

# Database Systems

## Spring 2026

### Homework #1 Simple SQL

This assignment uses the toyu database in MySQL or MariaDB:  
<https://dcm.uhcl.edu/yue/courses/joinDB/spring2026/notes/toyu/toyu.html>.

Provide the MySQL queries for the following queries. Make sure that your queries produce the exact output as shown below. Nevertheless, unless stated explicit otherwise, *row orders can be different*.

The solution should be put in an *executable* .sql file named h1.sql. Submit your homework through Canvas. You may need to add the extension .txt at the end. The TA will download and execute your script .sql file to check whether it produces the expected results.

[1] List the stuId, names and credits of students majoring in CSCI and have 30 to 60 credits (ach) in the following format.

```
+-----+-----+-----+-----+
| stuId | fname | lname | credits |
+-----+-----+-----+-----+
| 100000 | Tony  | Hawk  | 40      |
| 100001 | Mary  | Hawk  | 35      |
+-----+-----+-----+-----+
2 rows in set (0.001 sec)
```

[2] List the student names of minoring in CINF or ITEC with classes (classId) and grades they have taken in the following manner.

```
+-----+-----+-----+-----+
| fname | lname | classId | grade |
+-----+-----+-----+-----+
| Tony  | Hawk  | 10000   | A      |
| Tony  | Hawk  | 10001   | A      |
| Tony  | Hawk  | 10002   | B+     |
| Tony  | Hawk  | 10003   | C      |
| Tony  | Hawk  | 10004   | A-     |
| Tony  | Hawk  | 11001   | D      |
| Mary  | Hawk  | 10000   | NULL   |
| Mary  | Hawk  | 10001   | A-     |
| David | Hawk  | 10000   | B-     |
| David | Hawk  | 10002   | B+     |
| David | Hawk  | 10003   | D      |
| Lillian | Johnson | 10004   | C+     |
| Lillian | Johnson | 10005   | A      |
+-----+-----+-----+-----+
13 rows in set (0.001 sec)
```

[3] Repeat (b) but also list the course names in the following manner. Furthermore, if a grade is missing, show an empty string.

```
+-----+-----+-----+-----+-----+
| fname | lname | classId | Course Title | grade |
+-----+-----+-----+-----+-----+
| Tony  | Hawk  | 10000   | Data Structures | A      |
| Tony  | Hawk  | 10001   | Design of Database Systems | A      |
| Tony  | Hawk  | 10002   | DBMS | B+     |
| Tony  | Hawk  | 10003   | Introduction to Information Systems | C      |
| Tony  | Hawk  | 10004   | Web Application Development | A-     |
| Tony  | Hawk  | 11001   | Design of Database Systems | D      |
+-----+-----+-----+-----+-----+
```

Mary	Hawk	10000	Data Structures		
Mary	Hawk	10001	Design of Database Systems	A-	
David	Hawk	10000	Data Structures	B-	
David	Hawk	10002	DBMS	B+	
David	Hawk	10003	Introduction to Information Systems	D	
Lillian	Johnson	10004	Web Application Development	C+	
Lillian	Johnson	10005	Database Development	A	

13 rows in set (0.001 sec)

[4] Repeat (c) in the following manner. Add a column to show the name of the instructor.

student	classId	Course Title	instructor	grade
Tony Hawk	10000	Data Structures	Paul Smith	A
Tony Hawk	10001	Design of Database Systems	Paul Smith	A
Tony Hawk	10002	DBMS	Mary Tran	B+
Tony Hawk	10003	Introduction to Information Systems	Sharon Mannes	C
Tony Hawk	10004	Web Application Development	Sharon Mannes	A-
Tony Hawk	11001	Design of Database Systems	Mary Tran	D
Mary Hawk	10000	Data Structures	Paul Smith	
Mary Hawk	10001	Design of Database Systems	Paul Smith	A-
David Hawk	10000	Data Structures	Paul Smith	B-
David Hawk	10002	DBMS	Mary Tran	B+
David Hawk	10003	Introduction to Information Systems	Sharon Mannes	D
Lillian Johnson	10004	Web Application Development	Sharon Mannes	C+
Lillian Johnson	10005	Database Development	Daniel Kim	A

13 rows in set (0.002 sec)

[5] List all student names, with their major department names and their faculty advisor names in the following manner. Include only students who have [1] a declared minor, [2] a faculty advisor, and [3] enrolled in at least one classes.

student	major	advsiior
Tony Hawk	Computer Science	Paul Smith
Mary Hawk	Computer Science	Paul Smith
David Hawk	Computer Science	Mary Tran
Linda Johnson	Computer Information Systems	Daniel Kim
Lillian Johnson	Computer Information Systems	Andrew Byre

5 rows in set (0.001 sec)