Assessment Information

Assignment Number	1 (of 3)
Weighting	30%
Assignment Circulated	21/02/2018
Deadline	9/03/2018 at 12:30pm
Submission Mode	Electronic and Presentation
Learning outcome assessed	1 - Database System Design
Purpose of assessment	To demonstrate typical database system design tasks
Marking criteria	See lower part of page 2 of assignment specification
Submission necessary in order to satisfy Module requirements?	No
Late Submission Penalty	Standard UoL Policy

Assessment Task Weighting

There will be a total of three assignments.

Assignment 1:   30%
Assignment 2:   35%
Assignment 3:   35%

Each of the subsequent assignments will be a progression of the previous completed assignment.

Introduction

Your task for this assignment is as a group to submit a design specification report for a database system based on the scenario provided to you. You must also give a 15 minute presentation of your design, taking into account the design concepts discussed during the lectures. Your group will design the database and specify a server system to support it.

Criteria

You have been tasked with designing and specifying a new database system. You will implement the database using the departmental MySQL server. In your report you will also need to specify suitable hardware to host your database (i.e. NOT the departmental mySQL server). Please note that your manager does not want an entirely cloud-based solution.

Your database tables should be based on the Relational Model and should be designed to minimise repetition or duplication of information.

You will supply some sample data that suitably test and defines the relationships between your tables. Your report should include at least 50 rows of sample data distributed between your tables (a total of 50 or more rows, not 50 rows in each table).

You will specify the computer system hardware and include any environment or infrastructure considerations required to support your database system. You should include an estimate of the budget required for this system.

Assessment

Your report should have a title page and introduction, and include the following three distinct sections:

- Database design:
  You should detail the database design, including the structure and names of your tables, specifying all primary keys. You should also explain the database design with regard to how the tables relate to each other, how your database structure reduces duplication of data and how each table logically groups information.

- Server Design Consideration:
  Hardware: You should show your reasoning for specifying disk types and disk sizes.

- Sample data:
  You should include at least 50 rows of data distributed between your tables.

Your presentation should last 15 minutes and have a title slide and slide to introduce to your scenario. It should explain your database design and highlight your hardware choices.

Marking:

Marks for the report (worth 50% of this assignment) are allotted as follows:

Database Design:	12 marks
Sample Data:	5 marks
Server Design Consideration:	10 marks
Quality of overall report:	23 marks

Marks for the presentation (worth 50% of this assignment) are based on the following aspects (all of which have equivalent weighting):

Presentation itself: Fluency / Succinctness / Timekeeping / Slides (clarity / amount of content)
Database design: Appropriateness to the scenario / Primary and Foreign Keys defined / Normalised appropriately
Hardware: Appropriateness to the scenario

In addition to the group report and presentation, each student will produce a single A4 report outlining their individual contribution to the project, their learning experiences, as well as an assessment of their own contribution and that of the other team members to the project. Individual report and peer assessment will be used to derive an assessment of each individual student, moderating the assessment of the work of the group.

Plagiarism:

This work will be checked for plagiarism. Any part of the submitted work that is found to be plagiarised will be treated in accordance with University plagiarism policy.

Submission

The group should submit via the department's electronic submission system:-
- A single PDF report document of your design. The document should be in English and formatted for A4. Any other format or document type will not be marked.

- A CSV (comma delimited text file) of some sample data for each of your tables including the column headings (one file per table, using the table name)
- A PDF or PowerPoint file of your presentation slides

You should submit your individual A4 report.

Both reports (PDF document) should be in English and formatted for A4. Any other format or document type will not be marked.

The group report document should include a title page, with the number and name of your group, the names and student IDs of your group members, and the date of completion. It should include a contents page, an introduction, a database design section, a hardware specification section and a conclusion.

The individual report should include at the start your Name and Student ID and your group number and name.

Deadline

The deadline for this assignment is:

<p style="text-align:center; color:red; font-size:1.5em;">Friday, 9 March 2018, 12:30</p>

Late submissions will be penalised using the standard procedure for late submissions; See https://www.liverpool.ac.uk/media/livacuk/tqsd/code-of-practice-on-assessment/code_of_practice_on_assessment.pdf for details.

Learning Outcomes

This assessment will test the "design and structure an efficient scalable database system" learning outcome.