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|  | | **ASSIGNMENT COVER PAGE** | | | C:\Users\hoching.tay\Desktop\Lincoln_UK_06092017-01.png |
| **Programme** | | | **Course Code and Title** | | |
| Bachelor of Computer Science (Hons) | | | CDB3033/N (Database Programming) | | |
| **Student’s name / student’s id** | | | **Lecturer’s name** | | |
|  | | | Lai Kim Min | | |
| **Date issued** | **Submission Deadline** | | | **Indicative Weighting** | |
| Week 4 -05/02/2024 | Week 7 - 26/02/2024 | | | 30% | |
| **Assignment [1]** | Oracle SQL Queries & Stored Procedures | | | | |
| This assessment assesses the following course learning outcomes | | | | | |
| **# as in Course Guide** | **UOWM KDU Penang University College Learning Outcome** | | | | |
| **CLO1** | Develop scripting for prototyping database applications with predefined functions. (C5, PLO3) | | | | |
| **CLO2** | Apply database integrity in a concurrent environment (C3, PLO3) | | | | |
| **CLO3** |  | | | | |
| **CLO4** |  | | | | |
| **# as in Course Guide** | **University of Lincoln Learning Outcome** | | | | |
| **CLO1** | Use appropriate tools and techniques to design a database | | | | |
| **CLO2** | Appraise the structure of a database design using standard evaluation mechanisms | | | | |
| **CLO3** |  | | | | |
| **CLO4** |  | | | | |
| **Student’s declaration** | | | | | |
| I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.  Student’s signature: Submission Date: | | | | | |

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| **Dates and Mechanisms for Assessment Submission and Feedback** | |
| **Mechanism for handout to students** | Open Learning |
| **Mechanism for submission of work by student** | *Softcopy online submission via Open Learning* |
| **Date by which work, feedback and marks will be returned to students** | 4th Mar 2024 |
| **Mechanism for return of assignment work, feedback and marks to students** | Feedback will be provided by a marking template. This will be available to students via Open Learning. The discussions at the walkthroughs will also provide informal feedback |

# COURSEWORK SUBMISSION GENERAL INFORMATION

# Academic Integrity Statement

You must adhere to the university college regulations on academic conduct. Formal inquiry proceedings will be instigated if there is any suspicion of plagiarism or any other form of misconduct in your work. Students must **NOT** collude with other groups of students or plagiarize their work.

# Nature of the submission required

A softcopy of your assignment in **PDF version** should be submitted to lecturer, no later than the date and time stipulated on the cover sheet. In addition, an electronic copy of your work must be submitted to Turnitin. The first page of your report, immediately after the cover page, must be a page from Turnitin clearly showing your name and your Originality Score (Please refer to [submission arrangement](#_Submission_arrangement)).

Diagrams may be used where they are helpful to support your arguments or description. If they are not your own work, the source must be referenced. Please help us to handle and mark your work efficiently.

Please take note for group submission, only **one submission per group**. This will contain both the group and individual elements. The individual element must be clearly labelled to indicate which group member completed the task.

# Documentation guidelines

Student is required to submit a **SOFTCOPY** of the report and ensure that it use the following formatted styles: 1) Font type: **ARIAL**, 2) Font size: **11** **pt**., 3) Line spacing: **Single spacing** and 4) Page layouts: **Justify**. Please make sure you have proper format alignment for all paragraphs, following standard writing style and use **HARVARD CITATION STYLE** for citation. Please include a **HEADER** with the following information: **Student ID, Student name, Course code and Assignment type**. Please also include a proper cover page for your submission which contains information about the students, assignment, course, and department with KDU and University of Lincoln (UoL) logos on top. Also include page number and list of references, which is shown in the last page.

# Penalties for Late Submission

For late submission of this Assignment, a penalty of a reduction by 10% of the maximum mark may be applicable for each Calendar Day or part thereof that the submission is late. An Assignment submitted more than **TEN** Calendar Days after the deadline will have a mark of zero recorded for this Assignment.

# Submission arrangement

1. Cover page
2. Turnitin similarity report
3. Table of Content
4. Main Report
5. Reference List or Bibliography List (whichever applicable)
6. Marking Rubric (in landscape orientation)

# Assignment instructions/Background

In this assignment, you are required to create the SQL queries in the interactive environment and apply PL/SQL (Oracle’s procedure extension to SQL) to write a stored procedure to process data. Populate your database by executing the files *create\_grades.sql* and *insert\_grades.sql* provided in the assignment.

**Task 1**

Produce two query script files for the following queries:

1. Display subject no, subject title, term, component name, maxpoints and weight based on the term and minimum weight for the particular subject.

The subject title should be displayed in upper case. The first letter of the component should be displayed in upper case. Expand the term with a full word. For example, f96 should be displayed as Fall-96.

All variables to be input by the user must be through **substitution** variables.



1. Create a view that displays the term, lineno, student IDs, last names, first names, and each student’s course average rounded off to the nearest integer. The course average is the sum of the weighted averages of the individual component scores. Use a script file to query the results from the view based on the term and lineno.

All variables to be input by the user must be through **parameters** to the script file.

**Task 2**

Write a stored procedure called *add\_course* with appropriate input parameters. Executing this procedure will insert a new record to the courses relation. You are required to prompt the users to enter all the course details with appropriate messages. You are also required to add the following requirements in this procedure:

* A business rule that the term must be started with ‘f’ (fall), ‘sp’ (spring), or ‘s’ (summer) and followed by 2 digits for year indication.
* A business rule that the grade A value must be bigger than the grade B value (minimum gap 10 points) and this applies to the other grades subsequently. The grade values must be in the range of 0-100.
* An exception handler that catches any error and displays the error code and error message.

Test the procedure and provide appropriate screenshots in your assignment (you may spool the test results and used it in your assignment.

Submission Instructions:

* A softcopy report in PDF format with the following details:
  + Program listing (source code) for both query files in Task 1 and stored procedure in Task 2.
  + Appropriate screenshots with the appropriate test cases.



* + Your report must include a listing of all PL/SQL statements processed. To achieve that put the following SQL\*Plus commands:

SPOOL file-name

SET ECHO ON

SET FEEDBACK ON

SET LINESIZE 100

SET PAGESIZE 200

SET SERVEROUTPUT ON

at the beginning of SQL script and

SPOOL OFF

at the end of SQL script.

* Upload the following items through MS Team:
  + All the query files and source code for Task1 & Task2.
  + Report in softcopy format
  + Turnitin report in softcopy format.

## Marking Scheme

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| --- | --- |
| Task 1a | 20% |
| Task 1b | 20% |
| Task 2 | 50% |
| Screen shots & test cases | 10% |

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| **CDB3033N DATABSE PROGRAMMING**  **MARKING RUBRIC**  **ASSIGNMENT [1]**  **SCRIPTING & STORED PROCEDURE** | | | | | | | | | |
| **Section (1)-12%** | | | | | | | | | |
| **LEARNING OUTCOME** | **MARKING CRITERIA** | **SCALE** | | | | | | | |
|  | **Fail**  **(0-49)** | **3rd Class**  **(50-59)** | **2nd Lower Class**  **(60-69)** | **2nd Upper Class**  **(70-79)** | **1st Class**  **(80-100)** | **YOUR MARKS/COMMENTS** | | |
| **100%** | **Weightage** | **Actual Marks** |
| CLO1 | **Script (a)**  **(20%)** | The script implemented with major flaws | The script implemented with some flaws | The script implemented with minor flaws | Good implementation in the script but not in exceptional way | The script implemented with excellent result and fulfil all the assignment requirements |  | 0.2 |  |
| **Script (b)**  **(20%)** | The script implemented with major flaws | The script implemented with some flaws | The script implemented with minor flaws | Good implementation in the script but not in exceptional way | The script implemented with excellent result and fulfil all the assignment requirements |  | 0.2 |  |
| **Total (40%)** | | | | | | |  | | |

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| **CDB3033N DATABSE PROGRAMMING**  **MARKING RUBRIC**  **ASSIGNMENT [1]**  **SCRIPTING & STORED PROCEDURE** | | | | | | | | | |
| **Section (2)-18%** | | | | | | | | | |
| **LEARNING OUTCOME** | **MARKING CRITERIA** | **SCALE** | | | | | | | |
|  | **Fail**  **(0-49)** | **3rd Class**  **(50-59)** | **2nd Lower Class**  **(60-69)** | **2nd Upper Class**  **(70-79)** | **1st Class**  **(80-100)** | **YOUR MARKS/COMMENTS** | | |
| **100%** | **Weightage** | **Actual Marks** |
| CLO2 | **Stored Procedure**  **(50%)** | The procedure implemented with major flaws | The procedure implemented with some flaws | The procedure implemented with minor flaws | Good implementation in the procedure but not in exceptional way | The procedure implemented with excellent result and fulfil all the assignment requirements |  | 0.5 |  |
| **Screen shots & Test Cases**  **(10%)** | Minor or no screen shots and test cases provided. | Some screen shots and test cases provided but with some flaws | Appropriate screen shots and test cases provided but with some flaws | Good screen shots and test cases provided but with minor flaws | Excellent screen shots and test cases provided with clear explanation |  | 0.1 |  |
| **Total (60%)** | | | | | | |  | | |
|  | | | | | | |  | | |
| **Overall Score (100%)** | | | | | | |  | | |