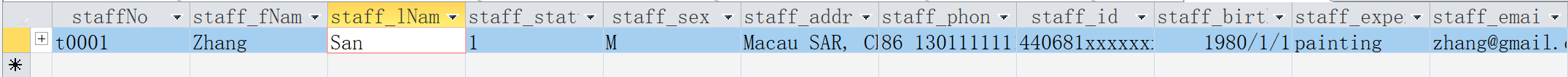
**Data Entry:**

1. Enter the details of a new instructor.

(If there is an insert error, you should delete the row by yourself because we initially use logical deletion in our database)

**INSERT INTO** staff\_info ( staffNo, staff\_fName, staff\_lName, staff\_status, staff\_sex, staff\_address, staff\_phone, staff\_id, staff\_birth, staff\_expertise, staff\_email )

**VALUES**

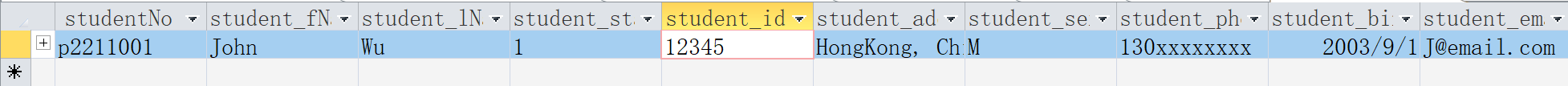
( "t0001", "Zhang", "San", "1", "M", "Macau SAR, China", "86 13011111111", "440681xxxxxxxxxxx0", #1980-01-01#, "painting", "zhang@gmail.com" );

1. Enter the details of a new student.

(If there is an insert error, you should delete the row by yourself because we initially use logical deletion in our database)

**INSERT INTO** student\_info ( studentNo, student\_fName, student\_lName, student\_status, student\_sex, student\_birth, student\_id, student\_phone, student\_address, student\_email )

**VALUES**

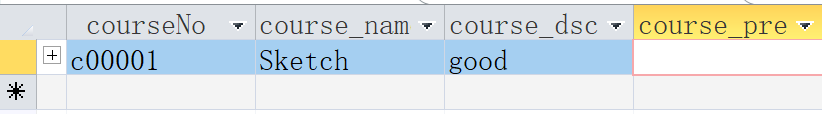
 ( "p2211001", "John", "Wu", "1", "M", #2003-09-01#, "12345", "130xxxxxxxx", "HongKong, China", "J" );

1. Enter the details of a new course.

**INSERT INTO** course\_info ( courseNo, course\_name, course\_dsc, course\_pre )

**VALUES**

( "c00001", "Sketch", "good", Null);

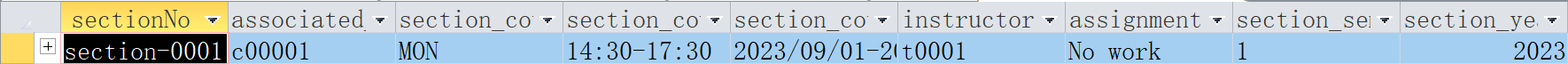


1. Enter the details of a new class section before a new semester begins.

**Initially we design “section\_year” attribute as YEAR, but my computer’s app doesn’t support it yet due to the lower version. So we contemporarily use INT to replace it.**

**INSERT INTO** class\_section\_info (sectionNo, associated\_course, section\_course\_day, section\_course\_time, section\_course\_duration, instructor, assignment, section\_semester, section\_year)

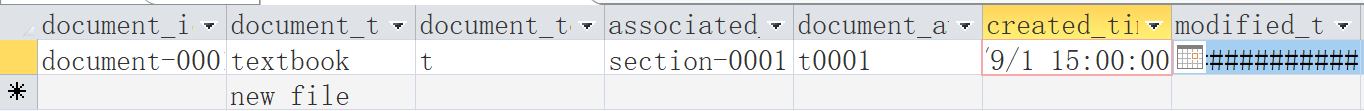
**VALUES**

 ("section-0001", "c00001", "MON", "14:30-17:30", "2023/09/01-2023/12/01", "t0001", "No work", "1", 2023);

1. Enter the details of a new class material when it is needed.

**INSERT INTO** course\_material\_info ( document\_id, document\_author, document\_title, document\_topic, associated\_section, created\_time, modified\_time )

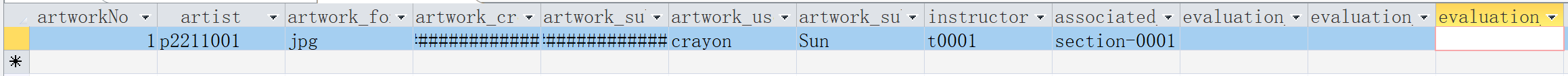
**VALUES**

 ( "document-0001", "t0001", "textbook", "t", "section-0001", #2023-09-01 15:00:00#, #2023-09-01 15:00:00# );

1. Enter the details of a new artwork when it exists.

**INSERT INTO** artwork\_info ( artworkNo, artist, artwork\_created\_time, artwork\_submitted\_time, artwork\_format, artwork\_subject, artwork\_used\_medium, instructor, associated\_section )

**VALUES**

(1, "p2211001", #2023-11-11 17:00:00#, #2023-11-12 10:00:00#, "jpg", "Sun", "crayon", "t0001", "section-0001");

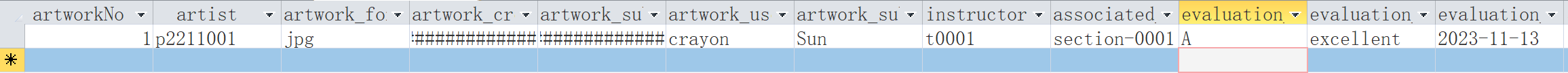
1. Enter the details of a new evaluation when there is an artwork.

**UPDATE** artwork\_info

**SET** evaluation\_written\_date = #2023-11-13#,

evaluation\_grade = "A",

evaluation\_remark = "excellent"

**WHERE** artworkNo = 1;

**Data Update / Deletion:**

1. Update / delete the details of an instructor.

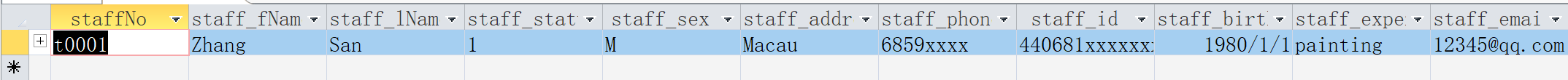
**UPDATE** staff\_info

**SET** staff\_phone = "6859xxxx",

staff\_address = "Macau",

staff\_email = "12345@qq.com"

**WHERE**

 staffNo = "t0001";

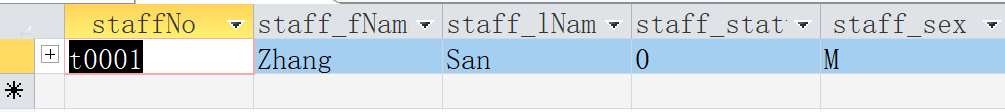
**UPDATE** staff\_info

SET staff\_status = "0"

**WHERE**

staffNo = "t0001";

(It won’t be select as a row when doing a query)



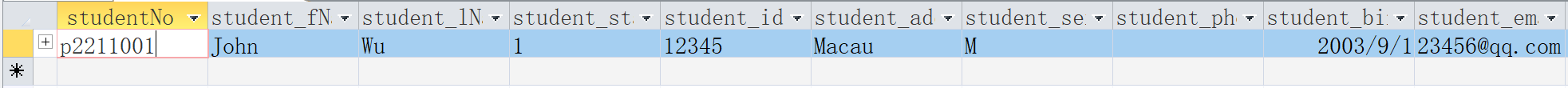
1. Update / delete the details of a student.  
     
   **UPDATE** student\_info

**SET** student\_phone = "",

student\_address = "Macau",

student\_email = "23456@qq.com"

**WHERE**

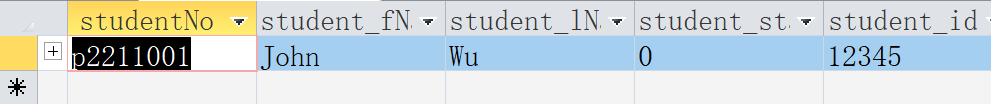
 studentNo = "p2211001";

**UPDATE** student\_info

**SET** student\_status = "0"

**WHERE**

studentNo = "p2211001";



1. Update / delete the details of a course.

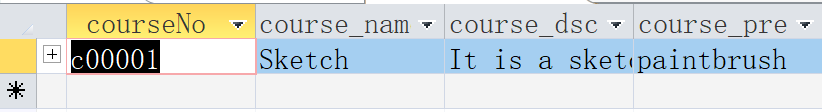
**UPDATE** course\_info

**SET** course\_dsc = "It is a sketch class.",

course\_pre = "paintbrush"

**WHERE**

courseNo = "c00001";



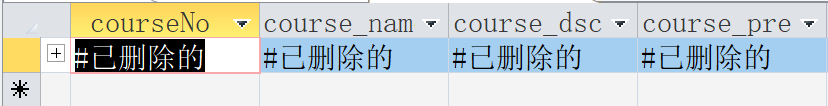
**DELETE**

**FROM**

course\_info

**WHERE**

courseNo = “c00001”;



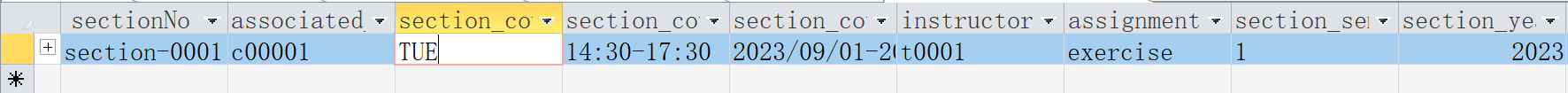
1. Update/Delete the details of a class section.

**UPDATE** class\_section\_info

**SET** assignment = "exercise",

section\_course\_day = "TUE"

**WHERE**

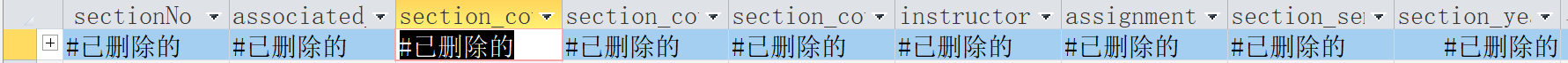
****sectionNo = "section-0001";

**DELETE**

**FROM**

class\_section\_info

**WHERE**

sectionNo = "section-0001";

1. Update the details of a class material.

**UPDATE** course\_material\_info

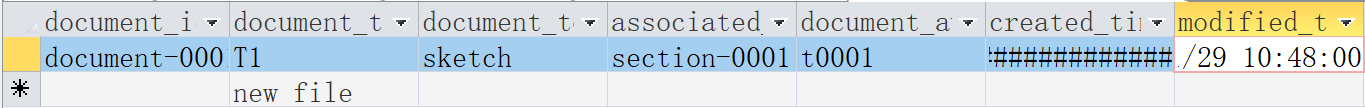
**SET** document\_title = "T1",

document\_topic = "sketch",

modified\_time = #2023-11-29 10:48:00#

**WHERE**

document\_id = "document-0001";



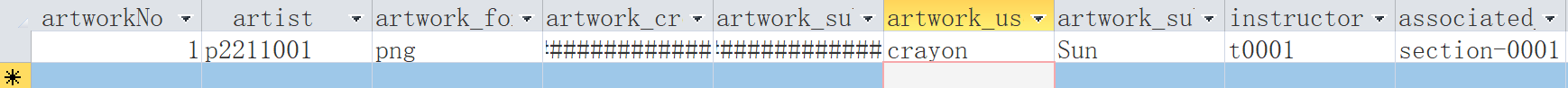
1. Update/Delete the details of an artwork.

**UPDATE** artwork\_info

**SET**

artwork\_format = "png"

**WHERE**

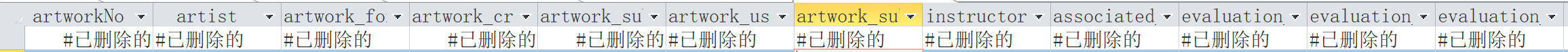
 artworkNo = 1;

**DELETE**

**FROM**

artwork\_info

**WHERE**

 artworkNo = 1;

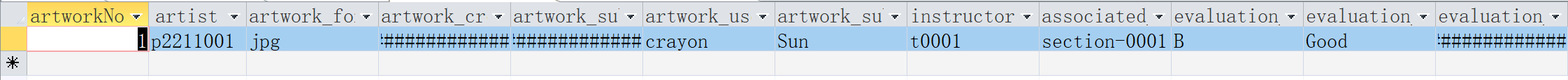
1. Update the details of an evaluation of the artwork.  
   **UPDATE** artwork\_info

**SET** evaluation\_grade = "B",

evaluation\_remark = "Good",

evaluation\_written\_date = #2023-11-29 10:48:00#

**WHERE**

 artworkNo = 1;

**Data Queries:**

The database should be capable of supporting the following sample queries:

1. List the classes assigned to a given instructor.

(To make the selection more detailed, we insert one more teacher and 2 related section)  
**SELECT**

a.staff\_fName,

a.staff\_lName,

b.\*

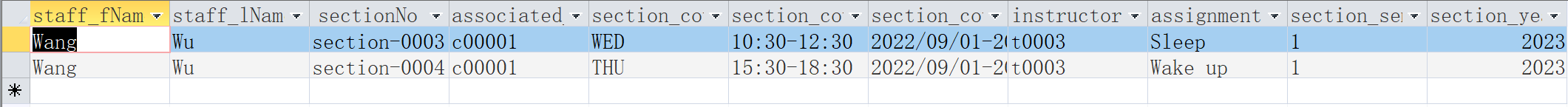
**FROM**

staff\_info a

**INNER JOIN** class\_section\_info b **ON** b.instructor = a.staffNo

**WHERE**

b.instructor = "t0003"

 **and** a.staff\_status = "1";

1. Identify the total number of enrolled students.

(To make the selection more detailed, we insert two more students and 5 related enrollment)  
**SELECT COUNT(**\***) AS** total\_enroll\_student

**FROM**

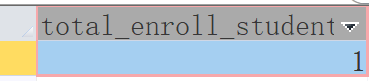
**(SELECT DISTINCT** a.studentNo

**FROM** student\_section\_registration **AS** a

**INNER JOIN** student\_info **AS** b **ON** b.studentNo = a.studentNo

**WHERE** a.enroll\_date > #2023-09-01# **AND** b.student\_status = "1"**) AS** subquery;

(Because of banned row of “p2211001” and previous record of “p2211002”, there is only one record of “p2211003”)



1. Search for student’s artwork and its associated course, assignment.   
   **SELECT**

d.student\_fName AS artist\_fName,

d.student\_lName AS artist\_lName,

a.artwork\_created\_time AS created\_time,

a.artwork\_submitted\_time AS submitted\_time,

a.artwork\_format AS artwork\_format,

a.artwork\_subject AS artwork\_subject,

a.artwork\_used\_medium AS artwork\_used\_medium,

e.staff\_fName AS instructor\_fName,

e.staff\_lName AS instructor\_lName,

c.course\_name AS course\_name,

b.assignment AS assignment

**FROM**

(((artwork\_info a

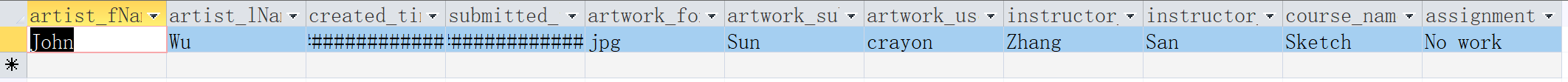
**INNER JOIN** class\_section\_info b **ON** a.associated\_section = b.sectionNo)

**INNER JOIN** staff\_info e **ON** a.instructor = e.staffNo)

**INNER JOIN** course\_info c **ON** b.associated\_course = c.courseNo)

**INNER JOIN** student\_info d **ON** a.artist = d.studentNo

**WHERE**

d.studentNo = "p2211001";

1. Search for the evaluation of student’s artwork.   
   **SELECT**

a.artworkNo,

d.student\_fName **AS** artist\_fName,

d.student\_lName **AS** artist\_lName,

a.artwork\_subject **AS** theme,

e.staff\_fName **AS** instructor\_fName,

e.staff\_lName **AS** instructor\_lName,

c.course\_name **AS** course,

b.assignment **AS** assignment,

a.evaluation\_grade **AS** grade,

a.evaluation\_written\_date **AS** written\_date,

a.evaluation\_remark **AS** remark

**FROM**

(((artwork\_info a

**INNER JOIN** class\_section\_info b **ON** a.associated\_section = b.sectionNo)

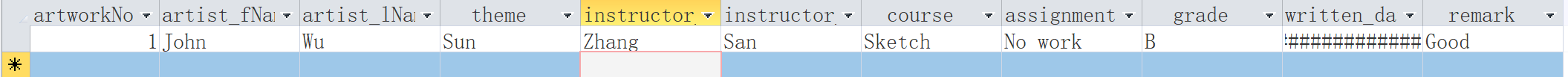
**INNER JOIN** student\_info d **ON** a.artist = d.studentNo)

**INNER JOIN** staff\_info e **ON** a.instructor = e.staffNo)

**INNER JOIN** course\_info c **ON** b.associated\_course = c.courseNo

**WHERE**

a.artist = "p2211001"

 **AND** a.evaluation\_written\_date **IS NOT NULL**;

1. Search for the class materials.   
   **SELECT**

c.course\_name,

a.document\_topic,

a.document\_title,

a.document\_author,

a.created\_time,

a.modified\_time

**FROM**

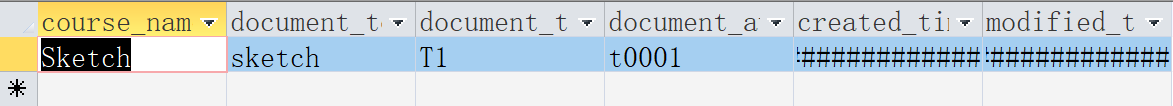
(course\_material\_info a

**INNER JOIN** class\_section\_info b **ON** a.associated\_section = b.sectionNo)

**INNER JOIN** course\_info c **ON** c.courseNo = b.associated\_course

**WHERE**

a.document\_id = "document-0001";

****

1. Search a student’s class by time, and course name.  
   **SELECT**

b.student\_fName **AS** student\_fName,

b.student\_lName **AS** student\_lName,

d.course\_name,

c.section\_course\_day,

c.section\_course\_time,

c.section\_course\_duration,

e.staff\_fName,

e.staff\_lName,

c.assignment,

c.section\_semester,

c.section\_year

**FROM**

(student\_course\_registration a

**INNER JOIN** student\_info b **ON** b.studentNo = a.studentNo)

**INNER JOIN** ((class\_section\_info c

**INNER JOIN** course\_info d **ON** c.associated\_course = d.courseNo)

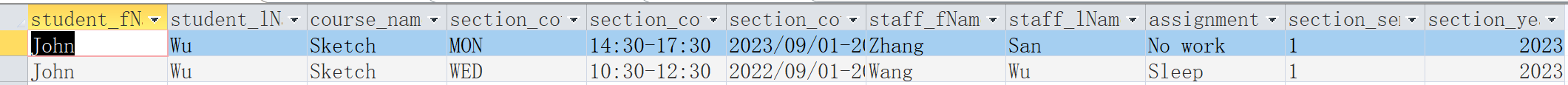
**INNER JOIN** staff\_info e **ON** c.instructor = e.staffNo)

**ON** c.sectionNo = a.sectionNo

**WHERE**

a.studentNo = "p2211001"

**AND** a.enroll\_date > #2023-09-01 00:00:00#

 **AND** d.course\_name = "Sketch";