MIS781 – Business Intelligence and Database – Trimester 1 2024
Assessment Task 1 – Group Assignment: Database Design and Report

DUE DATE:	**Thursday 11 April 2024 (Week 5) by 8:00pm (Melbourne time)**
PERCENTAGE OF FINAL GRADE:	**20%**
WORD COUNT:	**2999 words**

Description

Purpose

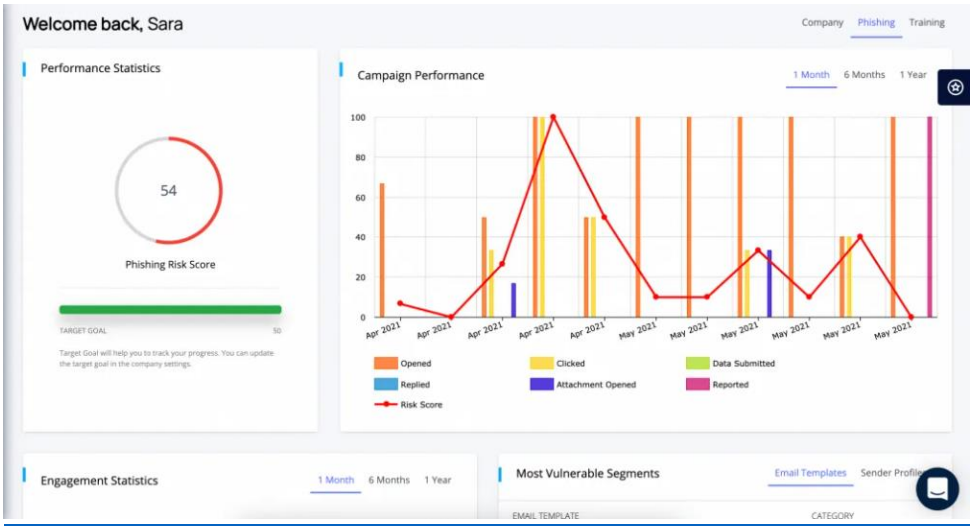
This task provides you with opportunities to learn the knowledge (GLO1 & ULO1) and skills (GLO 3 & ULO2; GLO7 & ULO3) required in the study and practice of business intelligence and database. By completing this task, you will develop your skills in researching, understanding, applying, evaluating, and presenting normalization approach to database design and business intelligence required of business intelligence professionals.

Context

In this group assignment, teams of 3 students will design **simulated phishing campaigns dashboard** database and produce a report to explain the database. Students are required to apply the database and normalization knowledge to analyse database requirements and associated business intelligence needs (see individual practical assignment requirement). Based on the database design, students will create/provide data to showcase the database and submit a report. See examples of simulated phishing campaigns dashboard: https://support.phishingtackle.com/hc/en-gb/articles/360029323431-The-Phishing-Tackle-Dashboard

Specific Requirements

1. Your task is to analyse the simulated phishing campaigns dashboard database requirement (e.g., opened emails, clicked emails, opened email attachment, reported using phish alert, phishing success rate, campaign results by difficulty, etc.) and design a database that considers normalization technique. You must explain each of your normal form tables and provide: 1NF, 2NF, and 3NF tables to depict your work. The database can be re-used/modified for your individual practical assignment on cybersecurity dashboard development, as shown in the example below.

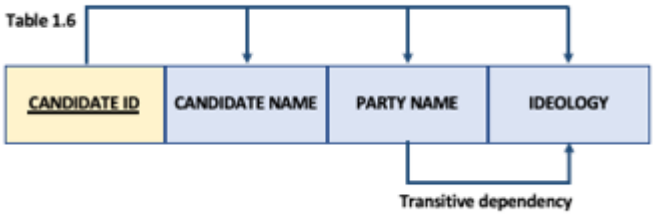


3. You may include the database tables as MS Word/Excel tables or as screenshot images. For 1NF, 3 tables are expected (with at least 5 rows for each field of the tables; hence, each group member can develop one table. E.g., 1 table for Phishing Campaign Manager, 1 table for User, 1 table for HR Manager). Note: 3 databases are required for this assignment.

4. In the written report, you must explain the table structure, define the data field/attribute and the data type (i.e., Integer, Floating-point number, Character, String, Boolean), and provide details of the business rule, primary key, etc (include any assumptions that you may have made). As a group assignment, there should be only one set of business rules for ***all*** tables. An example of a database table is provided below.

Campaign ID	Campaign name	Start date	End date	Target group	Email sent	Email responded	Status
S123	Executive Trap	1Jan2024	31Jan2024	Finance Dept	1099	57	9999

5. A dependency diagram must be included to illustrate the structure of your databases (i.e., the relation in terms of its attributes/columns and the dependencies between them). An example of a dependency diagram is provided below.



6. The entire assignment should be discussed and presented as **one coherent report.** The written report should include: 1) objectives of your database design, 2) benefits of your database design, 3) tables, data fields and commentary, etc. Feel free to make reasonable assumptions. You may create your own artificial datasets. **Real-world dataset is not compulsory.** Note: Refer to the assignment marking rubric, especially the HD column and the assignment outline example.

7. The contribution of each team member must be clearly stated in the Table of Contents (e.g., Introduction - done by Alex Smith). It might be helpful to have a look at Deakin generic guidelines on group work at https://www.deakin.edu.au/students/studying/study-support/academic-skills/group-work

8. **The group contribution form must be signed by all group members and be attached as an appendix to the group report.**

9. Some useful links:
   - https://www.openml.org/search?type=data&sort=runs&id=4534&status=active
   - https://community.mimecast.com/s/article/awareness-training-phishing-campaign-analytics
   - https://github.com/randomaccess3/Awesome-BEC
   - https://www.kaggle.com/datasets/shashwatwork/phishing-dataset-for-machine-learning
   - https://www.kaggle.com/datasets/shashwatwork/web-page-phishing-detection-dataset
   - https://data.world/datasets/hack
   - https://www.cybsafe.com/solutions/phishing-usb-attack-simulations/
   - https://phished.io/
   - https://www.phishingbox.com/
   - https://www.phriendlyphishing.com/

Report guidelines

1. The assignment report should contain a table of contents, a series of logically organised sections and a list of references. It might be helpful to look at Deakin report writing instructions at https://www.deakin.edu.au/students/studying/study-support/academic-skills/report-writing
2. Apply only APA referencing format, see: https://www.deakin.edu.au/students/studying/study-support/referencing/apa
3. You may include figures, diagrams, tables and charts, etc.
4. The length of the assignment **excludes** table of content, database tables, and reference list. The maximum word limit is 2999 words. Note: Although at least 5 rows are expected, more rows can be added to better depict your table.
5. Reports should be written in Microsoft Word and submitted as Word files (PDF files will not be marked).
6. Assignments are to be submitted online to the CloudDeakin dropbox (see submission details below). **Save your Word file as group_number.docx.**
7. Format: Times New Roman, font size 12 & single line spacing.

Group Restrictions

- Groups of 03 (THREE) members

Finding Group Members

Students should use the assessment discussion forums or discuss directly with their classmates to find group members to work with. Groups should be formed by the end of week 2, or the system will automatically/randomly assign students to a group of 3 members in week 3.

Learning Outcomes

This task allows you to demonstrate your achievement towards the Unit Learning Outcomes (ULOs), which have been aligned to the Deakin Graduate Learning Outcomes (GLOs). Deakin GLOs describe the knowledge and capabilities graduates acquire and can demonstrate on completion of their course. This assessment task is an important tool in determining your achievement of the ULOs. If you do not demonstrate achievement of the ULOs you will not be successful in this unit. You are advised to familiarise yourself with these ULOs and GLOs as they will inform you on what you are expected to demonstrate for successful completion of this unit. The learning outcomes that are aligned to this assessment task are:

Unit Learning Outcome (ULO)	Graduate Learning Outcome (GLO)
ULO1: Explain and apply the business intelligence (BI) lifecycle concept, multidimensionality concept and database concept ULO2: Appraise and apply data warehousing architecture, technologies and development methodologies and database for business intelligence. ULO3: Collaborate constructively in a team to use BI and database technologies for implementation of innovative BI solutions and better dissemination of information.	GLO1: Discipline-specific knowledge and capabilities - students are required to demonstrate an understanding of the business intelligence context and explain the BI and database technologies and associated implementation issues. GLO3: Digital Literacy - students are required to apply BI and database technologies to find, use and disseminate actionable information. GLO7: Teamwork - students are expected to collaborate constructively in a team to appraise business intelligence and database requirements and develop BI solutions.

Submission

You must submit your assignment in the Assignment Dropbox in the unit CloudDeakin site on or before the due date. When uploading your assignment, name your document using the following syntax: **<your group number_[unitcode].doc (or '.docx')**. For example, 'Group17_MIS781.doc'.

The group must submit one document into a group assignment drop box with all student names and IDs on the front page of the submission.

Submitting a hard copy of this assignment is not required. You must keep a backup copy of every assignment you submit until the marked assignment has been returned to you. In the unlikely event that one of your assignments is misplaced you will need to submit your backup copy.

Any work you submit may be checked by electronic or other means for the purposes of detecting collusion and/or plagiarism and for authenticating work.

When you submit an assignment through your CloudDeakin unit site, you will receive an email to your Deakin email address confirming that it has been submitted. You should check that you can see your assignment in the Submissions view of the Assignment Dropbox folder after upload and check for, and keep, the email receipt for the submission.

Marking and feedback

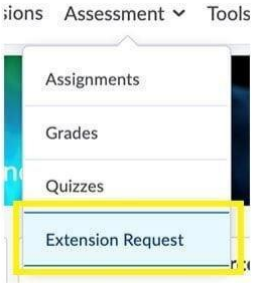
The marking rubric indicates the assessment criteria for this task. It is available in the CloudDeakin unit site in the Assessment folder, under Assessment Resources. Criteria act as a boundary around the task and help specify what assessors are looking for in your submission. The criteria are drawn from the ULOs and align with the GLOs. You should familiarise yourself with the assessment criteria before completing and submitting this task.

Students who submit their work by the due date will receive their marks and feedback on CloudDeakin **15 working days** after the submission date.

Extensions

Extensions can only be granted for exceptional and/or unavoidable circumstances outside of your control.

Requests for extensions must be made by 12 noon on the submission date using the online Extension Request form under the Assessment tab on the unit CloudDeakin site. All requests for extensions should be supported by appropriate evidence (e.g., a medical certificate in the case of ill health).



Applications for extensions after 12 noon on the submission date require University level special consideration and these applications must be must be submitted via StudentConnect in your DeakinSync site.

Late submission penalties

If you submit an assessment task after the due date without an approved extension or special consideration, 5% will be deducted from the available marks for each day after the due date up to seven days*. Work submitted more than seven days after the due date will not be marked and will receive 0% for the task. The Unit Chair may refuse to accept a late submission where it is unreasonable or impracticable to assess the task after the due date. *'Day' means calendar day for electronic submissions and working day for paper submissions.

An example of how the calculation of the late penalty based on an assignment being due on a Thursday at 8:00pm is as follows:

- 1 day late: submitted after Thursday 11:59pm and before Friday 11:59pm– 5% penalty.
- 2 days late: submitted after Friday 11:59pm and before Saturday 11:59pm – 10% penalty.
- 3 days late: submitted after Saturday 11:59pm and before Sunday 11:59pm – 15% penalty.
- 4 days late: submitted after Sunday 11:59pm and before Monday 11:59pm – 20% penalty.
- 5 days late: submitted after Monday 11:59pm and before Tuesday 11:59pm – 25% penalty.
- 6 days late: submitted after Tuesday 11:59pm and before Wednesday 11:59pm – 30% penalty.
- 7 days late: submitted after Wednesday 11:59pm and before Thursday 11:59pm – 35% penalty.

The Dropbox closes the Thursday after 11:59pm AEST/AEDT time.

Support

The Division of Student Life provides a range of **Study Support** resources and services, available throughout the academic year, including **Writing Mentor** and **Maths Mentor** online drop ins and the SmartThinking 24 hour writing feedback service at **this link.** If you would prefer some more in depth and tailored support, **make an appointment online with a Language and Learning Adviser**.

Referencing and Academic Integrity

Deakin takes academic integrity very seriously. It is important that you (and if a group task, your group) complete your own work in every assessment task Any material used in this assignment that is not your original work must be acknowledged as such and appropriately referenced. You can find information about referencing (and avoiding breaching academic integrity) and other study support resources at the following website: http://www.deakin.edu.au/students/study-support

Your rights and responsibilities as a student

As a student you have both rights and responsibilities. Please refer to the document ***Your rights and responsibilities as a student*** in the Unit Guide & Information section in the Content area in the CloudDeakin unit site.