**Core content homework assignment 0 (CC0)**

**Part A**

Set up a database server on your own Mac, Windows, or Linux machine, or a virtual machine. Open phpMyAdmin. Create a new database called wine. Import the file wine.sql into the new database.

A1. (30 points) Submit a screenshot of phpMyAdmin demonstrating that you have successfully imported wine.sql.

Browse the tables of the wine database to answer the following questions. Note that you should not need to submit any SQL queries to answer these questions. It should be possible to answer these questions using the functionality built into phpMyAdmin.

A2. (2 points) How many tables are there in the wine database?

A3. (2 points) How many columns are in the product table?

A4. (2 points) How many rows are in the supplies table?

A5. (2 points) How many null values are in the supplier table?

**Part B**

For each of the following descriptions, give an SQL query that would return the desired result from the wine database.

B1. (5 points) All information in the product table.

B2. (5 points) The name and status of every supplier.

B3. (5 points) The same as the previous question, but the supplier name column should be given the label “Name” rather than “SUPNAME”.

B4. (5 points) A list of all cities where suppliers are based, with each city listed exactly once.

B5. (5 points) The product number and name of all sparkling wines.

B6. (5 points) The name of every supplier whose status is between 20 and 90 inclusive.

B7. (5 points) The names of all red wines whose available quantity is less than 10.

**Part C**

C1. (20 points) Suppose you are the president of a national college club that has thousands of members. The society currently stores information about its members in a spreadsheet. In a few sentences of your own words, describe some of the advantages that could be gained by storing this information in a database instead of a spreadsheet.

C2. (5 points) In your own words, describe the notion of *transaction* as it applies to database systems.

C3. (5 points) What type of DBMS is MySQL? Choose from: hierarchical, network, relational, object-relational. Describe what this means in 1-2 sentences of your own words.

C4. (20 points) What are the four ACID properties of a database system? Give a brief plain-English description of each one, in your own words.

Total points on assignment: 123