

CT6013 Assignment 001 2022-23

10. The requirements for assessment 1:

This assignment is an individual **project** and **report**.

Demonstrate your mastery of NoSQL database and relational database. Implement two separate (but exactly same features) **Library Database** applications – one using MongoDB (NoSQL database) and the other using Oracle (relational database). Both applications should have the same Graphical User Interfaces (GUIs) as outlined below:

- a) An input form for students to borrow/return books
- b) An input form for students to pay fine
- c) A report that displays book loan history of a student in a specific month
- d) A report that displays total fine paid by a student in a specific month

Your written report must consider the following:

- a) Critically evaluate NoSQL and relational database modelling by showing examples from your implementation
- b) Explanation and critical analysis of 3-Tier architecture by showing examples from your implementation
- c) You should include the following in the appendix of your report:
 - Java source code
 - Database build script for Oracle

Note that the appendix does not count towards your report word count.

You should carefully consider the following when writing your report:

- Style – suitable to be quickly read and comprehended.
- Content – relevant, clearly explained, logically organised.
- Authority – discussed concepts and ideas will need evidence in support.
- Practical understanding – your own practical examples, advice and demonstrations should be included.
- Technical understanding – understanding of the discussed system and consideration of comparison products.
- Business insight – understanding of the implications of aspects discussed for business operations and processes.

11. Special instructions

You need to submit two files – one is your report (a Microsoft Word document file) and other is a zip file containing all implemented source code files (java code and oracle database build script).

Submit your project source files (just one compressed zip file). The compressed zip file should be named according to the convention

CT6013 2021-22 001 StudentNumber SOURCECODE

e.g. CT6013 2021-22 001 1608131 SOURCECODE

Submit report (just one Word document) named according to the convention

CT6013 2021-22 001 StudentNumber REPORT

e.g. CT6013 2021-22 001 1608131 REPORT

12. Assessment 1 criteria

You need to achieve at least 40% to pass this assessment. Below a guide to the level of practical content and report required for the assignment.

| Grade | Content |
|----------------|--|
| To achieve <30 | Some requirements met, but very limited and not recoverable. Copyright violation. |
| To achieve <40 | Deliverables partially complete, e.g. incorrect database models or failure to submit report. |
| To achieve 40+ | Project <ul style="list-style-type: none">Partially correct database models (e.g. Oracle Database tables were created but the foreign keys were incorrect)Limited documentation in source code Report <ul style="list-style-type: none">Explanation of data models |
| To achieve 50+ | Project <ul style="list-style-type: none">At least one correct data model3-tier architecture implementation of both reports and both forms using at least one database (either MongoDB or Oracle)Good documentation in source code Report <ul style="list-style-type: none">Explanation of data models by showing examples from implementation |

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| To achieve 60+ | <div>Project</div> <ul style="list-style-type: none">· Correct implementation of both data models· 3-tier architecture implementation of both reports and both forms using both database (MongoDB and Oracle)· Very good documentation in source code <div>Report</div> <ul style="list-style-type: none">· Explanation of data models by showing examples from implementation· Explanation of 3-tier architecture by showing examples from implementation |
| To achieve 70+ | <div>Project</div> <ul style="list-style-type: none">· Correct implementation of both data models· 3-tier architecture implementation of both reports and both forms using both database (MongoDB and Oracle)· Excellent documentation in source code <div>Report</div> <ul style="list-style-type: none">· Critical evaluation of data models by showing examples from implementation· Explanation and critical analysis of 3-tier architecture by showing examples from implementation |

The **maximum** size for the report is 2400 words.

Assesses learning outcomes (1), (3) and (4)

Note that the overall grade will be determined by the application of the School of Business & Technology Assessment Criteria Grid.

Submission status

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|--|------------------------------------|
| Submission status | No attempt |
| Standard deadline If an Exam in University assessment weeks, see MyGlos for date and time | Monday, 16 January 2023, 3:00 PM |
| Planned feedback return date | Tuesday, 14 February 2023, 9:00 AM |

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| Time remaining | 12 days 21 hours |
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| Last modified | - |
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Add submission

You have not made a submission yet.

◀ Course resource list

Jump to...

CT6013 Assignment 002
2022-23 ▶