# MySQL University DBMS Practical SQL Queries

### 1. View of instructors who taught courses

```
CREATE VIEW Instructors_Taught AS
SELECT DISTINCT i.inst_id, i.name
FROM Instructor i
JOIN Teaches t ON i.inst_id = t.inst_id;
```

### 2. Instructors with salary > any in Biology

```
SELECT name FROM Instructor WHERE salary > ANY (SELECT salary FROM Instructor WHERE dept_name = 'Biology');
```

### 3. Departments with 'i' in name

```
SELECT dept_name FROM Department WHERE dept_name LIKE '%i%';
```

### 4. Instructors in Computer dept, salary > 70000

```
SELECT name FROM Instructor WHERE dept_name = 'Computer' AND salary > 70000;
```

### 5. View with 3 tables (Instructor, Course, Department)

```
CREATE VIEW Instructor_Course_View AS
SELECT i.name, c.title, d.building
FROM Instructor i
JOIN Course c ON i.dept_name = c.dept_name
JOIN Department d ON c.dept_name = d.dept_name;
```

### 6. Instructor names with 5 characters

```
SELECT name FROM Instructor WHERE LENGTH(name) = 5;
```

### 7. View: IT instructors and courses

```
CREATE VIEW IT_Instructors_Courses AS
SELECT i.name, c.title
FROM Instructor i
JOIN Teaches t ON i.inst_id = t.inst_id
JOIN Course c ON t.course_id = c.course_id
WHERE i.dept_name = 'IT';
```

### 8. Titles & dept where dept ends with 'y'

SELECT title, dept_name FROM Course WHERE dept_name LIKE '%y';

### 9. Average salary in Music dept

SELECT AVG(salary) FROM Instructor WHERE dept_name = 'Music';

### 10. Avg salary per department

SELECT dept_name, AVG(salary) FROM Instructor GROUP BY dept_name;

### 11. Departments with avg salary > 40000

SELECT dept_name, AVG(salary) FROM Instructor GROUP BY dept_name HAVING AVG(salary) > 40000;

### 12. Instructor-course list

SELECT i.name, c.title FROM Instructor i

JOIN Teaches t ON i.inst_id = t.inst_id

JOIN Course c ON t.course_id = c.course_id;

### 13. Salary update based on condition

UPDATE Instructor SET salary = salary + CASE WHEN salary < 40000 THEN 10000 ELSE 20000 END;

### 14. Students who have taken courses

SELECT DISTINCT s.sname FROM Student s JOIN Takes t ON s.sid = t.sid;

### 15. Avg marks per student (student db)

SELECT s.Name, AVG(m.Marks) FROM Student s

JOIN Marks m ON s.RollNo = m.RollNo GROUP BY s.Name;

### 16. Suppliers of red parts (supplier db)

SELECT DISTINCT s.Sname FROM Supplier s

JOIN Catalog c ON s.Sid = c.Sid

JOIN Parts p ON c.Pid = p.Pid WHERE p.color = 'red';