

LOs	LO2		LO3	
Sub				
Resub	P	Not Achieved	P	Not Achieved
Student Name			Code	
Unit No. & Title	ICT 225- Database Programming			
Qualification	Higher National Diploma of Technology in Information and Communications Technology. (Y2)			
Assignment No.	2		Assessor Name	Dr. Amany AbdElSamea
Evidence	Document		IV Name	Dr. Ghada Maher
Hand out date	1/05/2024		Hand in date	7/05/2024

Targeted LO	Targeted criteria	Criteria achieved	Assessment comments
LO2	Pass		
	Merit		
	Distinction		
LO3	Pass		
	Merit		
	Distinction		

Assessor Signature: *Amany AbdElSamea*

Criteria reference	Targeted criteria	To achieve the criteria the evidence must show that the student is able to:	Evidence	Page numbers
LO2 Recognize advanced Structured Query Language (SQL) querying	Pass	P4 Explain SQL procedures, functions, triggers P5 Describe the creation and management of Constraints, Views, Indexes, Joins P6: Write a MySQL query on procedures, functions, triggers and Joins	Document and Interview sheet	
	Merit	M3 Create and manage advanced Queries using joins, triggers and procedures, views and indexes, constraints	Document and Interview sheet	
	Distinction	D1 Create core SQL commands to query, define, select, manipulate, control access, aggregate data and data tables and identify query errors.	Document and Interview sheet	
LO3 Understand NoSQL Databases	Pass	P6 Explain NoSQL Database, its characteristics, types P7 Describe CAP theorem	Document and Interview sheet	
	Merit	M4 Compare between SQL and NoSQL	Document and Interview sheet	
	Distinction	D3 Critically evaluate NoSQL database types	Document and Interview sheet	

"I certify that this assignment is my own work, written in my own words. Any other person's work included in my assignment is referenced / acknowledged".

IV Signature: <i>Ghada Maher</i>	Learner's signature:	Date:
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Scenario

You are working as a database administrator at Oracle Egypt company. As part of your job is the creation, management, maintenance of company databases. You should be able to create, organize systems to store different data types. You also must have strong analytical skills to monitor performance and identify problems with a system. You have been asked to be a member of one of database projects and you are expected to perform the following tasks:

Task No.01

From the above scenario

1- Consider the following tables, the course table and the instructor table. State the name of the join for the following output and explain it

Course_id	Course
111	Science
222	Finance
333	History
444	Art
555	Music
777	Physics

Instructor_id	Name	Place	Course_id
1	Lisa	California	111
2	Roy	Bangalore	222
3	Mathew	Mumbai	333
4	Lorna	Boston	444
5	Marcelo	Texas	555
6	Pinto	Delhi	666

output

Course_id	Course	Instructor_id	Name	Place	Course_id
111	Science	1	Lisa	California	111
222	Finance	2	Roy	Bangalore	222
333	History	3	Mathew	Mumbai	333
444	Art	4	Lorna	Boston	444
555	Music	5	Marcelo	Texas	555
777	Physics	NULL	NULL	NULL	NULL
NULL	NULL	6	Pinto	Delhi	666

2- Create and manage advanced query to produce the above output.

3- Write MySQL query to perform Left join, Right join on the above tables

4- The following query is producing an error. Identify the error and also create the correct core SQL query:

- GRANT TO peter@localhost ALL PRIVILEGES on *.*;
- CREATE VIEW AS SELECT name, age FROM CUSTOMERS;
- CREATE USER IDENTIFIED BY 'password' AHMED;

5- Describe the SQL commands which are used to:

- Create a virtual table based on the result-set of an SQL statement.
- Enables you to improve the faster retrieval of records on a database table. It creates an entry for each value of the indexed columns
- A special type of stored procedure that is invoked automatically in response to an event.
- A collection of pre-compiled SQL statements stored inside the database. It always contains a name, parameter lists, and SQL statements
- It is used to combine rows from two or more tables, based on a related column between them
- It is used to specify the rule that allows or restricts what values/data will be stored in the table.

Task2:

6- Explain NoSQL database and its characteristics

7- Describe CAP theorem.

8- Compare between SQL database and NoSQL database.

9- Critically evaluate NoSQL database types

With my Best wishes

Resubmission Feedback:

***Please note resubmission feedback is focussed only on the resubmitted work**

Assessor Signature: *Amany AbdElSamea*

Date: / /2024

Internal Verifier's Comments:

IV Signature: *Ghada Maher*

Date: / /2024