

# Instructional Scenario

## Viewing Stored Objects in the Data Dictionary



Course/Duty Area: Database Design and Management/Creating Additional Database Objects

### Scenario:

Your university's IT department has tasked you with creating a database to manage information about various courses, instructors, and students. They also want you to ensure that all database objects are properly stored and can be easily retrieved from the data dictionary. The database should include tables for courses, instructors, students, and enrollments. Each table should have appropriate constraints and relationships.

### Big Question:

How can you create a database that allows easy retrieval of stored objects from the data dictionary?

### Focused Questions:

- What software should you use?
- How do you retrieve specific information about tables, columns, and constraints from the data dictionary?
- How many tables will the database need?
- Will you need to create a data model?
- How will you enter information into the database?
- Do your NOT NULL constraints work?
- Do your foreign key relationships work?
- Do your primary key constraints work?

### Student Project or Outcome:

- A script for creating each table
- A script for each table to insert information
- Any additional code used to complete the project, such as adding foreign keys
- Queries to retrieve information about tables, columns, and constraints from the data dictionary

### Teacher Resources:

- Oracle Database Documentation
- MySQL Documentation
- PostgreSQL Documentation
- W3Schools SQL Tutorial

*Scenario submitted by Christopher Truong, Broad Run High School, Loudoun County Public Schools*