

Case Study 1: Online Course Registration System

Objective:

Allow students to register/unregister for courses and view course details.

Table Structure:

```
CREATE DATABASE course_db;
USE course_db;

CREATE TABLE courses (
    course_id INT PRIMARY KEY,
    course_name VARCHAR(100),
    faculty VARCHAR(100),
    credits INT
);
```

JDBC Operations:

- **INSERT:** Add new courses.
- **SELECT:** List available courses.
- **UPDATE:** Modify faculty or credit values.
- **DELETE:** Remove obsolete courses.

Case Study 2: Product Inventory System

Objective:

Track product stock in a retail store.

Table Structure:

```
CREATE DATABASE inventory_db;
USE inventory_db;

CREATE TABLE products (
    product_id INT PRIMARY KEY,
    product_name VARCHAR(100),
    quantity INT,
    price DECIMAL(10,2)
);
```

JDBC Operations:

- **INSERT:** Add new products to inventory.
- **SELECT:** View stock levels and prices.
- **UPDATE:** Update quantity after sale/purchase.
- **DELETE:** Remove discontinued products.