Task 3

Departments Table CREATE TABLE departments (department_id INTEGER PRIMARY KEY AUTOINCREMENT, department_name TEXT NOT NULL); **Students Table** CREATE TABLE students (student_id INTEGER PRIMARY KEY AUTOINCREMENT, name TEXT NOT NULL, email TEXT UNIQUE NOT NULL, dob DATE, department_id INTEGER, FOREIGN KEY (department_id) REFERENCES departments(department_id)); **Courses Table** CREATE TABLE courses (course_id INTEGER PRIMARY KEY AUTOINCREMENT, course_name TEXT NOT NULL, course_code TEXT UNIQUE NOT NULL, credits INTEGER, department_id INTEGER, FOREIGN KEY (department_id) REFERENCES departments(department_id)); **Enrollments Table CREATE TABLE enrollments (** enrollment_id INTEGER PRIMARY KEY AUTOINCREMENT, student_id INTEGER,

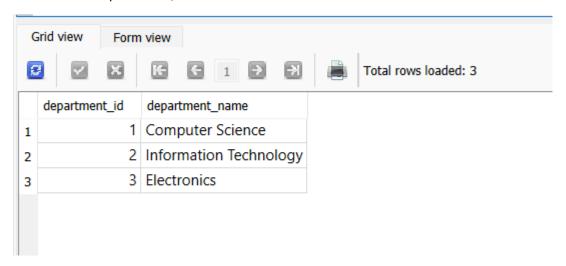
```
course_id INTEGER,
enrollment_date DATE,
grade TEXT,
FOREIGN KEY (student_id) REFERENCES students(student_id),
FOREIGN KEY (course_id) REFERENCES courses(course_id)
);
Insert into Departments
INSERT INTO departments (department_name) VALUES
('Computer Science'),
('Information Technology'),
('Electronics');
Insert into Students
INSERT INTO students (name, email, dob, department_id) VALUES
('Amit Patel', 'amit.patel@example.com', '2000-01-15', 1),
('Bhavna Shah', 'bhavna.shah@example.com', '2001-06-20', 2),
('Chetan Mehta', 'chetan.mehta@example.com', '1999-09-25', 1),
('Deepa Rana', 'deepa.rana@example.com', '2002-02-05', 3),
('Esha Desai', 'esha.desai@example.com', '2003-04-10', 2),
('Farhan Sheikh', 'farhan.sheikh@example.com', '2000-12-01', 1);
Insert into Courses
INSERT INTO courses (course_name, course_code, credits, department_id) VALUES
('Database Systems', 'CS101', 4, 1),
('Data Structures', 'CS102', 3, 1),
('Web Development', 'IT103', 3, 2),
('Cyber Security', 'EL104', 2, 3),
('AI & ML', 'CS105', 4, 1);
```

Insert into Enrollments

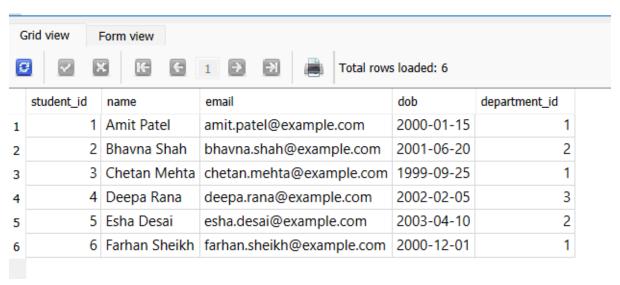
INSERT INTO enrollments (student_id, course_id, enrollment_date, grade) VALUES

- (1, 1, '2025-01-10', 'A'),
- (1, 2, '2025-01-11', 'B'),
- (2, 3, '2025-01-12', 'A'),
- (3, 1, '2025-01-13', 'B'),
- (4, 4, '2025-01-14', 'A'),
- (1, 5, '2025-01-15', 'C');

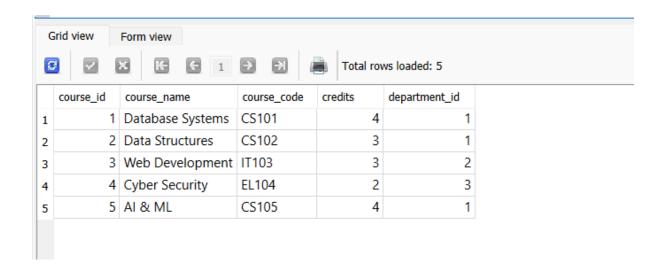
select * from departments;



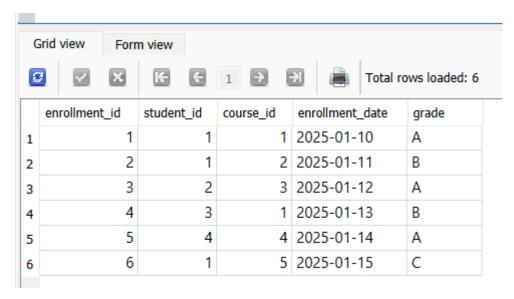
select * from students;



select * from courses;

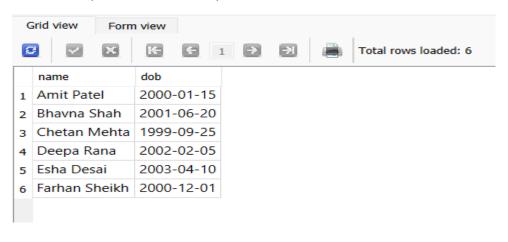


select * from enrollments;



Get student names and DOB only

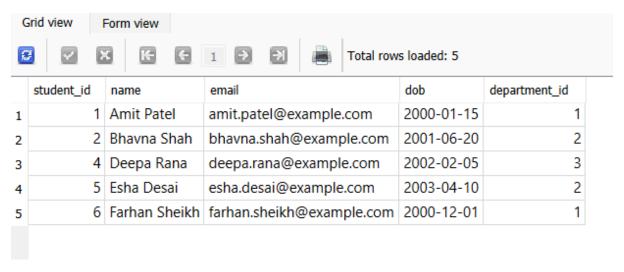
SELECT name, dob FROM students;



Find students born after 2000

SELECT * FROM students

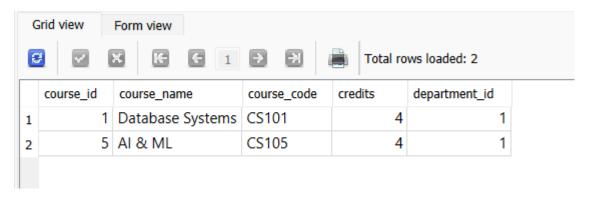
WHERE dob > '2000-01-01';



Find courses with more than 3 credits

SELECT * FROM courses

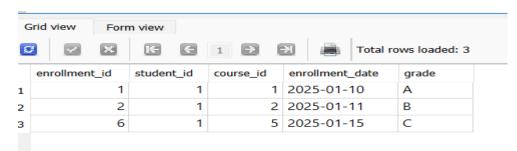
WHERE credits > 3;



List enrollments for student ID 1

SELECT * FROM enrollments

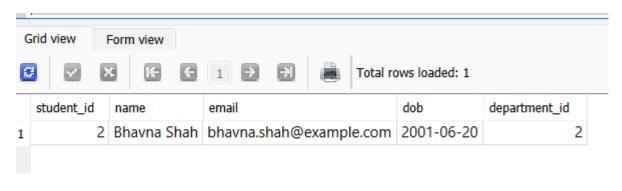
WHERE student id = 1;



Students with name containing 'b'

SELECT * FROM students

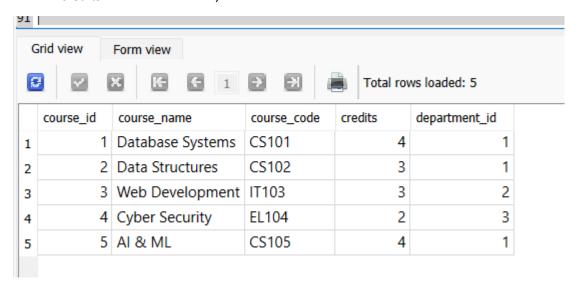
WHERE name LIKE '%b%';



Courses with credits between 2 and 4

SELECT * FROM courses

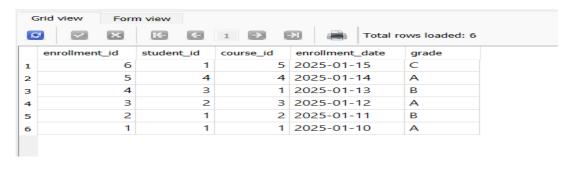
WHERE credits BETWEEN 2 AND 4;



All enrollments ordered by date (newest first)

SELECT * FROM enrollments

ORDER BY enrollment_date DESC;

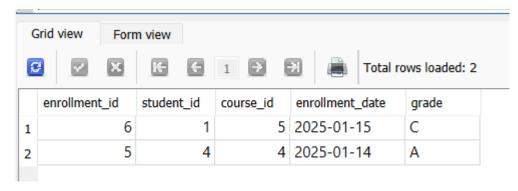


Top 2 most recent enrollments

SELECT * FROM enrollments

ORDER BY enrollment_date DESC

LIMIT 2;



Use alias to display custom column names

SELECT name AS student_name, email AS student_email

FROM students;

