

# STUDENT MANAGEMENT SYSTEM

-Sandhiya



**Q1: List All Students Query: Display all student information including their ID, first name, last name, email, and gender.**

student_id	first_name	last_name	email	gender
1	Sandhiya	Arasu	sandhiyaarasu2004@gmail.com	F
2	Janani	Rajesh	jananirajesh@gmail.com	F
3	James	Smith	newemail@gmail.com	M
4	Ajay	Kumar	ajaykumar@gmail.com	M
5	Pradeep	Kumar	pradeepkumar@gmail.com	M
6	Arjun	Das	arjundas@gmail.com	M
7	Bala	Subramanian	balasubramaniam@gmail.com	M
8	Pranav	Venkatesh	pranavvenkatesh@gmail.com	M
9	Meenakshi	Ramesh	meenakshiramesh@gmail.com	F
10	Harini	prakash	hariniprakash@gmail.com	F
11	Diya	Rajesh	diyarajesh@gmail.com	F
12	Nandini	Krishnan	nandinikrishnan@gmail.com	F
13	Harish	Gowtham	harishgowtham@gmail.com	M
14	Dhruv	Vikram	dhruvvikram@gmail.com	M
15	Kavin	Selvam	kavinselvam@gmail.com	M

**Q2: List All Instructors Query: Retrieve all instructor details.**

instructor_id	instructor_name
1	Babu
2	Imran
3	Sabari
4	Sanjay
5	Kaviya
6	Abinaya
7	Yazhini
8	Meera
9	Atharva
10	Vikram

**Q3: List All Courses Query: Retrieve all course details along with the instructor id.**

course_id	course_name	instructor_id
1	Sql	2
2	Frontend	2
3	Java	3
4	Data Science	4
5	Cyber Security	5
6	AI & Machine Learning	6
7	Cloud Computing	7
8	DevOps	8
9	UI/UX Design	9
10	Full stack	10

Q4: List All Enrollments Query: Retrieve all student enrollments in courses.

enrollment_id	student_id	course_id	enrollment_date
1	1	1	2024-11-04
2	2	2	2024-12-03
3	3	5	2024-12-14
4	4	3	2024-10-10
5	5	7	2024-05-03
6	6	9	2024-01-02
7	7	4	2024-07-12
8	8	7	2024-08-21
9	9	1	2024-05-15
10	10	1	2024-06-17
11	11	2	2024-07-25
12	12	5	2024-10-15
13	13	6	2024-12-12
14	14	6	2024-12-10
15	15	3	2024-04-01

**Q5: List All Grades Query: Retrieve all grades for students in their respective courses.**

grade_id	enrollment_id	grade
1	1	A
2	2	A
3	3	B
4	4	C
5	5	C
6	6	A
7	7	B
8	8	C
9	9	B
10	10	A
11	11	B
12	12	A
13	13	C
14	14	A
15	15	A

**Q6: Fetch the Student Names along with Course Name**

**Query: Display the names of students along with the courses they are enrolled in.**

```
select s.first_name, s.last_name , c.course_name from enrollments as e
join students as s on s.student_id = e.student_id
join courses as c on c.course_id = e.course_id;
```

first_name	last_name	course_name
Sandhiya	Arasu	Sql
Janani	Rajesh	Frontend
James	Smith	Cyber Security
Ajay	Kumar	Java
Pradeep	Kumar	Cloud Computing
Arjun	Das	UI/UX Design
Bala	Subramanian	Data Science
Pranav	Venkatesh	Cloud Computing
Meenakshi	Ramesh	Sql
Harini	prakash	Sql
Diya	Rajesh	Frontend
Nandini	Krishnan	Cyber Security
Harish	Gowtham	AI & Machine Learning
Dhruv	Vikram	AI & Machine Learning
Kavin	Selvam	Java

**Q7: Fetch the Course Names along with Instructor Names**  
**Query: Display course names along with their respective instructor names.**

```
select c.course_name as c, i.instructor_name as i
from courses as c
join instructors as i on i.instructor_id = c.instructor_id;
```

c	i
Sql	Imran
Frontend	Imran
Java	Sabari
Data Science	Sanjay
Cyber Security	Kaviya
AI & Machine Learning	Abinaya
Cloud Computing	Yazhini
DevOps	Meera
UI/UX Design	Atharva
Full stack	Vikram



**Q8: Fetch Students' Name, Course Name, Instructor Name, and Grades for All Enrollments**  
**Query: Retrieve the names of students, course names, instructor names, and the grades they received in their respective courses.**

```
select s.first_name , s.last_name , c.course_name , i.instructor_name, g.grade
from enrollments as e
join students as s on s.student_id = e.student_id
join courses as c on c.course_id = e.course_id
join instructors as i on i.instructor_id = c.instructor_id
join grades as g on e.enrollment_id = g.enrollment_id;
```

first_name	last_name	course_name	instructor_name	grade
Sandhiya	Arasu	Sql	Imran	A
Janani	Rajesh	Frontend	Imran	A
James	Smith	Cyber Security	Kaviya	B
Ajay	Kumar	Java	Sabari	C
Pradeep	Kumar	Cloud Computing	Yazhini	C
Arjun	Das	UI/UX Design	Atharva	A
Bala	Subramanian	Data Science	Sanjay	B
Pranav	Venkatesh	Cloud Computing	Yazhini	C
Meenakshi	Ramesh	Sql	Imran	B
Harini	prakash	Sql	Imran	A
Diya	Rajesh	Frontend	Imran	B
Nandini	Krishnan	Cyber Security	Kaviya	A
Harish	Gowtham	AI & Machine Learning	Abinaya	C
Dhruv	Vikram	AI & Machine Learning	Abinaya	A
Kavin	Selvam	Java	Sabari	A

**Q9: Fetch the Students Who Received an 'A' Grade in At Least One Course**  
**Query: List all students who have received an "A" grade in any course.**

```
select s.first_name , s.last_name from students as s
where s.student_id in
(select e.student_id from enrollments as e
join grades as g on e.enrollment_id = g.enrollment_id
where g.grade = "A");
```

first_name	last_name
Sandhiya	Arasu
Janani	Rajesh
Arjun	Das
Harini	prakash
Nandini	Krishnan
Dhruv	Vikram
Kavin	Selvam

**Q10: Stored Procedure to Retrieve All Students Enrolled in a Course Taught by a Specific Instructor**  
**Query: A stored procedure that retrieves all students enrolled in a course taught by a given instructor.**

```
delimiter $$
create procedure getcourse(instructor_name_param varchar(50))
begin
    select s.first_name, s.last_name, c.course_name, i.instructor_name
    from students as s
    join enrollments as e on e.student_id = s.student_id
    join courses as c on c.course_id = e.course_id
    join instructors as i on i.instructor_id = c.instructor_id
    where i.instructor_name = instructor_name_param;
end $$
delimiter ;
call getcourse('Babu');
```

first_name	last_name	course_name
Sandhiya	Arasu	Sql
Janani	Rajesh	Sql
Meenakshi	Ramesh	Sql

**Q11: Count the Number of Students Enrolled in Each Course**  
**Query: List the number of students enrolled in each course.**

```
delimiter $$
create procedure student_in_each_course()
begin
select count(s.student_id) as no_of_students , c.course_name
from students as s
join enrollments as e on e.student_id = s.student_id
join courses as c on c.course_id = e.course_id
group by c.course_name;
end $$
delimiter ;
drop procedure if exists student_in_each_course;
call student_in_each_course();
```

no_of_students	course_name
3	Sql
2	Frontend
2	Cyber Security
2	Java
2	Cloud Computing
1	UI/UX Design
1	Data Science
2	AI & Machine Learning