

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;
```

Grid view		Form view	
			
		1	
		Total rows loaded: 3	
	department_id	department_name	
1	1	Computer Science	
2	2	Information Technology	
3	3	Electronics	

```
select * from students;
```

Grid view

Form view

1

Total rows loaded: 6

	student_id	name	email	dob	department_id
1	1	Amit Patel	amit.patel@example.com	2000-01-15	1
2	2	Bhavna Shah	bhavna.shah@example.com	2001-06-20	2
3	3	Chetan Mehta	chetan.mehta@example.com	1999-09-25	1
4	4	Deepa Rana	deepa.rana@example.com	2002-02-05	3
5	5	Esha Desai	esha.desai@example.com	2003-04-10	2
6	6	Farhan Sheikh	farhan.sheikh@example.com	2000-12-01	1

```
select * from courses;
```

Grid view Form view					
1 Total rows loaded: 5					
	course_id	course_name	course_code	credits	department_id
1	1	Database Systems	CS101	4	1
2	2	Data Structures	CS102	3	1
3	3	Web Development	IT103	3	2
4	4	Cyber Security	EL104	2	3
5	5	AI & ML	CS105	4	1

select * from enrollments;

Grid view Form view					
1 Total rows loaded: 6					
	enrollment_id	student_id	course_id	enrollment_date	grade
1	1	1	1	2025-01-10	A
2	2	1	2	2025-01-11	B
3	3	2	3	2025-01-12	A
4	4	3	1	2025-01-13	B
5	5	4	4	2025-01-14	A
6	6	1	5	2025-01-15	C

Get student names and DOB only






SELECT name, dob FROM students;

Grid view Form view		
1 Total rows loaded: 6		
	name	dob
1	Amit Patel	2000-01-15
2	Bhavna Shah	2001-06-20
3	Chetan Mehta	1999-09-25
4	Deepa Rana	2002-02-05
5	Esha Desai	2003-04-10
6	Farhan Sheikh	2000-12-01




Find students born after 2000

```
SELECT * FROM students
WHERE dob > '2000-01-01';
```

Grid viewForm view



1








Total rows loaded: 5

	student_id	name	email	dob	department_id
1	1	Amit Patel	amit.patel@example.com	2000-01-15	1
2	2	Bhavna Shah	bhavna.shah@example.com	2001-06-20	2
3	4	Deepa Rana	deepa.rana@example.com	2002-02-05	3
4	5	Esha Desai	esha.desai@example.com	2003-04-10	2
5	6	Farhan Sheikh	farhan.sheikh@example.com	2000-12-01	1




Find courses with more than 3 credits

```
SELECT * FROM courses
WHERE credits > 3;
```

Grid viewForm view



1








Total rows loaded: 2

	course_id	course_name	course_code	credits	department_id
1	1	Database Systems	CS101	4	1
2	5	AI & ML	CS105	4	1




List enrollments for student ID 1

```
SELECT * FROM enrollments
WHERE student_id = 1;
```

Grid viewForm view



1








Total rows loaded: 3

	enrollment_id	student_id	course_id	enrollment_date	grade
1	1	1	1	2025-01-10	A
2	2	1	2	2025-01-11	B
3	6	1	5	2025-01-15	C



Students with name containing 'b'


```
SELECT * FROM students
WHERE name LIKE '%b%';
```

Grid viewForm view



1








Total rows loaded: 1

	student_id	name	email	dob	department_id
1	2	Bhavna Shah	bhavna.shah@example.com	2001-06-20	2



Courses with credits between 2 and 4


```
SELECT * FROM courses
WHERE credits BETWEEN 2 AND 4;
```

Grid viewForm view



1








Total rows loaded: 5

	course_id	course_name	course_code	credits	department_id
1	1	Database Systems	CS101	4	1
2	2	Data Structures	CS102	3	1
3	3	Web Development	IT103	3	2
4	4	Cyber Security	EL104	2	3
5	5	AI & ML	CS105	4	1



All enrollments ordered by date (newest first)


```
SELECT * FROM enrollments
ORDER BY enrollment_date DESC;
```

Grid viewForm view



1



Total rows loaded: 6

	enrollment_id	student_id	course_id	enrollment_date	grade
1	6	1	5	2025-01-15	C
2	5	4	4	2025-01-14	A
3	4	3	1	2025-01-13	B
4	3	2	3	2025-01-12	A
5	2	1	2	2025-01-11	B
6	1	1	1	2025-01-10	A

Top 2 most recent enrollments






```
SELECT * FROM enrollments
```

ORDER BY enrollment_date DESC




LIMIT 2;

Grid view

Form view

1











Total rows loaded: 2

	enrollment_id	student_id	course_id	enrollment_date	grade
1	6	1	5	2025-01-15	C
2	5	4	4	2025-01-14	A

Use alias to display custom column names

```
SELECT name AS student_name, email AS student_email
```

FROM students;

Grid view		Form view	
			
			
		Total rows loaded: 6	

	student_name	student_email
1	Amit Patel	amit.patel@example.com
2	Bhavna Shah	bhavna.shah@example.com
3	Chetan Mehta	chetan.mehta@example.com
4	Deepa Rana	deepa.rana@example.com
5	Esha Desai	esha.desai@example.com
6	Farhan Sheikh	farhan.sheikh@example.com