOT NULL

CONSTRAINT UPKCL\_pubind PRIMARY KEY

CHECK (pub\_id IN ('1389', '0736', '0877', '1622', '1756')

OR pub\_id LIKE '99[0-9][0-9]'),

pub\_name varchar(40) NULL,

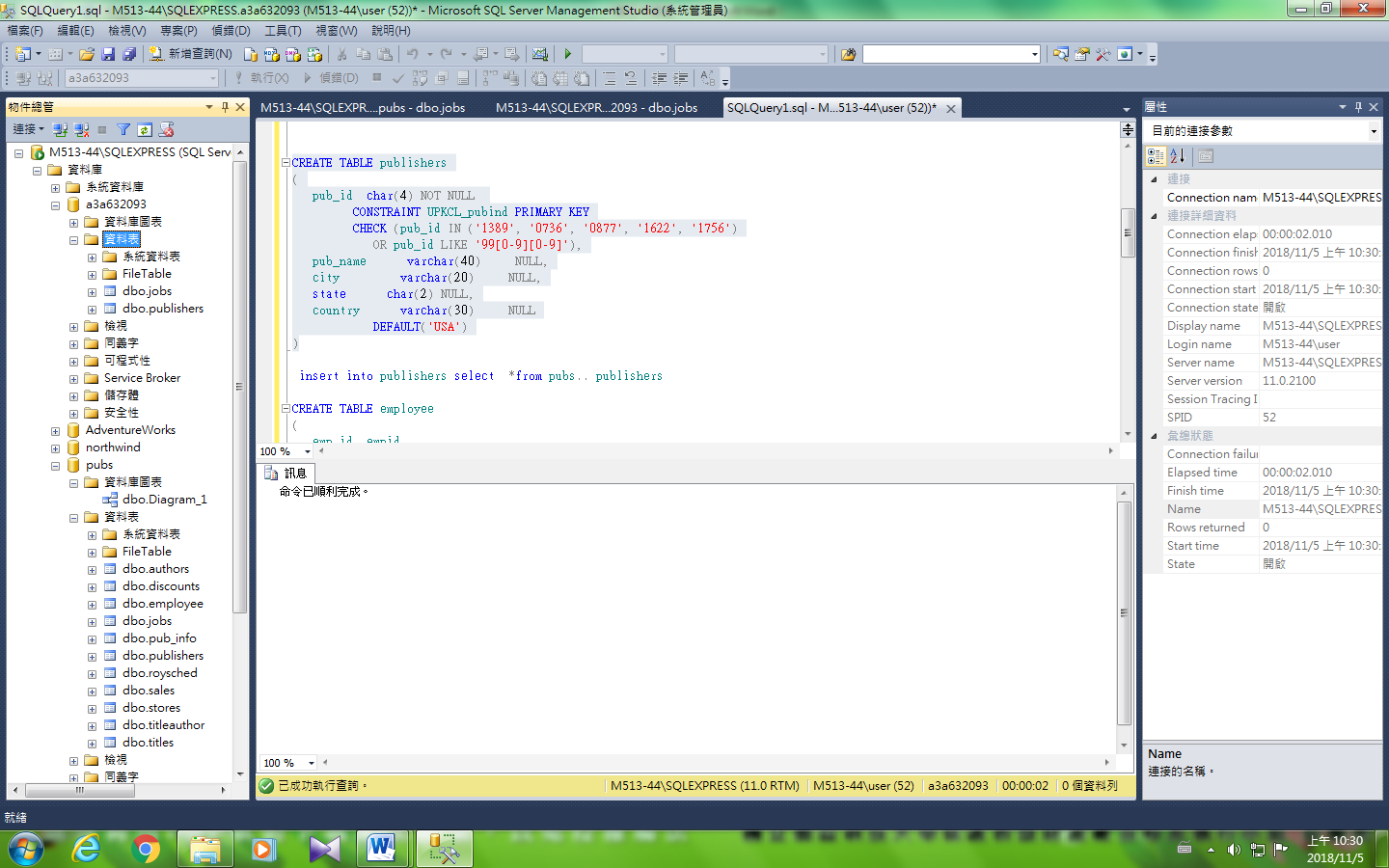
city varchar(20) NULL,

state char(2) NULL,

country varchar(30) NULL

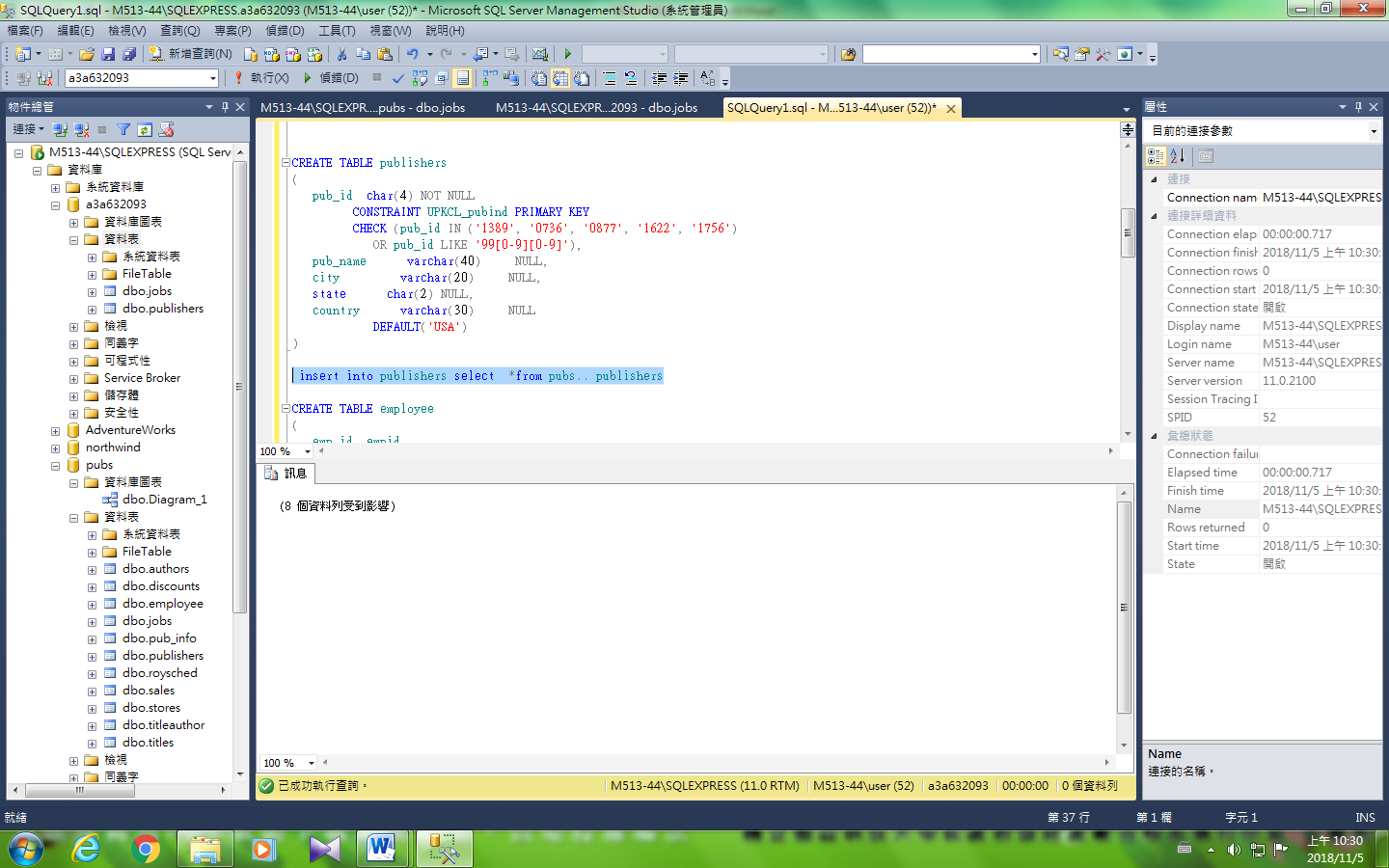
DEFAULT('USA')

)



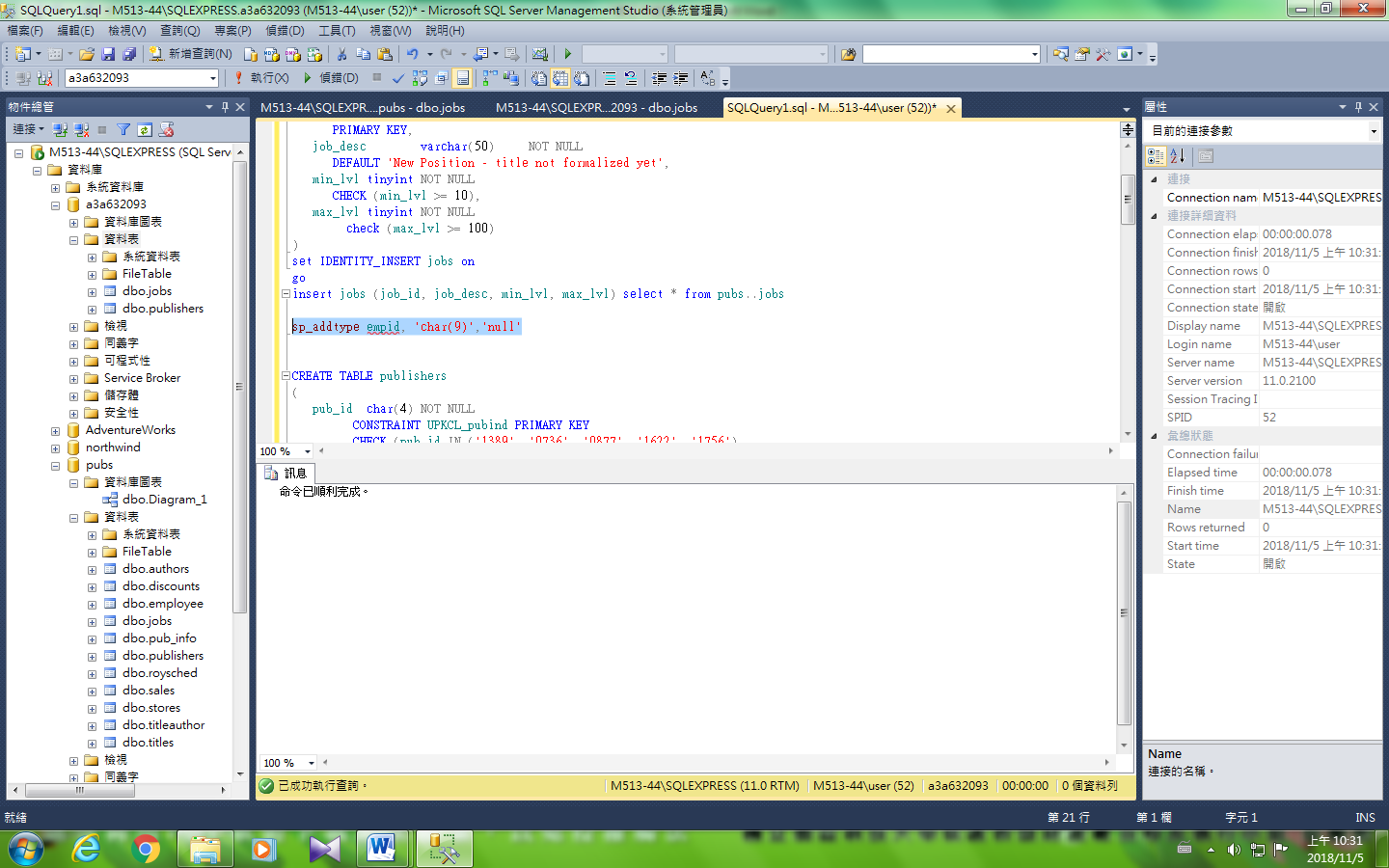
## 匯入資料

insert into publishers select \*from pubs.. publishers



## 建立employee

sp\_addtype empid, 'char(9)','null'



CREATE TABLE employee

(

emp\_id empid

CONSTRAINT PK\_emp\_id PRIMARY KEY

CONSTRAINT CK\_emp\_id CHECK (emp\_id LIKE

'[A-Z][A-Z][A-Z][1-9][0-9][0-9][0-9][0-9][FM]' or

emp\_id LIKE '[A-Z]-[A-Z][1-9][0-9][0-9][0-9][0-9][FM]'),

/\* Each employee ID consists of three characters that

represent the employee's initials, followed by a five

digit number ranging from 10000 through 99999 and then the

employee's gender (M or F). A (hyphen) - is acceptable

for the middle initial. \*/

fname varchar(20) NOT NULL,

minit char(1) NULL,

lname varchar(30) NOT NULL,

job\_id smallint NOT NULL

DEFAULT 1

/\* Entry job\_id for new hires. \*/

REFERENCES jobs(job\_id),

job\_lvl tinyint

DEFAULT 10,

/\* Entry job\_lvl for new hires. \*/

pub\_id char(4) NOT NULL

DEFAULT ('9952')

REFERENCES publishers(pub\_id),

/\* By default, the Parent Company Publisher is the company

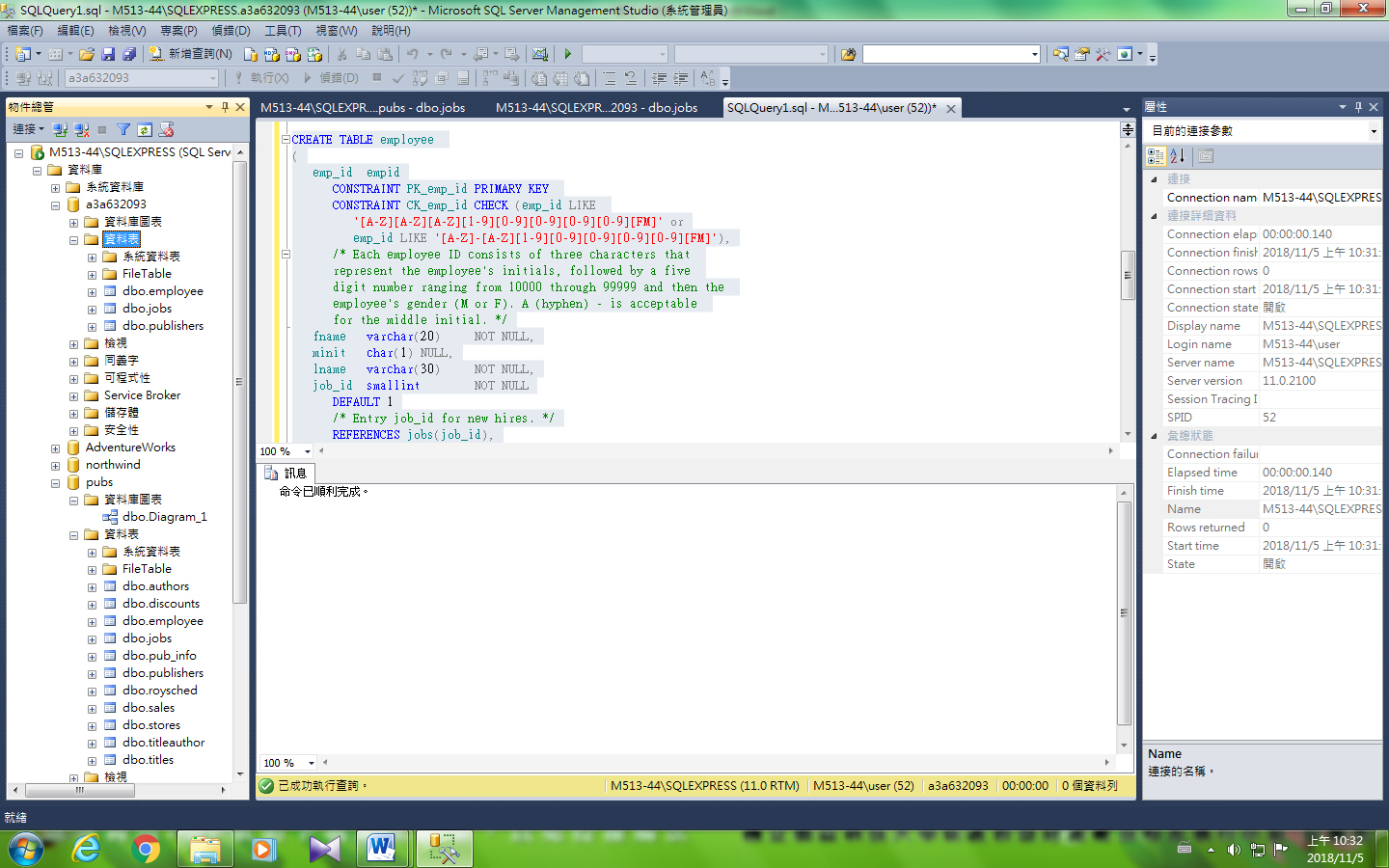
to whom each employee reports. \*/

hire\_date datetime NOT NULL

DEFAULT (getdate())

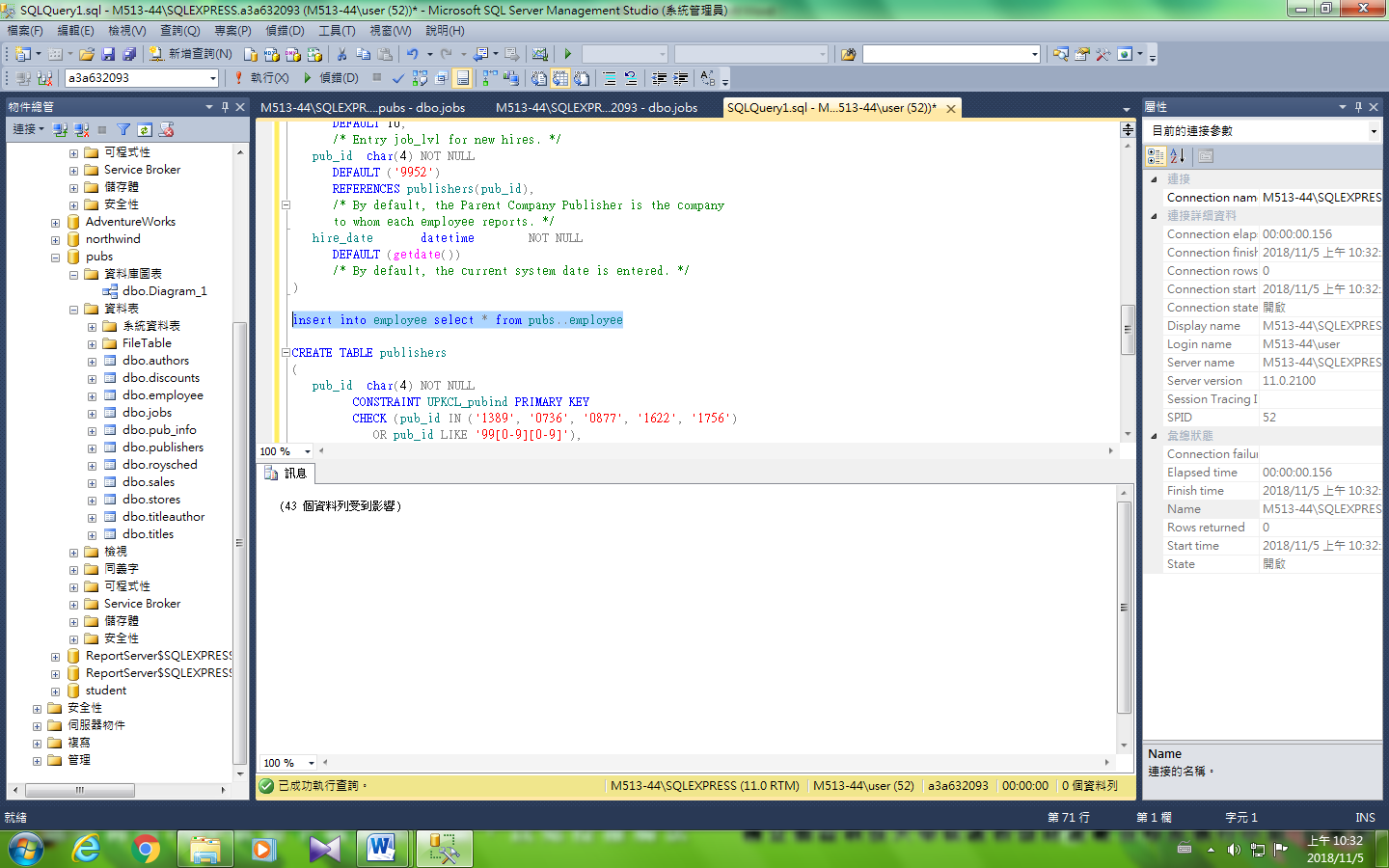
/\* By default, the current system date is entered. \*/

)



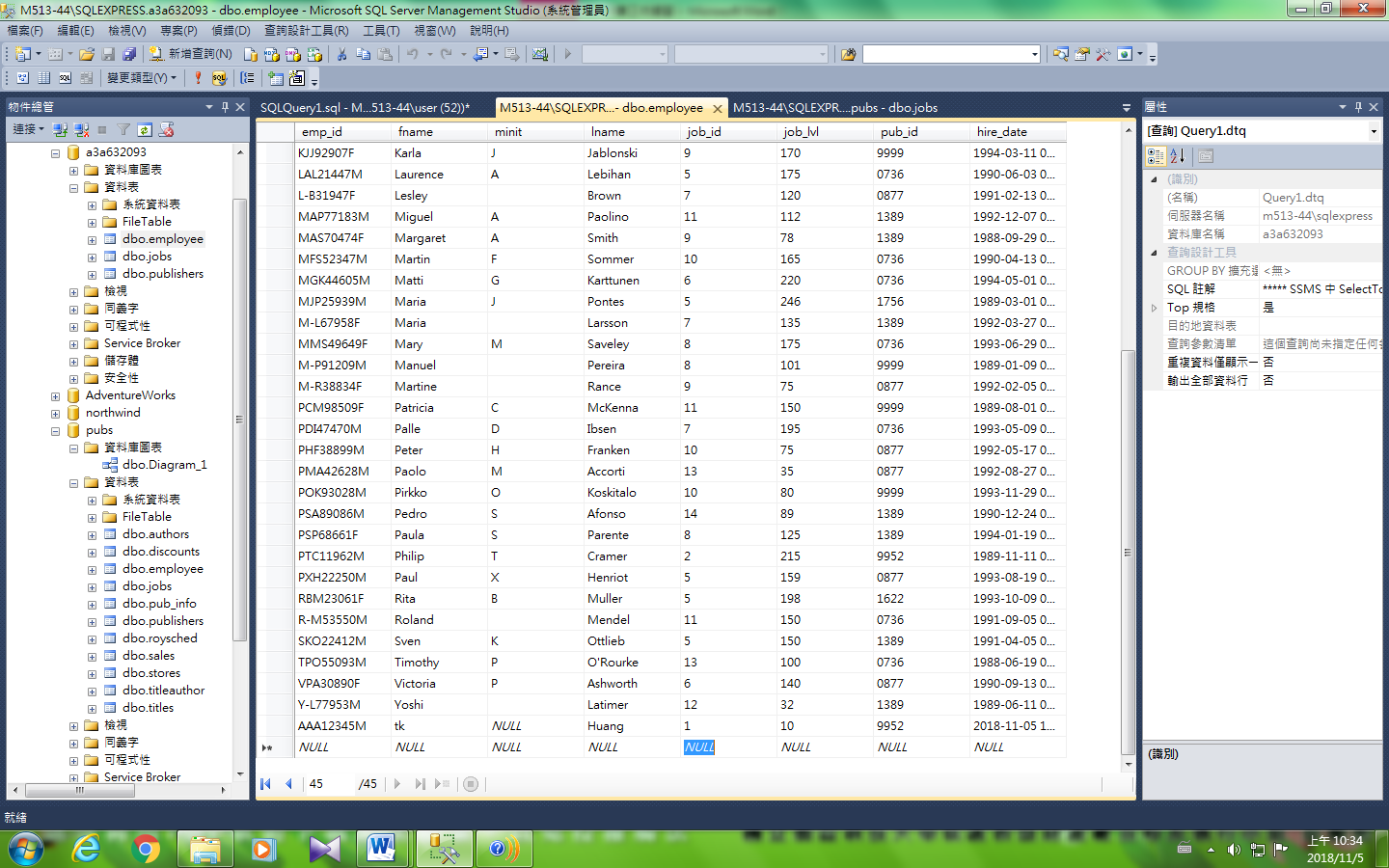
## 匯入資料

insert into employee select \*from pubs.. employee



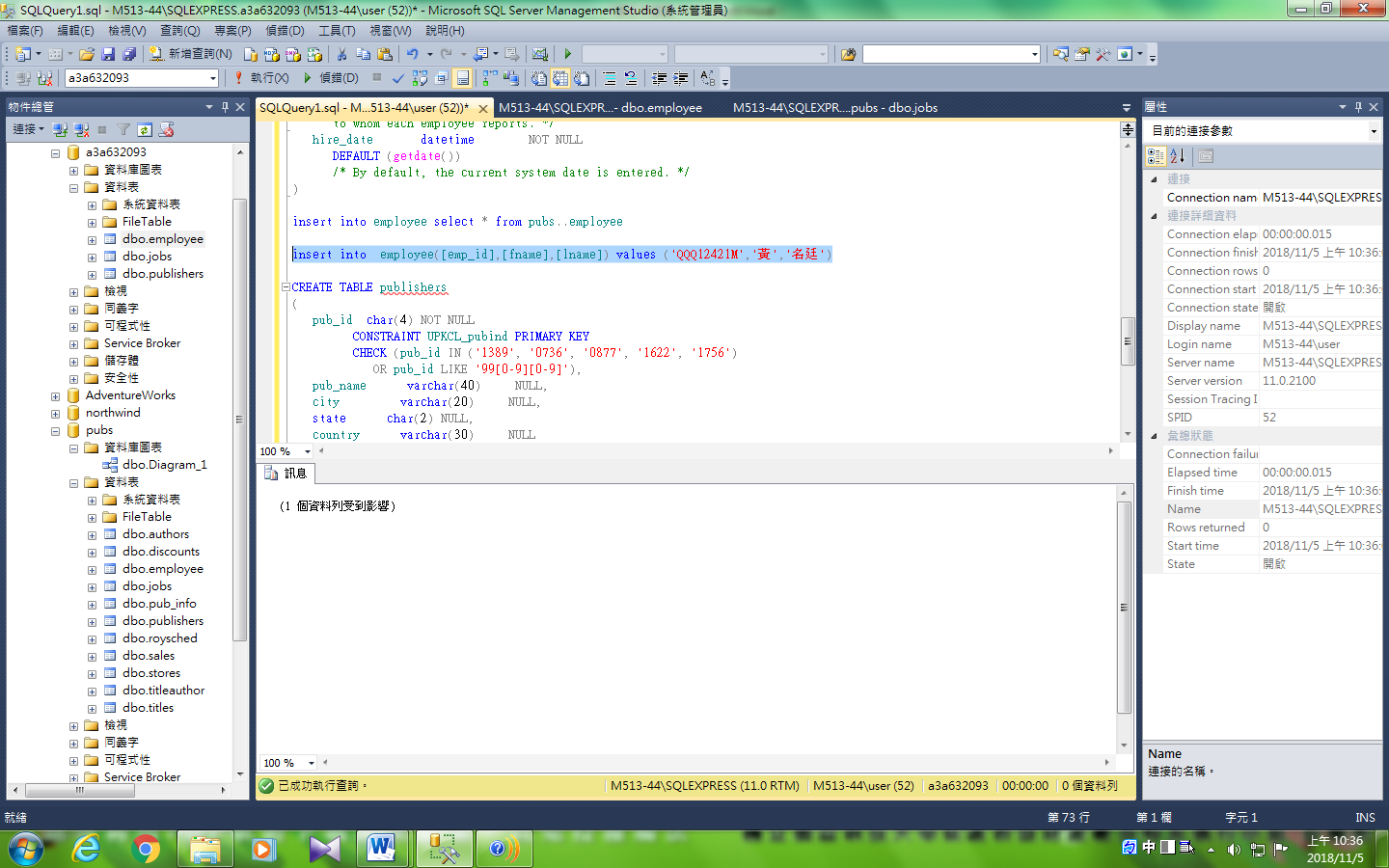
## 在employee中練習輸入新進員工

手動鍵入

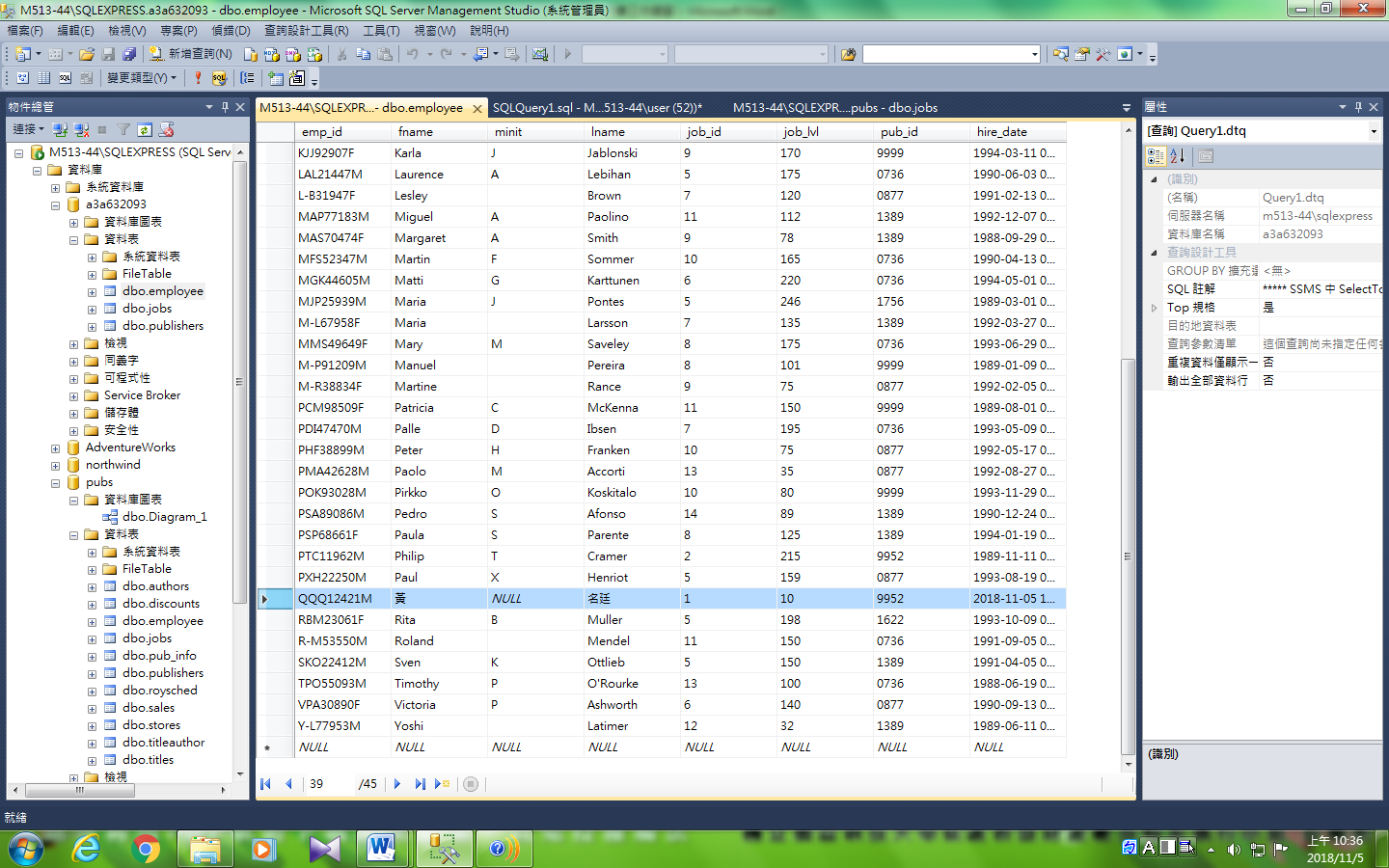


insert into輸入

insert into employee([emp\_id],[fname],[lname]) values ('AAA54321M','王','翔')



### 驗證



## 建立計算欄位資料表

CREATE TABLE mytable

(

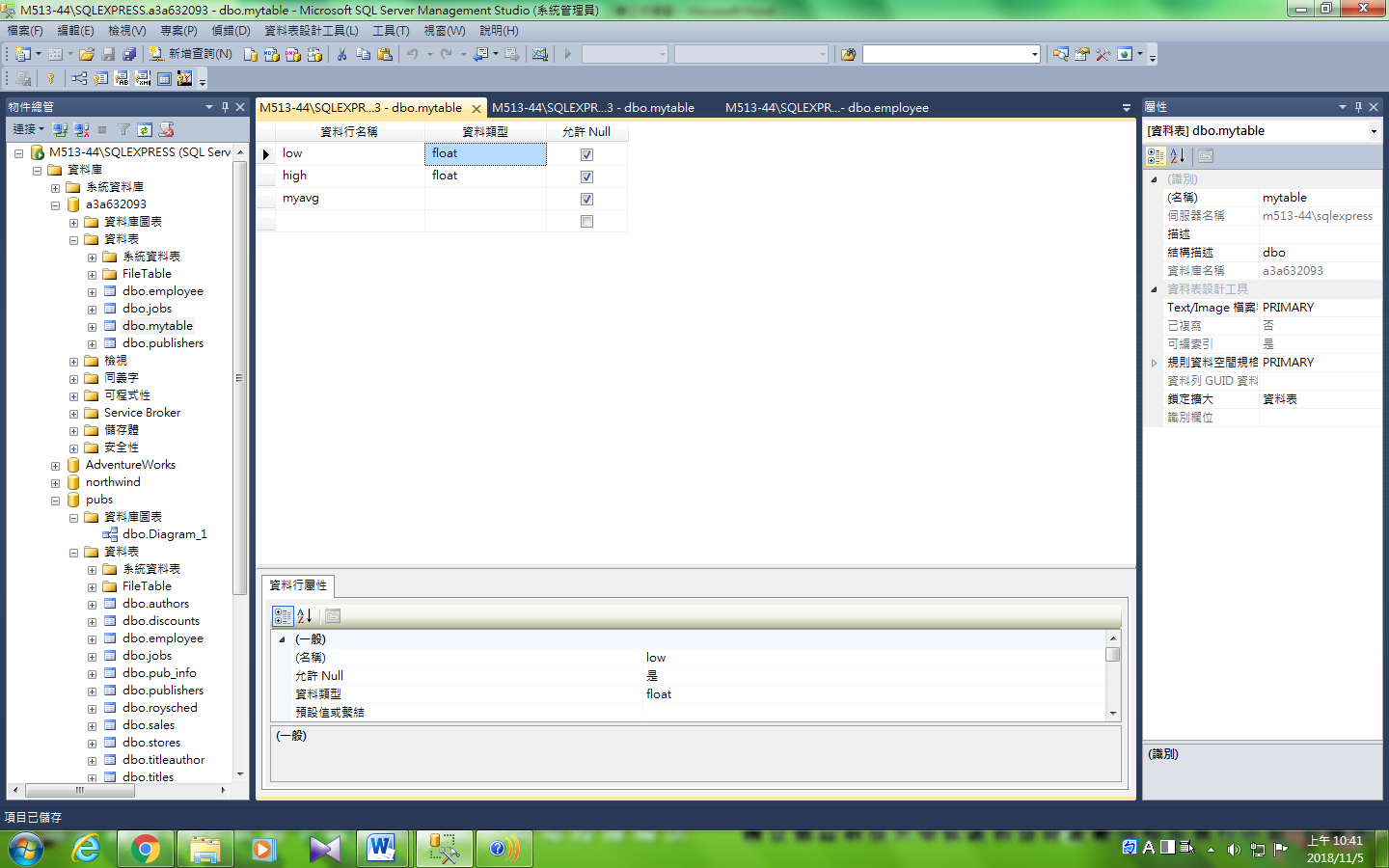
[low] int,

high int,

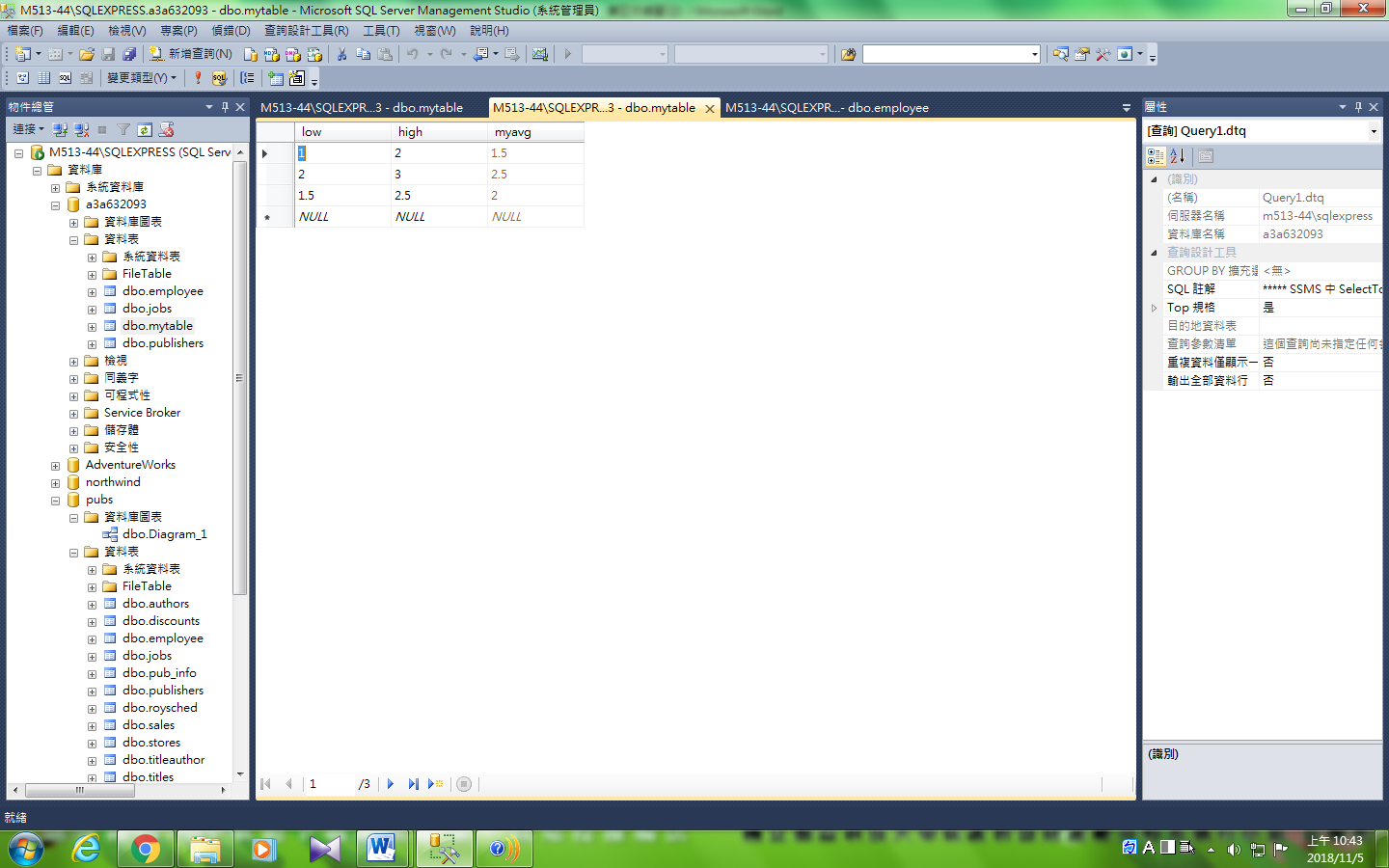
myavg AS ([low] + high)/2

)

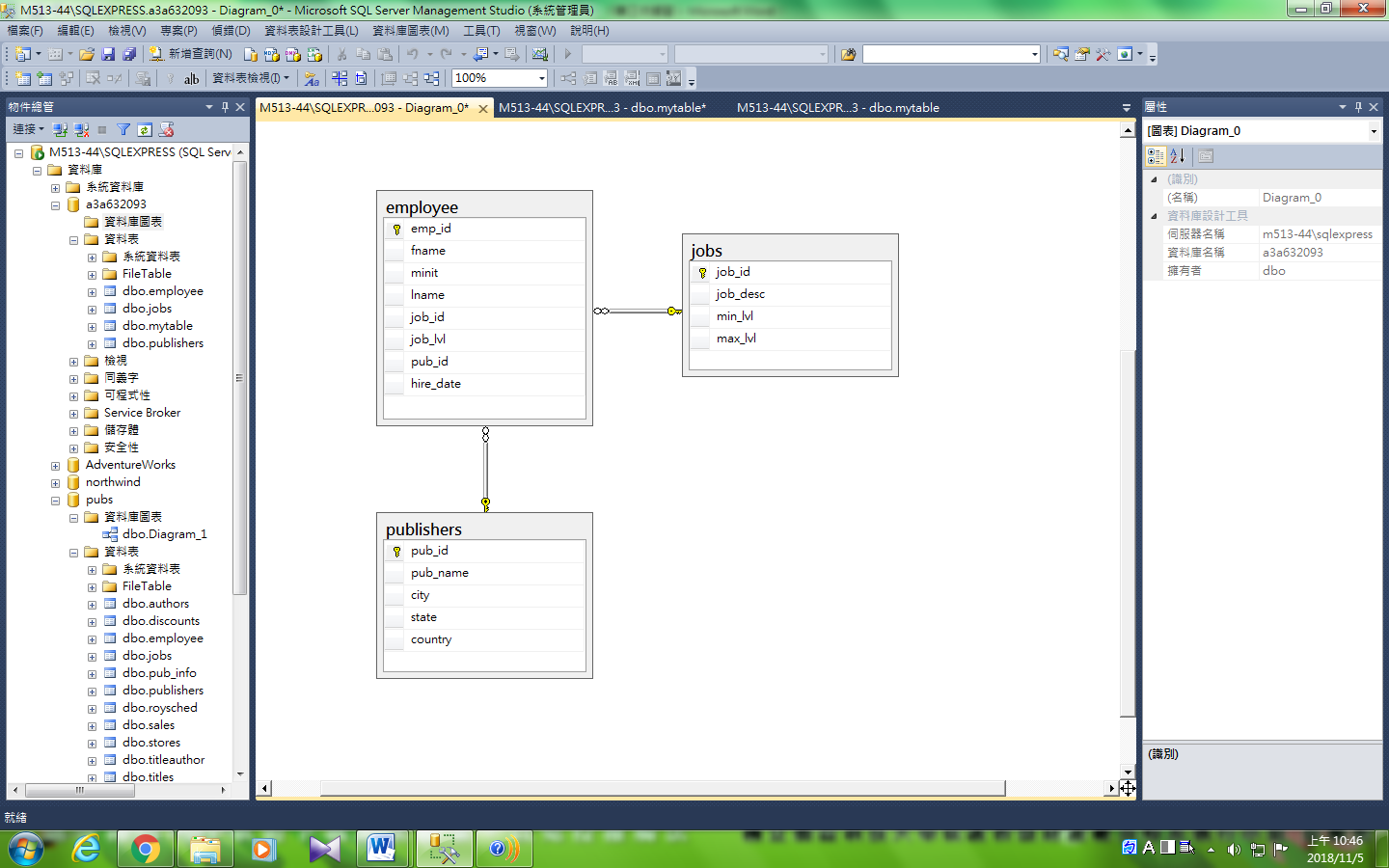




### 驗證



## ER\_Diagram



## 建立計算欄位資料表

CREATE TABLE 估價

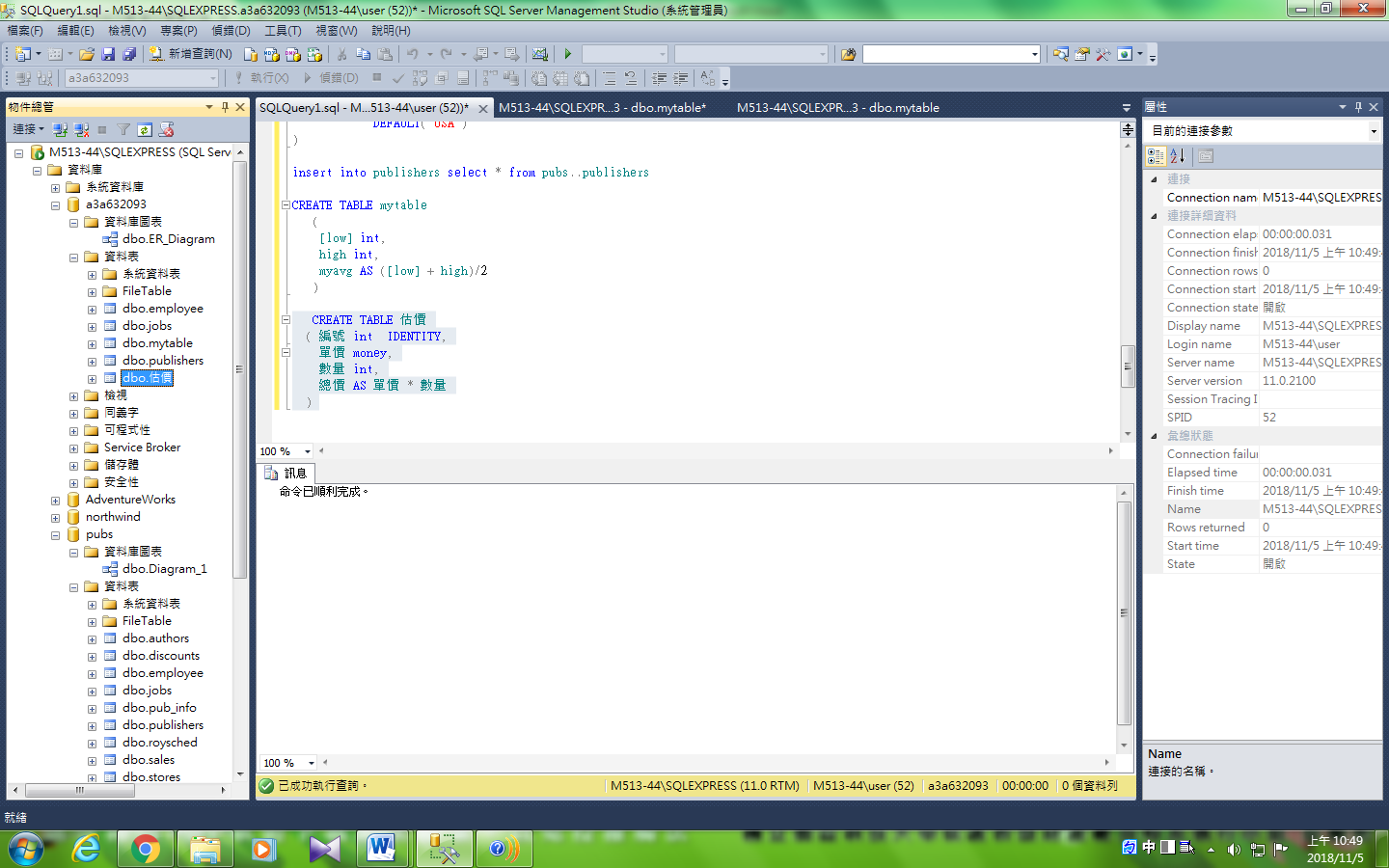
( 編號 int IDENTITY,

單價 money,

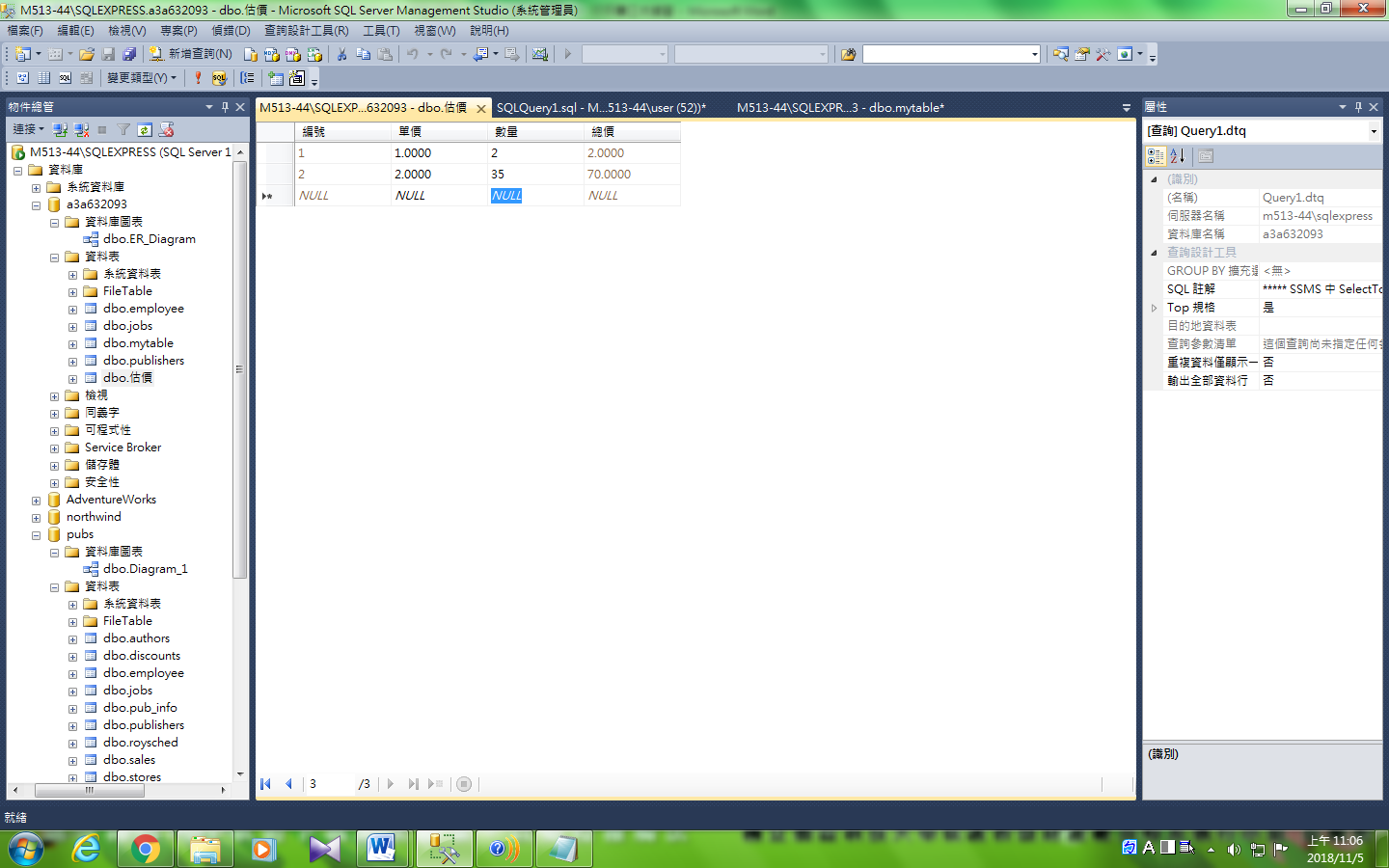
數量 int,

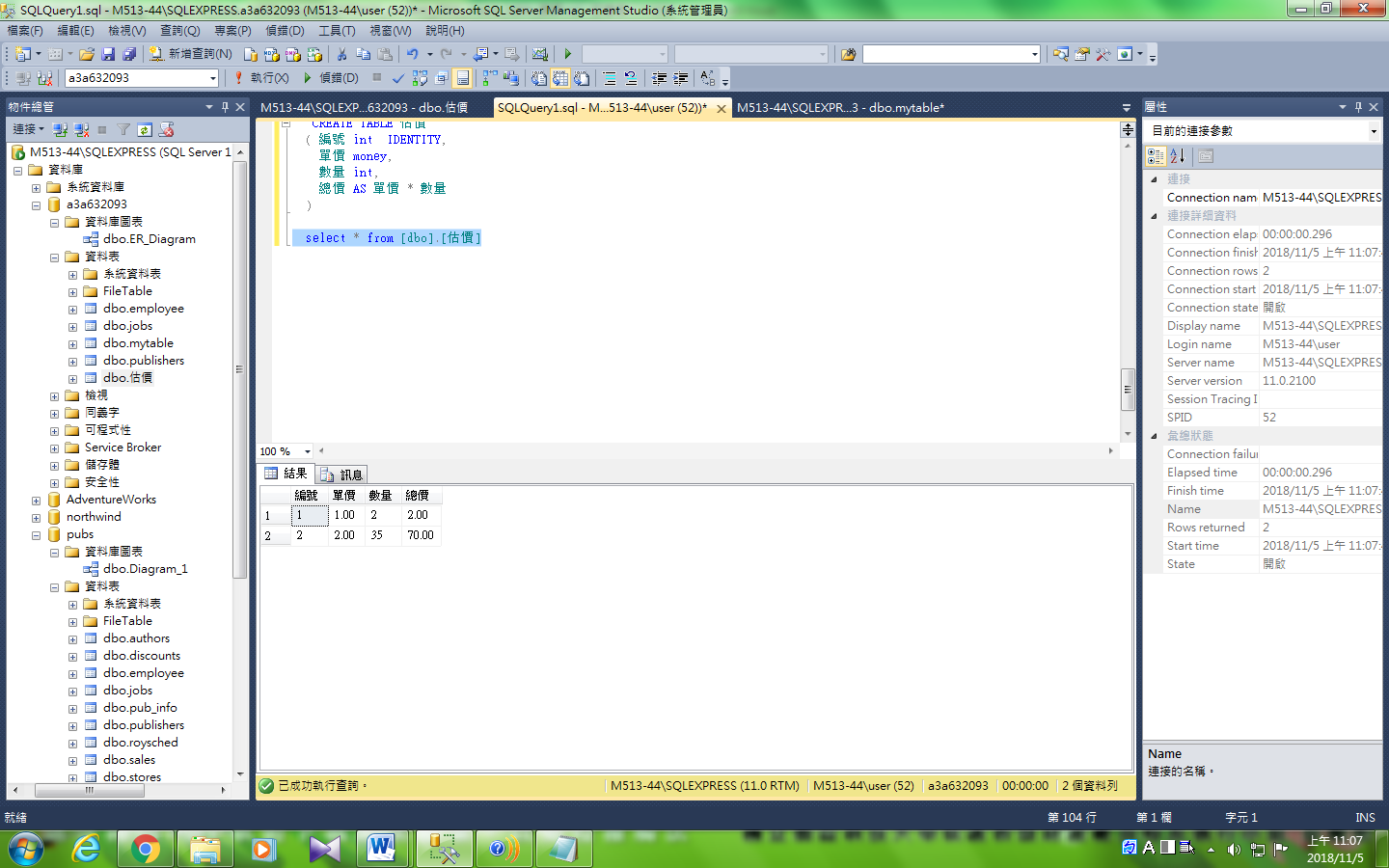
總價 AS 單價 \* 數量

)



### 驗證

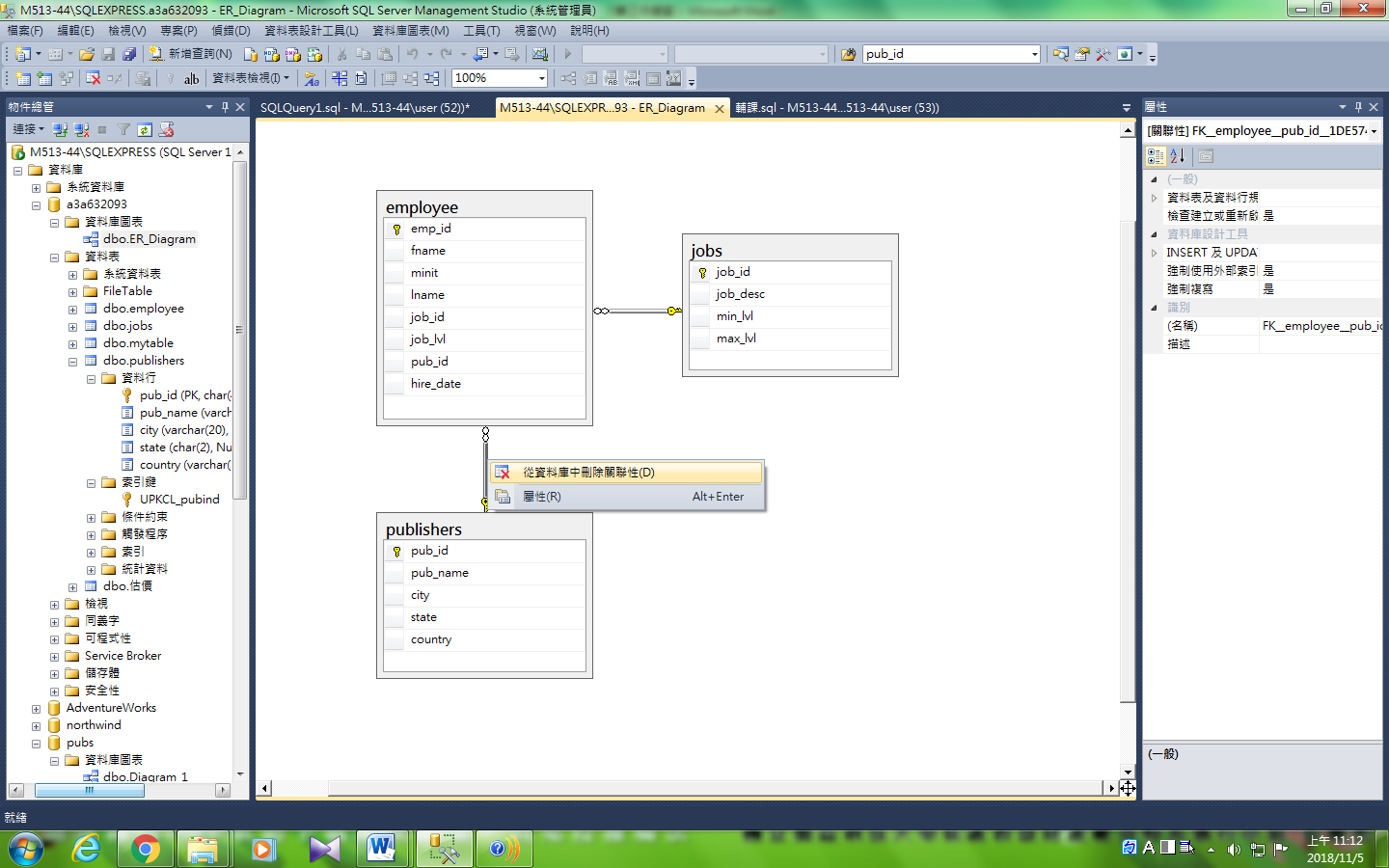




## Alter table

### 欄位

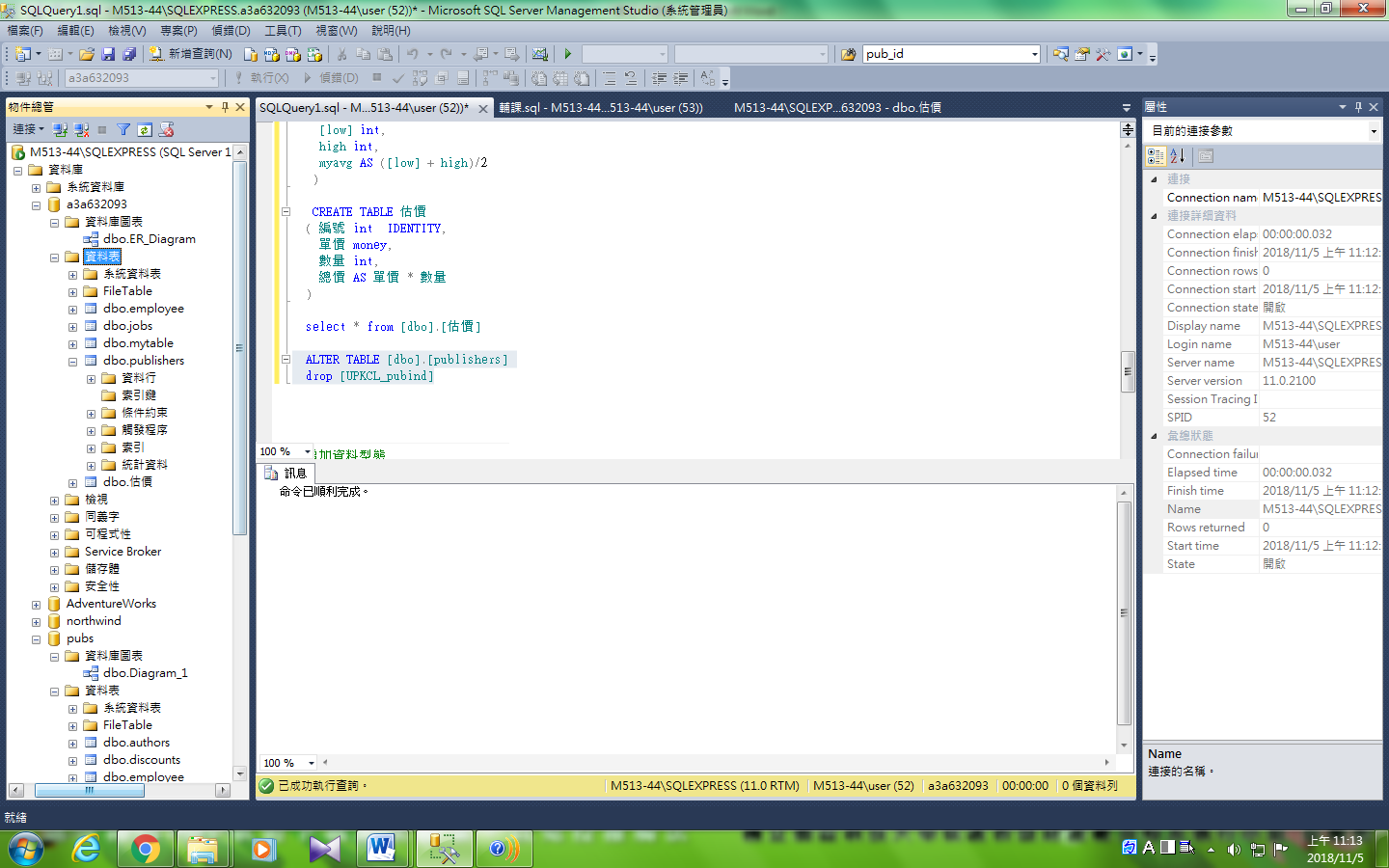
改變前



### 移除主鍵

ALTER TABLE [dbo].[publishers]

drop [UPKCL\_pubind]



### 增加主鍵

ALTER TABLE dbo.publishers

ADD PRIMARY KEY (pub\_id)

