


Lab 1: Structured Query Language (SQL)

Course Code: ICT 3011/BIT 2261

Course Name: Database Systems

Date: 14th June 2025

Instructions: Based

 **Lab Title:** *Building and Querying a University Database*

Objective: To develop SQL skills for creating, populating, and querying relational databases.

Tools: MySQL, PostgreSQL, SQLite, or any SQL IDE (e.g., DBeaver, phpMyAdmin)

Tasks:

1. Create Tables:

- STUDENT(s_id, name, age, department_id)
- COURSE(course_id, course_name, instructor_id)
- ENROLLMENT(enroll_id, s_id, course_id, semester)
- INSTRUCTOR(instructor_id, name, department_id)
- DEPARTMENT(department_id, department_name)

2. Insert Sample Data:

- Insert at least **5 records per table** with meaningful relationships.

3. Querying Practice:

- List all students and their department names.
- Show all courses taught by an instructor named “Dr. Nyamwana”.
- List students enrolled in more than one course.
- Find the average age of students per department.
- Update the name of a department.
- Delete an enrollment record for a withdrawn student.

Expected Output:

- Screenshots (on PDF report) and exported SQL scripts showing results of table creation, insertion, and queries.

Submission:

- SQL script file (.sql)

- PDF file with screenshots of output

Submission Guidelines:

- Submit as a typed document (PDF) via Google Classroom.
- Your gmail account should show your real names
- Include your **name, student ID, and course code** on the cover page.
- Deadline: 6th July 2025