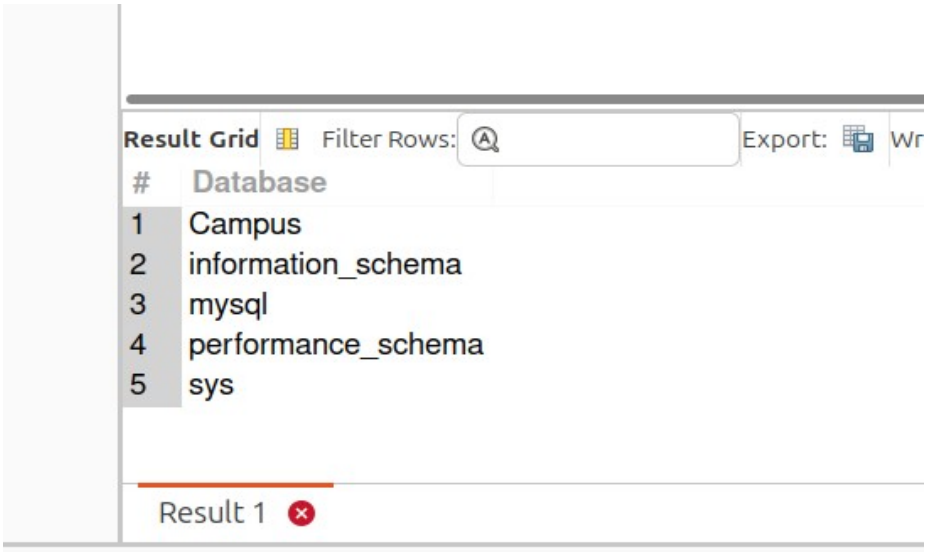
Create Database

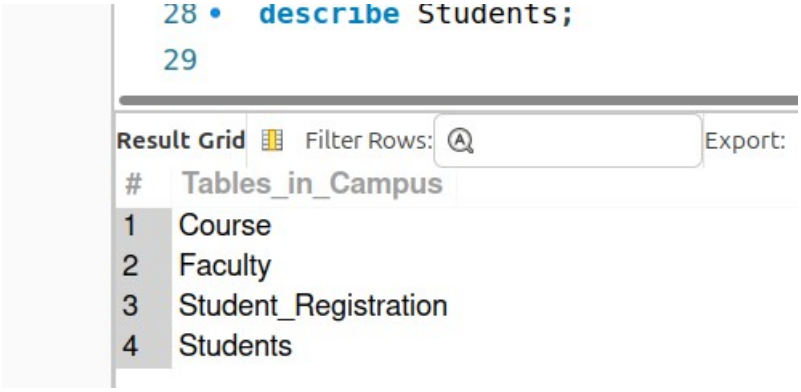
```
CREATE DATABASE IF NOT EXISTS Campus;
SHOW DATABASES;

USE Campus;
```



Create Students, Faculty & Course Tables

```
USE Campus;

CREATE TABLE IF NOT EXISTS Students (
    StudentID INT auto_increment primary key,
    FirstName varchar(50) not null,
    LastName varchar(50) not null,
    DateOfBirth DATE,
    Email varchar(100) unique
);

CREATE table IF NOT exists Faculty(
    FacultyID int auto_increment primary key,
    FirstName varchar(50) not null,
    LastName varchar(50) not null,
    Department varchar(100),
    email varchar(100) unique
);

create table if not exists Course(
    CourseID int auto_increment primary key,
    CourseName varchar(100) not null,
    Credits int check (Credits > 0),
```

```
    FacultyID int,
    foreign key (FacultyID) references Faculty(FacultyID)
);

Show tables;
describe Students;
```



Insert records into Students, Faculty & Course Tables

```
USE Campus;

SHOW Tables;

insert into Students(FirstName, LastName, DateOfBirth, Email) VALUES
('Aiden', 'Parker', '1990-02-14', 'aiden.parker@students.iiit.ac.in'),
('Bella', 'Martinez', '1988-07-23', 'bella.martinez@students.iiit.ac.in'),
('Caleb', 'Johnson', '1992-11-05', 'caleb.johnson@students.iiit.ac.in'),
('Diana', 'Thompson', '1995-03-18', 'diana.thompson@students.iiit.ac.in'),
('Ethan', 'Rivera', '1987-09-09', 'ethan.rivera@students.iiit.ac.in'),
('Fiona', 'Brooks', '1993-01-27', 'fiona.brooks@students.iiit.ac.in'),
('Gavin', 'Mitchell', '1991-12-12', 'gavin.mitchell@students.iiit.ac.in'),
('Hannah', 'Lee', '1994-08-30', 'hannah.lee@students.iiit.ac.in'),
('Isaac', 'Carter', '1989-05-16', 'isaac.carter@students.iiit.ac.in'),
('Jacob', 'Adams', '1996-04-02', 'jacob.adams@students.iiit.ac.in');

select * from Students;



insert into Faculty(FirstName, LastName, Department, Email) VALUES
('Dr. Andrew', 'Hughes', 'Computer Science', 'andrew.hughes@iiit.ac.in'),
('Prof. Barbara', 'Stewart', 'Mathematics', 'barbara.stewart@iiit.ac.in'),
('Dr. Charles', 'Wright', 'Physics', 'charles.wright@iiit.ac.in'),
('Prof. Diane', 'Morgan', 'Chemistry', 'diane.morgan@iiit.ac.in'),
('Dr. Edward', 'Foster', 'Biology', 'edward.foster@iiit.ac.in');
```

select * from Faculty;

insert into Course(CourseName, Credits, FacultyID) VALUES
('Data Structures', '4', '1'),
('Linear Algebra', '3', '2'),
('Quantum Physics', '4', '3'),
('Organic Chemistry', '3', '4'),
('Molecular Biology', '4', '5');

select * from Course;

```
16
17 • select * from Students;
```

Result Grid | Filter Rows: | Edit: | Export/Import:

#	StudentID	FirstName	LastName	DateOfBirth	Email
1	1	Aiden	Parker	1990-02-14	aiden.parker@students.iiit.a…
2	2	Bella	Martinez	1988-07-23	bella.martinez@students.iiit…
3	3	Caleb	Johnson	1992-11-05	caleb.johnson@students.iiit…
4	4	Diana	Thompson	1995-03-18	diana.thompson@students.i…
5	5	Ethan	Rivera	1987-09-09	ethan.rivera@students.iiit.a…
6	6	Fiona	Brooks	1993-01-27	fiona.brooks@students.iiit.a…
7	7	Gavin	Mitchell	1991-12-12	gavin.mitchell@students.iiit.…

Students 2

```
28 • select * from Faculty;
29
```

Result Grid | Filter Rows: | Edit: | Export/Import:

#	FacultyID	FirstName	LastName	Department	email
1	1	Dr. Andrew	Hughes	Computer Science	andrew.hughes@iiit.ac.in
2	2	Prof. Barbara	Stewart	Mathematics	barbara.stewart@iiit.ac.in
3	3	Dr. Charles	Wright	Physics	charles.wright@iiit.ac.in
4	4	Prof. Diane	Morgan	Chemistry	diane.morgan@iiit.ac.in
5	5	Dr. Edward	Foster	Biology	edward.foster@iiit.ac.in
*	NULL	NULL	NULL	NULL	NULL

Faculty 3

```
32 •  insert into Course(CourseName, Credits, FacultyID) VALUES
33    ('Data Structures', '4', '1'),
```

Result Grid | Filter Rows: | Edit: | Export/Import:

#	CourseID	CourseName	Credits	FacultyID
1	1	Data Structures	4	1
2	2	Linear Algebra	3	2
3	3	Quantum Physics	4	3
4	4	Organic Chemistry	3	4
5	5	Molecular Biology	4	5
*	NULL	NULL	NULL	NULL

Course 4

Create Student Registration Table

```
USE Campus;

CREATE table if not exists Student_Registration(
        RegistrationID int auto_increment primary key,
    StudentID int,
    CourseID int,
    RegistrationDate date default '2025-01-26',
    Status ENUM('Registered', 'Dropped', 'Completed') DEFAULT 'Registered',
    foreign key (StudentID) references Students(StudentID),
    foreign key (CourseID) references Course(CourseID)
);

show tables;
```

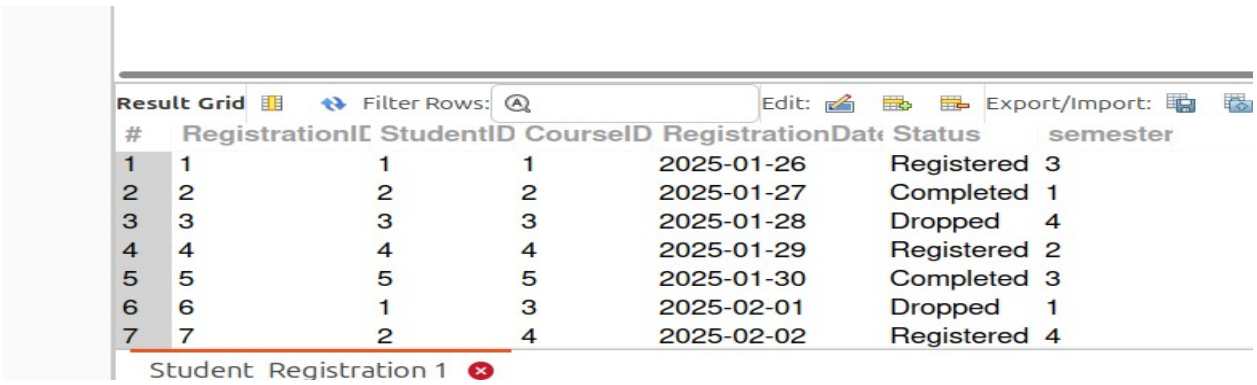
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	Tables_in_Campus
1	Course
2	Faculty
3	Student_Registration
4	Students

Result 2

Insert into Registration Table

```
USE Campus;

insert into Student_Registration (StudentID, CourseID, RegistrationDate, Status) VALUES
('1', '1', '2025-01-26', 'Registered'),
('2', '2', '2025-01-27', 'Completed'),
('3', '3', '2025-01-28', 'Dropped'),
('4', '4', '2025-01-29', 'Registered'),
('5', '5', '2025-01-30', 'Completed'),
('1', '3', '2025-02-01', 'Dropped'),
('2', '4', '2025-02-02', 'Registered'),
('3', '5', '2025-02-03', 'Completed'),
('4', '1', '2025-02-04', 'Registered'),
('5', '2', '2025-02-05', 'Dropped');

select * from Student_Registration


alter table Student_Registration add column semester varchar(10) after status;

select * from Student_Registration;

-- Entering semester no. of each student

UPDATE Student_Registration
set semester = case RegistrationID
    when 1 then 3
    when 2 then 1
    when 3 then 4
    when 4 then 2
    when 5 then 3
    when 6 then 1
    when 7 then 4
    when 8 then 2
    when 9 then 1
    when 10 then 3
END
where  RegistrationID between 1 and 10;

select * from Student_Registration;
```



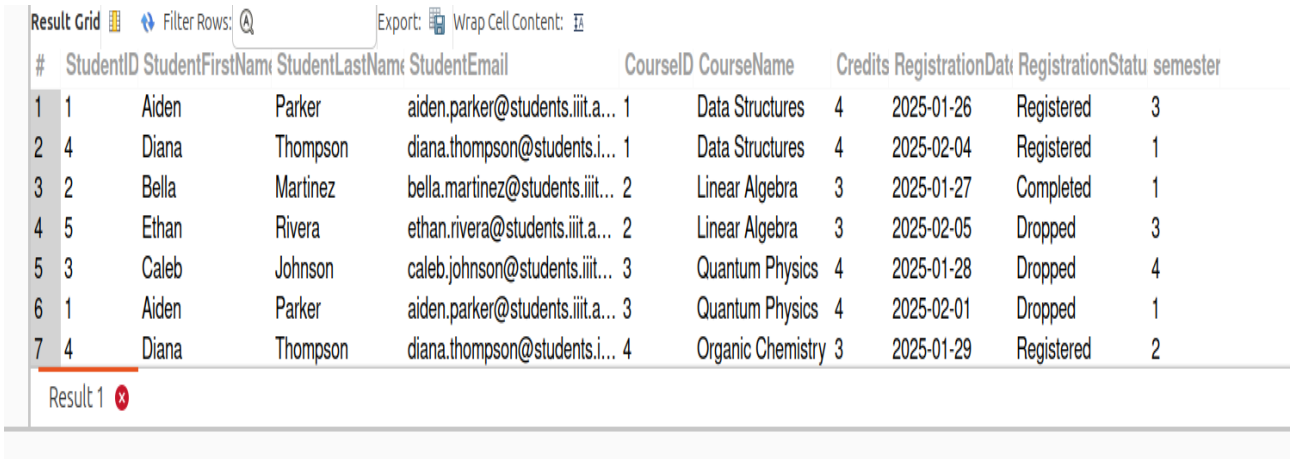
Result Grid | Filter Rows: | Edit: | Export/Import:

#	RegistrationID	StudentID	CourseID	RegistrationDate	Status	semester
1	1	1	1	2025-01-26	Registered	3
2	2	2	2	2025-01-27	Completed	1
3	3	3	3	2025-01-28	Dropped	4
4	4	4	4	2025-01-29	Registered	2
5	5	5	5	2025-01-30	Completed	3
6	6	1	3	2025-02-01	Dropped	1
7	7	2	4	2025-02-02	Registered	4

Student_Registration 1

Join Students, Course & Registration Table

```
USE Campus;

SELECT
    s.StudentID,
    s.FirstName AS StudentFirstName,
    s.LastName AS StudentLastName,
    s.Email AS StudentEmail,
    c.CourseID,
    c.CourseName,
    c.Credits,
    sr.RegistrationDate,
    sr.Status AS RegistrationStatus,
    sr.semester
FROM
    Students s
INNER JOIN
    Student_Registration sr ON s.StudentID = sr.StudentID
INNER JOIN
    Course c ON sr.CourseID = c.CourseID;
```



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

#	StudentID	StudentFirstNam	StudentLastNam	StudentEmail	CourseID	CourseName	Credits	RegistrationDat	RegistrationStatu	semester
1	1	Aiden	Parker	aiden.parker@students.iiit.a...	1	Data Structures	4	2025-01-26	Registered	3
2	4	Diana	Thompson	diana.thompson@students.i...	1	Data Structures	4	2025-02-04	Registered	1
3	2	Bella	Martinez	bella.martinez@students.iiit...	2	Linear Algebra	3	2025-01-27	Completed	1
4	5	Ethan	Rivera	ethan.rivera@students.iiit.a...	2	Linear Algebra	3	2025-02-05	Dropped	3
5	3	Caleb	Johnson	caleb.johnson@students.iiit...	3	Quantum Physics	4	2025-01-28	Dropped	4
6	1	Aiden	Parker	aiden.parker@students.iiit.a...	3	Quantum Physics	4	2025-02-01	Dropped	1
7	4	Diana	Thompson	diana.thompson@students.i...	4	Organic Chemistry	3	2025-01-29	Registered	2

Result 1