

Faculty of Arts, Science and Technology
Department of Computing
MSc Computing

Level: 7

Module: CONL705 Database Systems

Assignment: 2

Issue Date:

Review Date:

Submission Date

Estimated Completion time: 48 Hours

Lecturer: Bindu Jose

Verified by:

To be completed by student:

I certify that, other than where collaboration has been explicitly permitted, this work is the result of my individual effort and that all sources for materials have been acknowledged. I also confirm that I have read and understood the codes of practice on plagiarism contained within the Glyndwr Academic Regulations and that, by signing this printed form or typing my name on an electronically submitted version, I am agreeing to be dealt with accordingly in any case of suspected unfair practice. I also certify that my attendance for the module has been at least 70%

Name:

Student Number:.....

Date Submitted:

Student Signature:

Are extenuating circumstances being claimed? YES / NO

If YES, give reference number:

To be completed by lecturer
Comments:

Grade / Mark

(Indicative: may change when moderated)

Assignment 2 (Overall Weighting – 30%)

Help Desk Scenario

Assignment Description

The assignment is based on help desk scenario. Continuing from the work you have carried out as a Database Consultant for Assignment 1 you have now been promoted to a **DATABASE ADMINISTRATOR**. You are based at their head office and have been asked to manage and administer their centralised database which stores the details of the Helpdesk department. As part of your job you have to write reports discussing the following issues and identifying the best practice/strategy.

Database Security

The Company employs a number of staff who have different job roles and permissions. Each area has a Manager who requires information on performance. An Office Administrator looks after this performance information as well as the staff details and general information regarding the different types of staff. Helpdesk operators specialise in helping Callers and are the first line of contact. They take details of the Callers and problem. When Callers have queries it is answered by the Helpdesk operator who try to solve the problem however if it is complex then a Specialist will be allocated to investigate and fix the problem. IT Support staff are responsible for keeping an up to date inventory of all the software and hardware. Callers are able to inspect the progress of their problem using the problem number given to them by the helpdesk staff.

Backup and Security Strategy:

Task:

As a database Administrator you are responsible for the security, availability and integrity of the data. But different kinds of threats and unavoidable failure can cause unauthorized access and corrupt of data.

Write a report, discussing the types of security threats and failures that might occur within the Oracle database environment and evaluating various security measures, backup and recovery strategies that could be implemented to ensure the data security, availability and integrity in the given company.

Special considerations should be given to user and their access right, and should consider various recovery strategies like differential files, shadow paging, mirroring, fallback areas etc.

Critically recommend a security and backup strategy for the given scenario. The selection should be fully justified and should explain how the proposed strategy would ensure data security and data recovery following a failure. Use relevant examples and references.

(1000 words +/-10%)

Guidance

Students will get assistance to complete the tasks through the tutorial sessions.

Submission

The assignment should be word-processed. This specification document should be filed at the front of the assignment, with the front sheet (with your Name, Student Number, Date and Signature) visible at the front. All Tasks must be completed and submitted as a single file via Moodle by **10th May 2019**.

The Glyndwr policy on assignment submission will be rigidly adhered to (see your Student Handbook).

Learning Outcomes

1. Appraise the key issues in a database environment and the methods used to deal with these problems.
2. Critically evaluate database recovery mechanisms and discuss how they could be used to recover a database from various types of disasters.

Key skills for employability

1. Written, oral and media communication skills
2. Leadership, team working and networking skills
3. Opportunity, creativity and problem solving skills
4. Information technology skills and digital literacy
5. Information management skills
6. Research skills
7. Intercultural and sustainability skills
8. Career management skills
9. Learning to learn (managing personal and professional development, self-management)
10. Numeracy

Basis for assessment

Task 1 weighted at 60% and Task 2 weighted at 40%

- A** A mark in this range will be awarded to any student who demonstrates an excellent understanding of the problem and delivers a complete and good solution to all tasks.

The student's arguments will be supported by relevant examples and be correctly referenced.

- B+** A mark in this range will be awarded to any student who demonstrates a good understanding of the problem and delivers a good solution to all tasks. The majority of the student's arguments will be supported by relevant examples and be correctly referenced.
- B** A mark in this range will be awarded to any student who demonstrates a reasonable understanding of the problem and delivers a satisfactory solution to all tasks. Most of the student's arguments will be supported by relevant examples and be correctly referenced.
- C** A mark in this range will be awarded to any student who demonstrates some understanding of the problem and delivers a satisfactory solution to all tasks. Work of a reasonable standard, but lacking examples and correct referencing will fall into this category.
- Refer** A Refer will be given to work that is unsatisfactory or contains serious errors/limitations.