



INMT5526: Business Intelligence

Quiz One – Semester One, 2024

Quiz Opens: 9:59AM (AWST), Friday 5 April, 2024

Quiz Closes: 9:59PM (AWST), Friday 5 April 2024

Please read the following instructions **carefully** before completing the Assessment:

- a. This quiz contains eight (8) questions worth a total of thirty-two (32) marks. Attempt to answer all eight (8) questions to the best of your ability. Your final score (out of 32) will form part of your final unit mark, as detailed in the Unit Outline – which is available at any time via LMS;
- b. You must answer and complete these questions utilising the skills and techniques taught in the unit through the learning activities (lectures and laboratories) and readings. If there is a disagreement between the readings and the learning activities, then the learning activities take precedence;
- c. If you are unsure as to whether or not there is an ambiguity or error in the question, state any assumptions you have made to interpret the question, before answering the question;
- d. You must answer each question in a word-processed document in one of the following formats (either .docx, .doc, .rtf or optionally if appropriate .txt). Other formats (e.g. .pdf or .pages) will not be accepted. Ensure that each answer is marked clearly as to which question it is referring to – how you do so is up to you. Do **not** include the content of the original questions in your answers;
- e. You must upload your answers to the Turnitin submission portal linked to under the Assessment section of LMS. It is your responsibility to ensure that your submission has been uploaded correctly; that is the correct file, in the correct format and not corrupted or similar;
- f. By its nature, this is an open book assessment. However, your submission must be your own work that complies with the [UWA guidelines for student academic conduct](#), as linked. Notably, this means you must not plagiarise – your work must be your own and in the rare case that you are required to refer to someone else's' ideas, you must correctly cite the relevant work(s), which must be reliable and appropriate, in a format espoused by the UWA Library;
- g. This means that you cannot work with others and that artificial intelligence tools cannot be used for completing this assessment. You should not discuss the assessment with others until such time as the results of the assessment are released. Please do note that you may be asked to explain your answers after the quiz;
- h. If you are unable to complete the assessment in the scheduled timeframe, it is your responsibility to apply for Special Consideration. Application is not a guarantee that Special Consideration is granted. If it is not granted, then you will be required to complete the quiz at the scheduled time, otherwise standard late penalties will apply;
- i. If you have a UniAccess letter and it has been provided to the Unit Coordinator, the provisions in this letter apply (where applicable) and should be considered instead of automated guidance provided via LMS;
- j. Please contact only the Unit Coordinator (Tristan) if you have any issues, via email at tristan.reed@uwa.edu.au, however please note the above as there may be a delay in replying.

Please proceed to the next page to see the content of this assessment.

Yasmine is building a database for her business that sells cookies. Each individual cookie has a type (e.g. Choc Chip, Double Choc) and weight (in whole grams) associated with it, alongside the date when it was baked (the time does not matter). Each cookie can only be sold whole and to one customer – although it does not matter who it is. Yasmine is interested in storing the details regarding each cookies' transaction, that is, which cookie belongs to which transaction, the total price of the transaction (the sum of all cookies in the transaction, manually calculated) and the payment method (e.g. Apple Pay, American Express, Cash).

Question One

(5 marks)

Draw an entity-relationship diagram that shows the entities, relationships and attributes described in the above blurb describing a business problem. To make things easier, you may wish to use a different program to do this and include the image within your response – it is up to you.

Question Two

(5 marks)

Write the commands required to create the tables you have identified in your diagram from Question One above. Ensure that any relevant keys and constraints are created when you do so, in an efficient manner.

Question Three

(3 marks)

Think of one piece of example data (what it is, is up to you) for each attribute of each table that you created in Question Two above. Write the commands required to add the data to each of the tables above.

Question Four

(5 marks)

Write a command to retrieve a list of how many cookies of any type were cooked in each month of this year and last year from the relevant table from Question Two. Name this volume of cookies `numCookies`. The behaviour for months where there are no sales of a particular type is up to you.

Question Five

(4 marks)

Identify the four basic types of commands that are utilised within a MySQL table to manipulate data by the first word utilised within the commands and then a sentence describing what each of these commands does.

Question Six

(3 marks)

How many levels do you think there are in the analytical hierarchy? What are those levels? Justify, in a short paragraph or so why you have chosen this many levels with reference to the various types of analytics that may be considered.

Question Seven

(4 marks)

In no more than a paragraph, compare and contrast the two methods used to identify and interrogate the data structure of a particular table. You may wish to do so by providing an advantage and disadvantage of each method, alongside identifying what the method is.

Question Eight

(3 marks)

Reflect upon your entity-relationship diagram that you created in Question One. What was the most difficult part of creating the diagram? Next, identify one issue that you had in creating it – which may be something where you had two options to choose from in one part of creating it and you chose one way of the two. Finally, identify how you could have done this a different way.

End of Quiz One.