

Worksheet 1

For this worksheet we will be using the MySQL database management system to create some tables and perform some queries.

Before you begin:

- Install MySQL on your computer, according to the guide on Moodle.
- Read the “**Working with MySQL**” document on Moodle.

Tasks

1. Log in to MySQL, create a database named “**worksheet1**” and start working in this database.
2. Create a table named **q1**, this table should have two attributes: an integer named **id** that is the **primary key** and string of exactly 144 characters named **message**.
3. Add a new attribute to the table created in the previous question using the **alter** command. The new attribute should have the domain **time** and be named **attime**.
4. Write the command to **drop** the table created in Question 2.
5. Create a table named **item**, this table should have three attributes;
 - An integer named **itemid**
 - A string of exactly 25 characters named **itemname**
 - A double precision floating point number named **itemprice**This table should also have the following constraints,
 - a. **itemid** should be the primary key of the table.
 - b. **itemname** and **itemprice** cannot be null values.
 - c. **itemname** must be unique
6. Create a table named **stocklist**, this table should have three attributes
 - An integer named **itemid** that increments automatically.
 - A string of exactly 40 characters named **shoplocation**
 - An integer value named **count**This table should also have the following constraints:
 - a. The combination of **itemid** and **shoplocation** should be the primary key of the table.

Load the employee.db file (downloaded from Moodle) into MySQL, using the instructions in the “Working with MySQL” document (You will need to log out of the MySQL command line first). This will create a new database named “employee” that you should use for the rest of the tasks below.

The tables in this database are as follows (you can see the MySQL definition of them by using “**DESCRIBE employees;**” and “**DESCRIBE departments;**”).
employees(**empno**, **firstname**, **familyname**, **job**, **salary**, **deptno**)

departments (deptno, deptname, office, division, managerno)

7. Write a query to find the name and salary of all employees.
8. Write a query to find the name and job of the employee with employee number 6542.
9. Write a query to find all details for any employee earning over 30000.
10. Write a query to find the name of the department that employee number 1345 works in (**Hint:** you will need a join for this question).
11. Change Denis Hickie's salary to be 30,000 (**Hint:** you should use the primary key for this type of update).
12. Delete the "Implementation" department from the database.
13. Insert a new department with the following information:
 - Department number: 60
 - Name: Sales
 - Office: Terenure
 - Division: D1
 - Manager: Tommy Bowe