CIS 276 – SQL Programming

Course Description

This course covers the concept, design and components of querying databases using the Structured Query Language (SQL). Involves the creation of tables, constraints, use of DML, use of DDL, and defining transactions.

Instructional Materials

Greenberg, N. *Oracle Database 10g: Introduction to SQL fundamentals I and II.* California: Oracle University

Course Learning Outcomes

1. Write PL/SQL code to demonstrate competence of the basic concepts in the Oracle architecture and its implementation with SQL.
2. Load the Oracle Server.
3. Create relational databases and demonstrate this by creating Tablespaces, Tables and other objects.
4. Perform basic administration of the Oracle Server.
5. Code Basic SQL statements and demonstrate this knowledge by coding applications.
6. Code SQL statements that restrict and sort data and demonstrate this knowledge by coding applications.
7. Write SQL code to employ Oracle functions and demonstrate this knowledge by coding applications.
8. Write SQL code to employ Join Statements that display data from Multiple Tables and demonstrate this knowledge by coding applications.
9. Write SQL code to use of Sub-queries and demonstrate this knowledge by coding applications.
10. Write SQL code to produce Reports and demonstrate this knowledge by coding applications.
11. Create and manage Tables, Tablespaces, and Database objects and demonstrate this knowledge by coding applications.
12. Create Constraints, Sequences, Indexes, Views and Synonyms and demonstrate this knowledge by coding applications.
13. Create users and manage access to the Oracle Database and demonstrate this knowledge by coding applications.
14. Synthesize current information related to topics in this course using the APA format.