Introduction to Databases (COMP2009)

Coursework instructions

In this coursework you will use the MySQL database management system to write queries to interrogate a small database called 'Shop'. You should submit your queries and results for marking. The coursework is binary marked, so you receive the full marks for a serious attempt at the coursework (whether or not you get the right answers).

phpMyAdmin is a graphical user interface client for MySQL. Select 'MySQL (phpMyAdmin interface)' from the course moodle page under the coursework tab for web access to an installation of the database system on the Computer Science department server.

You will see a screen warning you that the link is not safe and advising you to return. Ignore the warning and select 'Advance'. Then select the link 'Proceed to students.cs.ucl.ac.uk (unsafe)', since the warnings again don't apply. You will be asked for a user name ('student') and password ('db1coursework').

In the left hand pane, select the Shop database (by a single click). You will see a list of the tables contained in the Shop database. Now select the SQL tab in the right side pane. You can write SQL queries to retrieve data from the Shop database (submit them with the 'Go' button) but you cannot change the data in the database or the database structures. Note that MySQL uses an idiomatic form of SQL that may not entirely correspond with the ANSI standard for SQL or with other SQL idioms you may encounter elsewhere (e.g., necessity for a semi colon to demarcate a query).

Try these retrievals from the database: who ordered an S7? Make sure the Shop database is selected, then selecting the SQL tab, paste the following SQL statement and execute it by pressing the Go button:

```
SELECT orders.orderID, customers.custID, firstname, familyname FROM orders,
lineitems, customers
WHERE lineitems.itemID = 'S7'
AND orders.orderID = lineitems.orderID
AND orders.custID = customers.custID
```

How many customers live in each state? This query involves the use of an aggregate and a grouping clause.

```
SELECT state, COUNT( custID )
FROM `customers` GROUP BY state
```

The assignment questions

Create your own queries to answer the assignment questions found in the 'The query questions' file below these instructions on moodle.

For your submission, you should create **a single pdf file** containing a query and the corresponding result set for each of the query questions.

To save your results you should select the option 'Print View' below your displayed results to output both the query and the results to a single pdf file. Note that none of the queries produces large result sets (more than a page) and you should not submit multi-page results sets even if your (erroneous) query does. You should collate the pdfs into a single pdf and submit it at the link. Please note that we are only able to mark submissions presented as single pdf files, not archives of pdf files or any other format. Model answers will be published after the submission date.