

DASC 5333 Database Systems for Data Science
CSCI 4333 Design of Database Systems
Fall 2024
Homework #1 Simple SQL

This assignment uses the toyu database in MySQL or MariaDB:
<https://dcm.uhcl.edu/yue/courses/joinDB/fall2024/notes/toyu/toyu.html>.

Provide the MySQL commands for the following queries. Make sure that your queries produce the exact output as shown below (however, row orders can be different).

The solution should be put in an executable .sql file. Name the file: CSCI4333_S<<Section Number>>_H1_<<Your name>>_<<Your Student ID>>.<<extension>>. Replace 'CSCI4333' by 'DASC533' if needed. For example: DASC5333_S1_H1_Smith_Mary.sql.txt. Submit your homework through Canvas. Add the extra extension .txt to submit to Canvas as it may disallow the upload of .sql file.

[1] List the stuId, names, major departments and minor code of all students minoring in CSCI, CINF or ITEC in the following manner.

```
+-----+-----+-----+-----+
| stuId | student          | major          | minor |
+-----+-----+-----+-----+
| 100000 | Tony Hawk        | Computer Science | CINF  |
| 100001 | Mary Hawk        | Computer Science | CINF  |
| 100002 | David Hawk        | Computer Science | ITEC  |
| 100003 | Catherine Lim    | Information Technology | CINF  |
| 100006 | Lillian Johnson  | Computer Information Systems | ITEC  |
| 100009 | Linda King       | Arts           | CSCI  |
+-----+-----+-----+-----+
6 rows in set)
```

[2] Repeat [1]. Include only students with a faculty advisor, and list also their faculty advisor names in the following manner.

```
+-----+-----+-----+-----+-----+
| stuId | student          | major          | minor | advisor |
+-----+-----+-----+-----+-----+
| 100000 | Tony Hawk        | Computer Science | CINF  | Paul Smith |
| 100001 | Mary Hawk        | Computer Science | CINF  | Paul Smith |
| 100002 | David Hawk        | Computer Science | ITEC  | Mary Tran  |
| 100006 | Lillian Johnson  | Computer Information Systems | ITEC  | Andrew Byre |
| 100009 | Linda King       | Arts           | CSCI  | Art Allister |
+-----+-----+-----+-----+-----+
5 rows in set)
```

[3] Repeat [2] but add the condition to show all students majoring or minoring in 'CSCI', 'CINF' or 'ITEC';

```
+-----+-----+-----+-----+-----+
| stuId | student          | major          | minor | advisor |
+-----+-----+-----+-----+-----+
| 100009 | Linda King       | Arts           | CSCI  | Art Allister |
| 100005 | Linda Johnson    | Computer Information Systems | ENGL  | Daniel Kim  |
| 100006 | Lillian Johnson  | Computer Information Systems | ITEC  | Andrew Byre |
| 100000 | Tony Hawk        | Computer Science | CINF  | Paul Smith  |
+-----+-----+-----+-----+-----+
```

```

| 100001 | Mary Hawk      | Computer Science | CINF | Paul Smith |
| 100002 | David Hawk     | Computer Science | ITEC | Mary Tran  |
| 100004 | Larry Johnson  | Information Technology | NULL | Deborah Gump |
+-----+-----+-----+-----+-----+
7 rows in set

```

[4] List the class grade information of all courses taught by a CSCI faculty member in the following manner.

```

+-----+-----+-----+-----+-----+-----+-----+
| stuId | student      | classId | course | course title | grade | faculty |
+-----+-----+-----+-----+-----+-----+-----+
| 100000 | Tony Hawk    | 10000   | CSCI 3333 | Data Structures | A     | Paul Smith |
| 100001 | Mary Hawk    | 10000   | CSCI 3333 | Data Structures | NULL  | Paul Smith |
| 100002 | David Hawk   | 10000   | CSCI 3333 | Data Structures | B-    | Paul Smith |
| 100000 | Tony Hawk    | 10001   | CSCI 4333 | Design of Database Systems | A     | Paul Smith |
| 100001 | Mary Hawk    | 10001   | CSCI 4333 | Design of Database Systems | A-    | Paul Smith |
| 100000 | Tony Hawk    | 10002   | CSCI 5333 | DBMS | B+    | Mary Tran  |
| 100002 | David Hawk   | 10002   | CSCI 5333 | DBMS | B+    | Mary Tran  |
| 100000 | Tony Hawk    | 11001   | CSCI 4333 | Design of Database Systems | D     | Mary Tran  |
| 100000 | Tony Hawk    | 10003   | CINF 3321 | Introduction to Information Systems | C     | Sharon Mannes |
| 100002 | David Hawk   | 10003   | CINF 3321 | Introduction to Information Systems | D     | Sharon Mannes |
| 100004 | Larry Johnson | 10003   | CINF 3321 | Introduction to Information Systems | A     | Sharon Mannes |
| 100005 | Linda Johnson | 10003   | CINF 3321 | Introduction to Information Systems | NULL  | Sharon Mannes |
| 100000 | Tony Hawk    | 10004   | CINF 4320 | Web Application Development | A-    | Sharon Mannes |
| 100004 | Larry Johnson | 10004   | CINF 4320 | Web Application Development | B+    | Sharon Mannes |
| 100005 | Linda Johnson | 10004   | CINF 4320 | Web Application Development | A-    | Sharon Mannes |
| 100006 | Lillian Johnson | 10004   | CINF 4320 | Web Application Development | C+    | Sharon Mannes |
+-----+-----+-----+-----+-----+-----+-----+
16 rows in set

```

[5] List the students who have taken two or more classes in the year 2019 in the following manner.

```

+-----+-----+
| stuId | student |
+-----+-----+
| 100000 | Tony Hawk |
| 100001 | Mary Hawk |
| 100002 | David Hawk |
| 100004 | Larry Johnson |
| 100005 | Linda Johnson |
| 100006 | Lillian Johnson |
| 100007 | Ben Zico |
+-----+-----+
7 rows in set

```