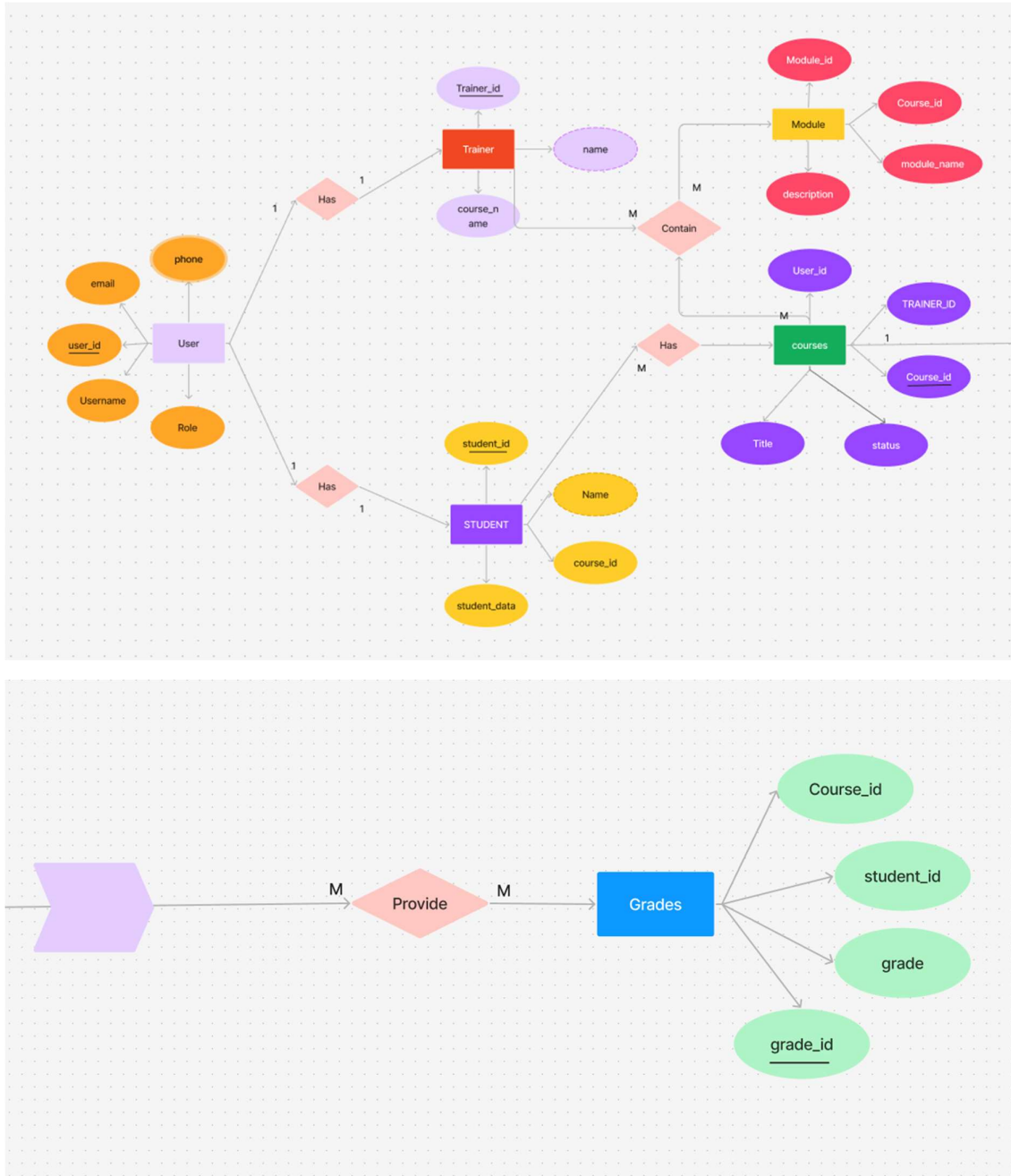


Case Study on Edu Tech Website

This case study explores the creation and management of an education-based SQL database named **EDUTECH**. The database contains multiple entities like **USERS**, **TRAINER**, **COURSES**, **STUDENT**, **MODULE**, and **GRADES**, which are used to manage an educational platform's operations.

Entity Relationship Diagram (E.R):



1. USERS Table:

The **USERS** table stores the basic information of users on the platform, including their username, email, phone number, and role (e.g., Admin, Student, Trainer).

```
SELECT * FROM USERS;
```

	USER_ID	USERNAME	EMAIL	PHONE	ROLE
▶	1	amit_sharma	amit@gmail.com	9876543211	Admin
	2	sneha_patil	sneha@gmail.com	9876543212	Student
	3	raj_kumar	raj@gmail.com	9876543213	Trainer
	4	manisha_verma	manisha@gmail.com	9876543214	Student
	5	deepak_singh	deepak@gmail.com	9876543215	Admin
*	NULL	NULL	NULL	NULL	NULL

2. TRAINER Table:

The **TRAINER** table holds the trainer's details including their name, the course they teach, and their experience in years.

```
SELECT * FROM TRAINER;
```

	TRAINER_ID	NAME	COURSE_NAME	EXPERIENCE
▶	100	Rahul Sharma	Data Science	5
	101	Snehal Joshi	Machine Learning	9
	102	Anjali Mehta	Web Development	10
	103	Ravi Rao	Cloud Computing	6
	104	Vikas Singh	Cyber Security	8
*	NULL	NULL	NULL	NULL

3. COURSES Table:

The **COURSES** table stores information about the available courses, including their status (active/inactive), trainer, and related users.

```
SELECT * FROM COURSES;
```

	COURSE_ID	COURSE_NAME	STATUS	USER_ID	TRAINER_ID
▶	200	Data Science	1	1	100
	201	Machine Learning	1	1	101
	202	Web Development	1	3	102
	203	Cloud Computing	0	1	103
	204	Cyber Security	1	5	104
*	NULL	NULL	NULL	NULL	NULL

4. STUDENT Table:

The **STUDENT** table contains student information, such as their name, educational background, and the course they are enrolled in.

```
SELECT * FROM STUDENT;
```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
STUDENT_ID	NAME	STUDENT_DATA	COURSE_ID	
300	Priya Nair	BCA	200	
301	Rohan Malhotra	MCA	201	
302	Aditi Deshmukh	BSc IT	202	
303	Ankit Jain	BTech CSE	203	
304	Kavya Rao	BCom	204	

5. MODULE Table:

The **MODULE** table records individual course modules, including their name, description, and status.

```
SELECT * FROM MODULE;
```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
MODULE_ID	NAME	DESCRIPTION	STATUS	COURSE_ID
400	Introduction to Data Science	Data Science Basics	1	200
401	Advanced Machine Learning	Deep Learning Concepts	1	201
402	Frontend Development	HTML, CSS, JS	0	202
403	Cloud Architecture	Cloud Services and Deployment	1	203
404	Ethical Hacking Basics	Introduction to Cyber Security	1	204
* NULL	NULL	NULL	NULL	NULL

6. GRADES Table:

The **GRADES** table stores student grades for each course.

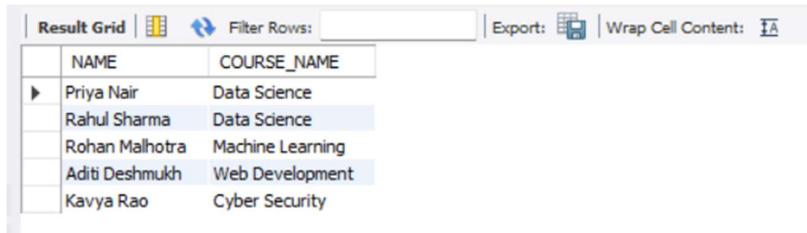
```
SELECT * FROM GRADES;
```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
GRADE_ID	GRADE	STUDENT_ID	COURSE_ID	
500	A	300	200	
501	B	301	201	
502	A+	302	202	
503	B+	303	203	
504	A	304	204	

7. List all students who are enrolled in active courses.

```
SELECT STUDENT.NAME, COURSES.COURSE_NAME
FROM STUDENT
JOIN COURSES ON STUDENT.COURSE_ID = COURSES.COURSE_ID
```

WHERE COURSES.STATUS = TRUE;

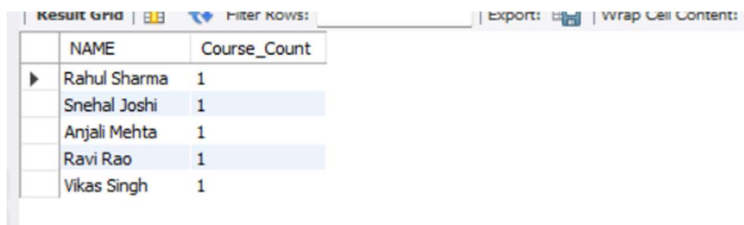


The screenshot shows a 'Result Grid' with a toolbar at the top containing icons for 'Filter Rows', 'Export', and 'Wrap Cell Content'. The grid displays two columns: 'NAME' and 'COURSE_NAME'. The data rows are as follows:

NAME	COURSE_NAME
Priya Nair	Data Science
Rahul Sharma	Data Science
Rohan Malhotra	Machine Learning
Aditi Deshmukh	Web Development
Kavya Rao	Cyber Security

8. Retrieve the trainers who are assigned to more than or equal to one course.

```
SELECT TRAINER.NAME, COUNT (COURSES.COURSE_ID) AS Course_Count
FROM TRAINER
JOIN COURSES ON TRAINER.TRAINER_ID = COURSES.TRAINER_ID
GROUP BY TRAINER.NAME
HAVING Course_Count >= 1;
```

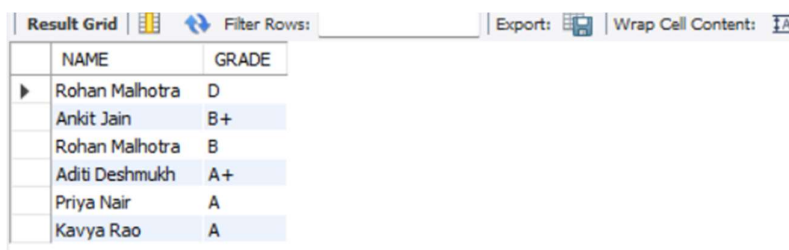


The screenshot shows a 'Result Grid' with a toolbar at the top. The grid displays two columns: 'NAME' and 'Course_Count'. The data rows are as follows:

NAME	Course_Count
Rahul Sharma	1
Snehal Joshi	1
Anjali Mehta	1
Ravi Rao	1
Vikas Singh	1

9. Display all students along with the grade they received, sorted by the grade in descending order.

```
SELECT STUDENT.NAME, GRADES.GRADE
FROM STUDENT
JOIN GRADES ON STUDENT.STUDENT_ID = GRADES.STUDENT_ID
ORDER BY GRADES.GRADE DESC;
```

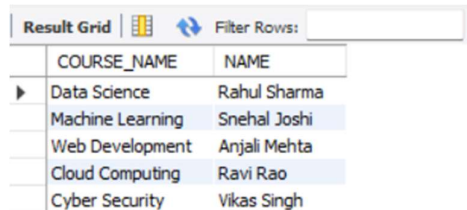


The screenshot shows a 'Result Grid' with a toolbar at the top. The grid displays two columns: 'NAME' and 'GRADE'. The data rows are as follows:

NAME	GRADE
Rohan Malhotra	D
Ankit Jain	B+
Rohan Malhotra	B
Aditi Deshmukh	A+
Priya Nair	A
Kavya Rao	A

10. Find the course names along with the trainer names for all courses.

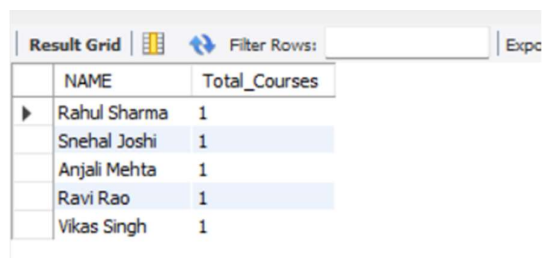
```
SELECT COURSES.COURSE_NAME, TRAINER.NAME  
FROM COURSES  
JOIN TRAINER ON COURSES.TRAINER_ID = TRAINER.TRAINER_ID;
```



COURSE_NAME	NAME
Data Science	Rahul Sharma
Machine Learning	Snehal Joshi
Web Development	Anjali Mehta
Cloud Computing	Ravi Rao
Cyber Security	Vikas Singh

11. Count the number of courses each trainer is teaching.

```
SELECT TRAINER.NAME, COUNT(COURSES.COURSE_ID) AS Total_Courses  
FROM TRAINER  
JOIN COURSES ON TRAINER.TRAINER_ID = COURSES.TRAINER_ID  
GROUP BY TRAINER.NAME;
```



NAME	Total_Courses
Rahul Sharma	1
Snehal Joshi	1
Anjali Mehta	1
Ravi Rao	1
Vikas Singh	1

12. Find the course and trainer for students who scored an "A" grade.

```
SELECT STUDENT.NAME, COURSES.COURSE_NAME, TRAINER.NAME  
FROM STUDENT  
JOIN GRADES ON STUDENT.STUDENT_ID = GRADES.STUDENT_ID  
JOIN COURSES ON GRADES.COURSE_ID = COURSES.COURSE_ID  
JOIN TRAINER ON COURSES.TRAINER_ID = TRAINER.TRAINER_ID  
WHERE GRADES.GRADE = 'A';
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
NAME	COURSE_NAME	NAME	
Priya Nair	Data Science	Rahul Sharma	
Kavya Rao	Cyber Security	Vikas Singh	

13. List the names of students and the courses that have the status 'FALSE'.

```
SELECT STUDENT.NAME, COURSES.COURSE_NAME
FROM STUDENT
JOIN COURSES ON STUDENT.COURSE_ID = COURSES.COURSE_ID
WHERE COURSES.STATUS = FALSE;
```

Result Grid	Filter Rows:	Export:
NAME	COURSE_NAME	
Ankit Jain	Cloud Computing	

14. Display the total number of students enrolled in each course.

```
SELECT COURSES.COURSE_NAME, COUNT(STUDENT.STUDENT_ID) AS Total_Students
FROM COURSES
JOIN STUDENT ON COURSES.COURSE_ID = STUDENT.COURSE_ID
GROUP BY COURSES.COURSE_NAME;
```

Result Grid	Filter Rows:	Export:
COURSE_NAME	Total_Students	
Cloud Computing	1	
Cyber Security	1	
Data Science	2	
Machine Learning	1	
Web Development	1	

15. Create a view to list all active courses and their trainers.

```
CREATE VIEW ActiveCoursesView AS
SELECT COURSES.COURSE_NAME, TRAINER.NAME AS Trainer
```

```

FROM COURSES
JOIN TRAINER ON COURSES.TRAINER_ID = TRAINER.TRAINER_ID
WHERE COURSES.STATUS = TRUE;
SELECT * FROM ActiveCoursesView; //----- to retrieve the view

```

Result Grid		Filter Rows:	Export:	Wrap
	COURSE_NAME	Trainer		
▶	Data Science	Rahul Sharma		
	Machine Learning	Snehal Joshi		
	Web Development	Anjali Mehta		
	Cyber Security	Vikas Singh		

16. List all courses that have more than 2 modules.

```

SELECT COURSES.COURSE_NAME, COUNT(MODULE.MODULE_ID) AS Module_Count
FROM COURSES
JOIN MODULE ON COURSES.COURSE_ID = MODULE.COURSE_ID
GROUP BY COURSES.COURSE_NAME
HAVING Module_Count > 2;

```

Result Grid		Filter Rows:	Export:	Wrap Cell Cont
	COURSE_NAME	Module_Count		

17. Find the student(s) enrolled in the course 'Data Science'.

```

SELECT STUDENT.NAME
FROM STUDENT
JOIN COURSES ON STUDENT.COURSE_ID = COURSES.COURSE_ID
WHERE COURSES.COURSE_NAME = 'Data Science';

```

Result Grid		Filter Rows:
	NAME	
▶	Priya Nair	
	Rahul Sharma	

18. List all trainers who have not taught any courses.

```
SELECT NAME
FROM TRAINER
WHERE TRAINER_ID NOT IN (SELECT DISTINCT TRAINER_ID FROM COURSES);
```

19. Write a stored procedure to update the experience of a trainer-by-trainer ID.

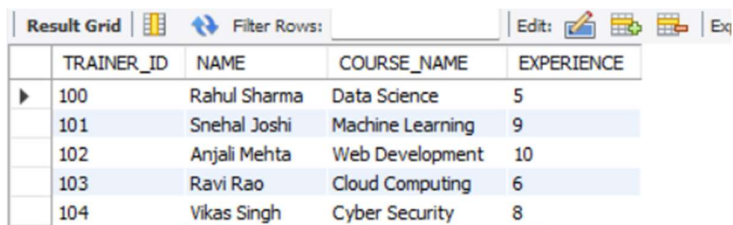
```
DELIMITER //

CREATE PROCEDURE UpdateTrainerExperience(IN trainerId INT, IN newExperience INT)
BEGIN
    UPDATE TRAINER
    SET EXPERIENCE = newExperience
    WHERE TRAINER_ID = trainerId;
END //

DELIMITER ;
```

-- Call the procedure

```
CALL UpdateTrainerExperience(101, 9);
```



The screenshot shows a database result grid with the following data:

	TRAINER_ID	NAME	COURSE_NAME	EXPERIENCE
▶	100	Rahul Sharma	Data Science	5
	101	Snehal Joshi	Machine Learning	9
	102	Anjali Mehta	Web Development	10
	103	Ravi Rao	Cloud Computing	6
	104	Vikas Singh	Cyber Security	8

20. Create a trigger that prevents the insertion of duplicate phone numbers in the USERS table.

```
DELIMITER //

CREATE TRIGGER prevent_duplicate_phone
BEFORE INSERT ON USERS
FOR EACH ROW
BEGIN
```



```

DECLARE phoneExists INT;

SELECT COUNT(*) INTO phoneExists FROM USERS WHERE PHONE = NEW.PHONE;

IF phoneExists > 0 THEN

    SIGNAL SQLSTATE '45000'

    SET MESSAGE_TEXT = 'Duplicate phone number not allowed';

END IF;

END//

DELIMITER ;

INSERT INTO USERS (USERNAME, EMAIL, PHONE, ROLE)

VALUES

('RAVI RAJ', 'RAJ@gmail.com', 9876543211, 'dean');

```

Output				
Action Output				
#	Time	Action	Message	Duration / Fetch
27	11:39:34	select * from trainer LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.00
28	11:40:17	CALL DeleteCourse(202)	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('edutech`.`grades`, CON...	0.000 sec
29	11:42:18	CREATE TRIGGER prevent_duplicate_phone BEFORE INSERT ON USERS FOR EACH ROW BEGIN DEC...	Error Code: 1359. Trigger already exists	0.032 sec
30	11:42:40	INSERT INTO USERS (USER_ID, PHONE, NAME) VALUES (1, '1234567890', 'John Doe')	Error Code: 1054. Unknown column 'NAME' in field list	0.015 sec
31	11:45:22	INSERT INTO USERS (USERNAME, EMAIL, PHONE, ROLE) VALUES ('RAVI RAJ', 'RAJ@gmail.com', 98...	Error Code: 1644. Duplicate phone number not allowed	0.047 sec

21. Find the course(s) with the most students enrolled.

```

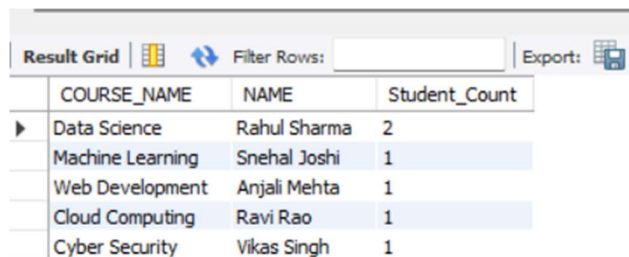
SELECT C.COURSE_NAME, COUNT(S.STUDENT_ID) AS STUDENT_COUNT
FROM COURSES C
JOIN STUDENT S ON C.COURSE_ID = S.COURSE_ID
GROUP BY C.COURSE_ID, C.COURSE_NAME
ORDER BY STUDENT_COUNT DESC
LIMIT 1;

```

Result Grid			Filter Rows:
	COURSE_NAME	STUDENT_COUNT	
►	Data Science	2	

22. Display the total number of students for each course along with their respective trainers.

```
SELECT COURSES.COURSE_NAME, TRAINER.NAME, COUNT(STUDENT.STUDENT_ID) AS  
Student_Count  
  
FROM COURSES  
  
JOIN TRAINER ON COURSES.TRAINER_ID = TRAINER.TRAINER_ID  
JOIN STUDENT ON COURSES.COURSE_ID = STUDENT.COURSE_ID  
GROUP BY COURSES.COURSE_NAME, TRAINER.NAME;
```



The screenshot shows a 'Result Grid' window with a toolbar at the top containing icons for 'Filter Rows' and 'Export'. The grid displays the following data:

	COURSE_NAME	NAME	Student_Count
▶	Data Science	Rahul Sharma	2
	Machine Learning	Snehal Joshi	1
	Web Development	Anjali Mehta	1
	Cloud Computing	Ravi Rao	1
	Cyber Security	Vikas Singh	1

23. Retrieve all students who have grades lower than the average grade for their course.

```
SELECT STUDENT.NAME, GRADES.GRADE, COURSES.COURSE_NAME  
  
FROM STUDENT  
  
JOIN GRADES ON STUDENT.STUDENT_ID = GRADES.STUDENT_ID  
JOIN COURSES ON GRADES.COURSE_ID = COURSES.COURSE_ID  
WHERE GRADES.GRADE < (SELECT AVG(GRADES.GRADE)  
  
FROM GRADES  
  
WHERE COURSE_ID = COURSES.COURSE_ID);
```

24. Find the students who are enrolled in courses taught by 'Anjali Mehta'.

```
SELECT STUDENT.NAME, TRAINER.NAME  
  
FROM STUDENT  
  
JOIN COURSES ON STUDENT.COURSE_ID = COURSES.COURSE_ID  
JOIN TRAINER ON COURSES.TRAINER_ID = TRAINER.TRAINER_ID  
WHERE TRAINER.NAME = 'Anjali Mehta';
```

Result Grid		Filter Rows:	Export:
	NAME	NAME	
▶	Aditi Deshmukh	Anjali Mehta	

25. Show the names of students along with the name of their courses and their grades, including students without grades.

```
SELECT STUDENT.NAME AS Student_Name, COURSES.COURSE_NAME,
COALESCE(GRADES.GRADE, 'No Grade') AS Grade
```

```
FROM STUDENT
```

```
LEFT JOIN COURSES ON STUDENT.COURSE_ID = COURSES.COURSE_ID
```

```
LEFT JOIN GRADES ON STUDENT.STUDENT_ID = GRADES.STUDENT_ID;
```

Result Grid		Filter Rows:	Export:
	Student_Name	COURSE_NAME	Grade
▶	Priya Nair	Data Science	A
	Rohan Malhotra	Machine Learning	B
	Rohan Malhotra	Machine Learning	D
	Aditi Deshmukh	Web Development	A+
	Ankit Jain	Cloud Computing	B+
	Kavya Rao	Cyber Security	A
	Rahul Sharma	Data Science	No Grade
	Rohan Malhotra	NULL	No Grade

26. Write a stored procedure to add a new student to the database.

```
DELIMITER //
```

```
CREATE PROCEDURE AddStudent(IN studentName VARCHAR(30), IN studentData
VARCHAR(20), IN courseId INT)
```

```
BEGIN
```

```
INSERT INTO STUDENT (NAME, STUDENT_DATA, COURSE_ID)
```

```
VALUES (studentName, studentData, courseId);
```

```
END //
```

```
DELIMITER ;
```

```
CALL AddStudent('Rahul Sharma', 'BTech', 200);
```

Output			
Action Output			
#	Time	Action	Message
19	18:54:38	SELECT STUDENT.NAME, TRAINER.NAME FROM STUDENT JOIN COURSES ON STUDENT.COURSE_...	1 row(s) returned
20	18:55:30	SELECT STUDENT.NAME AS Student_Name, COURSES.COURSE_NAME, COALESCE(GRADES.GRADE, ...	8 row(s) returned
21	18:57:23	CALL AddStudent('Rahul Sharma', 'BTech', 200)	1 row(s) affected

27. Create an Exception handling mechanism to prevent updates on courses that are inactive.

```

DELIMITER //

CREATE TRIGGER PreventInactiveCourseUpdate

BEFORE UPDATE ON COURSES

FOR EACH ROW

BEGIN

    IF NEW.STATUS = FALSE THEN

        SIGNAL SQLSTATE '45000'

        SET MESSAGE_TEXT = 'Cannot update inactive courses';

    END IF;

END //

DELIMITER ;

INSERT INTO COURSES (COURSE_ID, COURSE_NAME, STATUS)

VALUES (1, 'Sample Course', FALSE);

UPDATE COURSES

SET COURSE_NAME = 'Updated Course Name'

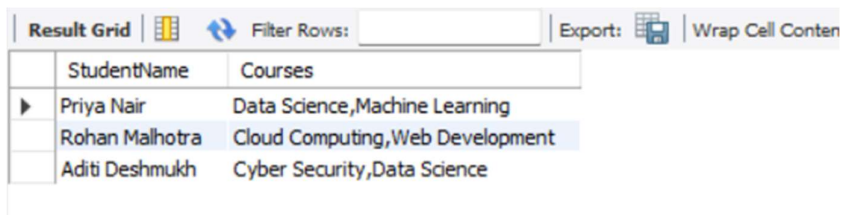
WHERE COURSE_ID = 1;

```

Output			
Action Output			
#	Time	Action	Message
22	18:58:55	CREATE TRIGGER PreventInactiveCourseUpdate BEFORE UPDATE ON COURSES FOR EACH ROW BEG...	Error Code: 1359. Trigger already exists
23	19:01:28	INSERT INTO COURSES (COURSE_ID, COURSE_NAME, STATUS) VALUES (1, 'Sample Course', FALSE)	1 row(s) affected
24	19:02:18	UPDATE COURSES SET COURSE_NAME = 'Updated Course Name' WHERE COURSE_ID = 1	Error Code: 1644. Cannot update inactive courses

28. Write a query to retrieve students who are taking multiple courses, and list the names of those courses.

```
SELECT S.NAME AS StudentName, GROUP_CONCAT(C.COURSE_NAME) AS Courses
FROM STUDENT S
JOIN STUDENT_COURSES SC ON S.STUDENT_ID = SC.STUDENT_ID
JOIN COURSES C ON SC.COURSE_ID = C.COURSE_ID
GROUP BY S.STUDENT_ID
HAVING COUNT (SC.COURSE_ID) > 1;
```



The screenshot shows a database query result grid with two columns: 'StudentName' and 'Courses'. The grid contains three rows of data. The first row shows 'Priya Nair' taking 'Data Science, Machine Learning'. The second row shows 'Rohan Malhotra' taking 'Cloud Computing, Web Development'. The third row shows 'Aditi Deshmukh' taking 'Cyber Security, Data Science'. The grid has a toolbar at the top with options like 'Result Grid', 'Filter Rows', 'Export', and 'Wrap Cell Content'.

StudentName	Courses
Priya Nair	Data Science, Machine Learning
Rohan Malhotra	Cloud Computing, Web Development
Aditi Deshmukh	Cyber Security, Data Science

29. Create a stored procedure that assigns a grade to a student. If the grade is below 'C', automatically enroll the student in a remedial course.

```
DELIMITER //
```

```
CREATE PROCEDURE AssignGradeAndCheckRemedial(
    IN studentId INT,
    IN courseId INT,
    IN grade VARCHAR(10)
)
BEGIN
    -- Assign the grade to the student
    INSERT INTO GRADES (GRADE, STUDENT_ID, COURSE_ID)
    VALUES (grade, studentId, courseId);

    -- Check if grade is below 'C', if so enroll in remedial course
    IF grade IN ('D', 'E', 'F') THEN
        INSERT INTO STUDENT (NAME, STUDENT_DATA, COURSE_ID)
```

```
SELECT NAME, STUDENT_DATA, (SELECT COURSE_ID FROM COURSES WHERE
COURSE_NAME = 'Remedial Course')
```

```
FROM STUDENT WHERE STUDENT_ID = studentId;
```

```
END IF;
```

```
END //
```

```
DELIMITER ;
```

```
-- Call the procedure
```

```
CALL AssignGradeAndCheckRemedial(301, 200, 'D');
```

Output			
Action Output			
#	Time	Action	Message
3	07:54:07	SELECT NAME FROM TRAINER WHERE TRAINER_ID NOT IN (SELECT DISTINCT TRAINER_ID FROM ...	0 row(s) returned
4	07:54:25	SELECT MODULE.NAME AS Module_Name, COURSES.COURSE_NAME FROM MODULE JOIN COURSES...	5 row(s) returned
5	07:55:54	CALL AssignGradeAndCheckRemedial(301, 200, 'D')	1 row(s) affected

30. Get the list of all modules along with the corresponding course name.

```
SELECT MODULE.NAME AS Module_Name, COURSES.COURSE_NAME
```

```
FROM MODULE
```

```
JOIN COURSES ON MODULE.COURSE_ID = COURSES.COURSE_ID;
```

Result Grid		
Filter Rows:		
Export: Wrap Cell Content:		
Module_Name	COURSE_NAME	
Introduction to Data Science	Data Science	
Advanced Machine Learning	Machine Learning	
Frontend Development	Web Development	
Cloud Architecture	Cloud Computing	
Ethical Hacking Basics	Cyber Security	

31. Write a query to check if a course is active (where STATUS = TRUE). If active, display "Course is available," otherwise display "Course is unavailable."

```
SELECT COURSE_NAME,
```

```
CASE
```

```
WHEN STATUS = TRUE THEN 'Course is available'
```

```
ELSE 'Course is unavailable'
```

```
END AS Availability
```

```
FROM COURSES;
```

Result Grid		Filter Rows:	Expo
	COURSE_NAME	Availability	
▶	Sample Course	Course is unavailable	
	Data Science	Course is available	
	Machine Learning	Course is available	
	Web Development	Course is available	
	Cloud Computing	Course is unavailable	
	Cyber Security	Course is available	
	remidial Course	Course is available	

32. Write a query that attempts to insert a new user with an existing email. Handle the error by printing "Duplicate email - cannot add user."

```

DELIMITER //
CREATE PROCEDURE InsertUserWithCheck()
BEGIN
    DECLARE EXIT HANDLER FOR SQLEXCEPTION
    BEGIN
        SELECT 'Duplicate email - cannot add user' AS Error;
    END;
    INSERT INTO USERS (USERNAME, EMAIL, PHONE, ROLE)
    VALUES ('john_doe', 'amit@gmail.com', 9876543216, 'Student');
END //
DELIMITER ;

CALL InsertUserWithCheck();

```

Result Grid		Filter Rows:	Ex
	Error		
▶	Duplicate email - cannot add user		

33. Write a stored procedure that assigns labels to students based on their grade.

```

DELIMITER //
CREATE PROCEDURE CheckStudentGrades()
BEGIN
    DECLARE done INT DEFAULT FALSE;
    DECLARE studentName VARCHAR(30);
    DECLARE grade VARCHAR(10);
    DECLARE cur CURSOR FOR
        SELECT S.NAME, G.GRADE
        FROM STUDENT S

```

```

JOIN GRADES G ON S.STUDENT_ID = G.STUDENT_ID;

DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;

OPEN cur;

loop_grades: LOOP

    FETCH cur INTO studentName, grade;

    IF done THEN

        LEAVE loop_grades;

    END IF;

    IF grade = 'A+' THEN

        SELECT CONCAT(studentName, ' - Excellent') AS GradeLabel;

    ELSEIF grade = 'A' THEN

        SELECT CONCAT(studentName, ' - Good') AS GradeLabel;

    ELSEIF grade = 'B+' THEN

        SELECT CONCAT(studentName, ' - Average') AS GradeLabel;

    ELSE

        SELECT CONCAT(studentName, ' - Needs Improvement') AS GradeLabel;

    END IF;

END LOOP;

CLOSE cur;

END //

DELIMITER ;

CALL CheckStudentGrades();

```

Result Grid		Filter Rows:
	GradeLabel	
▶	Aditi Deshmukh - Excellent	

Result Grid		Filter Rows:
	GradeLabel	
▶	Ankit Jain - Average	

34. Write a procedure to insert a student. If the COURSE_ID doesn't exist, display "Course ID not found."

```

DELIMITER //

```



```

CREATE PROCEDURE InsertStudentWithCourseCheck()
BEGIN
    DECLARE courseExists INT;

    SET courseExists = (SELECT COUNT(*) FROM COURSES WHERE COURSE_ID = 999);

    IF courseExists = 0 THEN
        SELECT 'Course ID not found';
    ELSE
        INSERT INTO STUDENT (NAME, STUDENT_DATA, COURSE_ID)
        VALUES ('John Doe', 'BCA', 999);
    END IF;
END //

DELIMITER ;

CALL InsertStudentWithCourseCheck();

```

Result Grid	Filter Rows:
Course ID not found	
▶ Course ID not found	

35. Write a loop that goes through each trainer's experience in the TRAINER table. If experience is greater than 5 years, print "Senior Trainer"; otherwise, print "Junior Trainer".

```

DELIMITER //
CREATE PROCEDURE CheckTrainerExperience()
BEGIN
    DECLARE done INT DEFAULT FALSE;
    DECLARE trainerName VARCHAR(20);
    DECLARE experience INT;
    DECLARE cur CURSOR FOR SELECT NAME, EXPERIENCE FROM TRAINER;
    DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = TRUE;

    OPEN cur;
loop_trainers: LOOP
    FETCH cur INTO trainerName, experience;
    IF done THEN
        LEAVE loop_trainers;
    END IF;
    IF experience > 5 THEN
        SELECT CONCAT(trainerName, ' is a Senior Trainer');
    ELSE

```

```
        SELECT CONCAT(trainerName, ' is a Junior Trainer');
    END IF;
END LOOP;
CLOSE cur;
END //
DELIMITER ;

CALL CheckTrainerExperience();
```

Result Grid		Filter Rows:	Export:
	CONCAT(trainerName, ' is a Junior Trainer')		
▶	Rahul Sharma is a Junior Trainer		