

**ITEC 3335**  
**Database Development**  
**Fall 2018**  
**Homework #5**

**More SQL**

Install the database toyu in your MySQL by [executing the sql file: toyu.sql.txt](#) in MySQL console. This assignment uses toyu.

**Q1 to Q4: on DDL and DML writing**

Write SQL statements for the following problems.

(1) The student with id 100001 has received a new grade of A in the class with id 10000.

Before your SQL statement:

```
MariaDB [toyu]> select * from enroll;
```

stuId	classId	grade
100000	10000	A
100001	10000	NULL
100002	10000	B-
100000	10001	A
100001	10001	A-
100000	10002	B+
100002	10002	B+
100000	10003	A
100002	10003	B-
100004	10003	A
100005	10003	NULL
100000	10004	A-
100004	10004	B+
100005	10004	A-
100006	10004	C+
100005	10005	A-
100006	10005	A
100005	10006	B+
100007	10007	B+
100008	10007	C-
100007	10008	A

```
21 rows in set (0.00 sec)
```

After executing your SQL statement:

```
MariaDB [toyu]> select * from enroll;
```

stuId	classId	grade
100000	10000	A
100001	10000	A
100002	10000	B-
100000	10001	A

100001	10001	A-
100000	10002	B+
100002	10002	B+
100000	10003	A
100002	10003	B-
100004	10003	A
100005	10003	NULL
100000	10004	A-
100004	10004	B+
100005	10004	A-
100006	10004	C+
100005	10005	A-
100006	10005	A
100005	10006	B+
100007	10007	B+
100008	10007	C-
100007	10008	A

21 rows in set (0.00 sec)

(2) Create a temporary table `faculty_more` that has all the columns and keys of the table `faculty`, plus an additional column `department`, which is the same column as `deptName` column of `department`. (Note that this is not a well-designed relation. It is just for the purpose of practicing.)

After executing your SQL statement:

```
MariaDB [toyu]> desc faculty_more;
```

Field	Type	Null	Key	Default	Extra
facId	int(11)	NO	PRI	NULL	
fname	varchar(20)	NO		NULL	
lname	varchar(20)	NO		NULL	
deptCode	varchar(4)	NO	MUL	NULL	
department	varchar(30)	NO		NULL	
rank	varchar(25)	YES		NULL	

6 rows in set (0.05 sec)

(3) Populate `faculty_more` using the contents of existing tables.

After executing your SQL statement:

```
MariaDB [toyu]> select * from faculty_more;
```

facId	fname	lname	deptCode	department	rank
1011	Paul	Smith	CSCI	Computer Science	Professor
1012	Mary	Tran	CSCI	Computer Science	Associate Professor
1013	David	Love	CSCI	Computer Science	Associate Professor
1014	Sharon	Mannes	CSCI	Computer Science	Assistant Professor
1015	Daniel	Kim	CINF	Computer Information Systems	Professor
1016	Andrew	Byre	CINF	Computer Information Systems	Associate Professor
1017	Deborah	Gump	ITEC	Information Technology	Professor
1018	Art	Allister	ARTS	Arts	Assistant Professor
1019	Benjamin	Yu	ITEC	Information Technology	Lecturer
1020	Katrina	Bajaj	ENGL	English	Lecturer
1021	Jorginlo	Neymar	ACCT	Accounting	Assistant Professor

11 rows in set (0.00 sec)

(4) Remove all lecturers from faculty\_more.

After your SQL statement:

```
MariaDB [toyu]> select * from faculty_more;
```

facId	fname	lname	deptCode	department	rank
1011	Paul	Smith	CSCI	Computer Science	Professor
1012	Mary	Tran	CSCI	Computer Science	Associate Professor
1013	David	Love	CSCI	Computer Science	Associate Professor
1014	Sharon	Mannes	CSCI	Computer Science	Assistant Professor
1015	Daniel	Kim	CINF	Computer Information Systems	Professor
1016	Andrew	Byre	CINF	Computer Information Systems	Associate Professor
1017	Deborah	Gump	ITEC	Information Technology	Professor
1018	Art	Allister	ARTS	Arts	Assistant Professor
1021	Jorginlo	Neymar	ACCT	Accounting	Assistant Professor

```
9 rows in set (0.00 sec)
```

## Q5 to Q8: DML Data Retrieval

Re-install the database toyu in your MySQL by [executing the sql file: toyu.sql.txt](#) in MySQL console again so you start with the original instance.

Write SQL SELECT queries for the following problems.

(5) List the student names, their majors and credits for those with credits between 30 and 80 in the following format. Note the names of the result columns. The result is shown in the descending order of the number of credits.

student	major	Number of credits
David Hawk	CSCI	66
Larry Johnson	ITEC	66
Tony Hawk	CSCI	40
Mary Hawk	CSCI	35

```
4 rows in set (0.00 sec)
```

(6) List the names of the faculty members who do not teach any CSCI course. Be mindful of the result column name.

faculty not teaching CSCI classes
Sharon Mannes
Daniel Kim
Andrew Byre
Deborah Gump
Art Allister
Benjamin Yu
Katrina Bajaj
Jorginlo Neymar

```
8 rows in set (0.00 sec)
```

(7) List the names of students taking both classes id #10000 and #10004.

```
+-----+
| student |
+-----+
| Tony Hawk |
+-----+
1 row in set (0.00 sec)
```

(8) List the names of students taking the class id #10000 but not #10004.

```
+-----+
| student |
+-----+
| Mary Hawk |
| David Hawk |
+-----+
2 rows in set (0.00 sec)
```

Submit an executable SQL text file with SQL statements. Naming convention should be the same for all homework submission: h<assignment number>\_itec3335\_<sid>\_<lastname>.<extension>. For example, H5\_itec3335\_0111006\_Bond\_Jane.sql.txt.