

# Assignment 2: SQL

## INDIVIDUAL PROJECT (20%)

**Acknowledgment to Dr. Greg Wadley from The University of Melbourne to help us design this assignment.**

### Setup Script

To set up the database in your MySQL server, download the file AssignmentSetup.sql from Canvas and run it in Workbench. This script creates the schema and database tables and populates them with data.

### The SQL queries required

In this section are listed 15 questions for you to answer. Write **one** SQL statement per question. Do *not* use *views* or *temporary tables* to answer the questions. Where it would improve readability, order your output, and use aliases. Format large numbers and fractions appropriately.

Beside each question is a maximum mark which reflects the difficulty of that question. Your total score will be scaled to 15% of your overall marks in the subject.

Your work will be assessed on the correctness and simplicity of the SQL that you write. (A query that produces correct output but is more complex than it needs to be, for example joining more tables than is necessary, may not achieve full marks, even if it produces the correct results.)

## Question

1. Write and type the names of all the employees in department 1 ?
2. Find the items sold by at least two departments on the second floor
3. List the departments having an average salary of over 25000.
4. Find the numbers and names of the employees who earn more than their manager
5. Type the query to find the average salary of employees in the Clothes department
6. List the name and salary of the managers with more than 2 employees
7. Find the supplier id and supplier names that deliver compasses
8. Write and type the query that finds the name and salary of Clare's manager
9. Whom does Todd manage?
10. Find the departments that have never sold a geo positioning system
11. Find, for each item, the total quantity sold by the departments on the second floor
12. Who earns the lowest salary?
13. Find, for each department on the second floor, the average salary of the employees
14. Find the first name of Sophie's boss.
15. Find bosses who are in the same department as their employees

## Submission

Submit a single PDF showing your ten answers to Canvas by midnight on the due date of Monday 3 December.

Ensure that you place your name and student number at the top of every page of your submission. For each question, present an answer in the following format:

- Show the question number and question in black text.
- Show your answer (the SQL statement) in **blue text (not a screen shot)**
- Show a screenshot from Workbench showing output of 10 or fewer lines.
- Show how many rows were returned, in **red text**

For example:

7. List all users with the last name 'Altman'

```
SELECT *
FROM User
WHERE lastName = 'Altman';
```

Id	FirstName	LastName
1376	Robert	Altman
2880	Mark	Altman
10308	Robert	Altman
21472	Harry	Altman
21722	Robert	Altman

5 Rows Returned

SQL queries must be formatted in an easy-to-read manner. This means writing keywords in allcaps, placing most clauses on new lines, and indenting subqueries. For example, **this is acceptable**:

```
SELECT DISTINCT ItemID
FROM Sale
WHERE DepartmentID IN
    (SELECT DepartmentID FROM Department
     WHERE Department.DepartmentID = Sale.DepartmentID
     AND DepartmentFloor = 2);
```

whereas this is **not acceptable**:

```
select distinct itemid from sale where departmentid in (select departmentid from department
where department.departmentid = sale.departmentid and departmentfloor = 2);
```

## Academic Honesty

This assignment must be your own work. Plagiarism - the copying of another's work without proper acknowledgment - is not permitted. Nor is allowing another person to copy your work. Work submitted for assessment purposes must be the independent work of the student concerned.

Academic misconduct occurs when students portray someone else's work as their own. There are many ways in which academic misconduct can occur. Some of these are:

- **Sham Paraphrasing:** Material copied verbatim from text and source acknowledged in-line but represented as paraphrased.
- **Illicit Paraphrasing:** Material paraphrased from text without in-line acknowledgement of source.
- **Other Plagiarism:** Material copied from another student's assignment with the knowledge of the other student.
- **Verbatim Copying:** Material copied verbatim from text without in-line acknowledgement of the source.
- **Recycling:** Same assignment submitted more than once for different subjects.
- **Ghost Writing:** Assignment written by third party and represented as own work.
- **Purloining:** Assignment copied from another student's assignment or other person's papers without that person's knowledge.