DATABASE ESSENTIALS

Lecture 8

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- CREATE DATABASE college4;

or

- CREATE DATABASE IF NOT EXISTS college4;

SQL…

Show databases

- SHOW databases;

Switch to the 'college4' database

- USE college4;

SQL…

Create a table for students

```sql
CREATE TABLE students (
    student_id INT PRIMARY KEY,
    first_name VARCHAR(50),
    last_name VARCHAR(50),
    birth_date DATE,
    address VARCHAR(100)
);
```

Create a table for courses

```
CREATE TABLE courses (
    course_id INT PRIMARY KEY,
    course_name VARCHAR(50),
    department VARCHAR(50),
    credits INT
);
```

Create a table for enrollment

```
CREATE TABLE enrollment (
    enrollment_id INT PRIMARY KEY,
    student_id INT,
    course_id INT,
    enrollment_date DATE
);
```

SQL…

Add some sample data

INSERT INTO students VALUES (1, 'Juma', 'Kulwa', '1990-01-01', 'Kawe');

INSERT INTO students VALUES (2, 'Halima', 'Salehe', '1995-05-15', 'Temeke');

SQL…

Add some sample data

INSERT INTO courses VALUES (101, 'Introduction to Programming', 'Computer Science', 3);

INSERT INTO courses VALUES (102, 'Database Management', 'Computer Science', 4);

SQL…

Add some sample data

INSERT INTO enrollment VALUES (1, 1, 101, '2024-01-01');

INSERT INTO enrollment VALUES (2, 1, 102, '2024-01-15');

INSERT INTO enrollment VALUES (3, 2, 101, '2024-02-01');

SQL…

Select some data

Select all columns for all students

SELECT * FROM students;

Select specific columns

SELECT student_id, first_name, last_name FROM students;

Adding conditions to filter the results. Example, select a student with a specific student_id:

Select all columns for a specific student (e.g., student with id 1)

SELECT * FROM students WHERE student_id = 1;

SQL…

Quiz

Selecting from two or more tables

Update

Delete

"If you are working on something that you really care about, you don't have to be pushed. The vision pulls you."
— Steve Jobs