BAKER COLLEGE
STUDENT LEARNING OUTCOMES

CIS2210 Database Management and Design
3 Semester Credit Hours

Student Learning Outcomes and Enabling Objectives

1. Explore the basic structures of tables in electronic databases.
    a. List the most common structures for storing data in a database management system
    b. Describe alternatives to relational DBMSs and their unique security issues
    c. Examine the ways databases are accessed

2. Examine relational database principles, concepts and design
    a. Determine the basic relationships between tables in a relational database
    b. Explain normalization in the database design process
    c. Demonstrate the ability to use data manipulation skills

3. Construct queries using SQL in DBMS
    a. Demonstrate basic SQL proficiency for table creation, data insertion and data query
    b. Demonstrate the ability to design simple and complex queries with SQL

4. Explore the role of the Database administrator
    a. Configure a commodity DBMS for secure access
    b. Describe the role of a database, a DBMS, and a database server within a complex system supporting multiple applications
    c. Describe DBMS access controls and privilege levels and apply them to a simple database
    d. Identify common functions and related problems of a database management system
    e. Apply table relationships, referential integrity, indexing, and security to an existing DBMS

5. Create a database structure for a specific system/problem.
    a. Develop a DB structure for a specific system/problem.

b. Demonstrate the ability to work individually or with a team to design a database project

Big Ideas and Essential Questions

Big Ideas

- Database Administrator
- Relational Database
- Database Structure
- Table Structures
- SQL
- Queries

Essential Questions

1. Why would you use a relational database?
2. What is the role of the database administrator?
3. How do you create a database structure for a specific system and problems?
4. How do you use basic structures of tables in electronic databases?
5. Why use SQL as the language for databases?
6. How would you construct the queries for a database?

These SLOs are approved for experiential credit.

Effective: Spring 2023