# Lab 2 – Database

## Exercise 1

This lab focuses on refreshing your knowledge of MySQL and places it within the context of web applications. It also aims to introduce PHPMyAdmin to you in terms of table creation and query execution.

First, you need your credentials to gain access to your database. Write your username and password below (Your lab tutor will provide you with these) and save this document to your H: drive so you can quickly copy and paste this information in future labs:

Username: n0451564

Password: yLDvVXrl

Go to PHPMyAdmin and log in: <http://jawa.ads.ntu.ac.uk/phpmyadmin>

Familiarise yourself with the layout and functionality of the interface; take note of your database name which should look like the following (with your student number in place of the example):

*m\_soft20171\_n0123456*

You will be creating a couple of tables that will provide a DB back end to your skills portfolio (started last lab session).

Now create the following table using the interface provided:

**Table Name**

tbl\_books

**Fields (name (data type, size, other information)**

ID (INT, 11, PRIMARY, A\_I)

author (VARCHAR, 50)

title (VARCHAR, 50)

publisherid (VARCHAR, 50)

description (VARCHAR, 200)

unitprice (INT, 11)

quantity (INT, 11)

Populate the table with a few records for testing using PHPMyAdmin’s insert interface.

Try to insert a record using MySQL’s INSERT INTO statement (refer to the lecture slides for more information and guidance for using this).

When you have a few records in the table click on browse and examine the MySQL query that was generated to get the results in front of you.

Click on edit to modify the statement. For the following statements, refer to the lecture notes for guidance if needed.

Adapt the statement so that only the authors name and book titles are listed:

SELECT author, title FROM …

Adapt the statement so that only a specific author’s record is listed:

… WHERE author = “AUTHOR NAME”

Adapt the statement so that only books above a certain price are displayed:

… WHERE unitprice = VALUE

***Extras***

Refer to the lecture slides and try to formulate a query to delete a record.

Try to edit a record using MySQL’s UPDATE statement; for example, change the price of a book in your table.

## Exercise 2

Add a second table to your database with the following details:

**Table Name**

tbl\_publishers

**Fields**

Publisherid (INT, 11, PRIMARY)

publisherName (VARCHAR, 50)

Fill the table with some appropriate information ensuring the publisher id column has some matching values with the books table.

The syntax for a join is (from the lecture):

**SELECT [columns] FROM [table]**

**JOIN [other table]**

**ON [table.field] = [other table.field]**

Adapt this syntax to create a query that joins the two tables together finding all the publishers and their associated books.