

CRUD (Create, Read, Update, Delete) guide with basic MySQL queries

1. CREATE — Create the Table

```
CREATE TABLE employee (  
    empno INT PRIMARY KEY,  
    ename VARCHAR(50),  
    job VARCHAR(50),  
    sal DECIMAL(10,2),  
    deptno INT  
);
```

2. INSERT — Add Data (C = Create)

```
INSERT INTO employee (empno, ename, job, sal, deptno)  
VALUES (101, 'John Doe', 'Manager', 5000.00, 10);  
  
INSERT INTO employee (empno, ename, job, sal, deptno)  
VALUES (102, 'Alice Smith', 'Clerk', 2500.00, 20);
```

3. READ — Fetch Data (R = Read)

☒ a) Select All Records

```
SELECT * FROM employee;
```

☒ b) Select Specific Columns

```
SELECT empno, ename, sal FROM employee;
```

☒ c) Filter Records (WHERE Clause)

```
SELECT * FROM employee WHERE job = 'Manager';
```

☒ d) Sort Records

```
SELECT * FROM employee ORDER BY sal DESC;
```

☒ **e) Limit Results**

```
SELECT * FROM employee LIMIT 2;
```

4. UPDATE — Modify Data (U = Update)

```
UPDATE employee  
SET sal = sal + 500  
WHERE empno = 101;
```

☒ *Increases John's salary by 500*

5. DELETE — Remove Data (D = Delete)

```
DELETE FROM employee  
WHERE empno = 102;
```

☒ *Deletes Alice's record*

6. Additional Useful Queries

☒ **a) Find employees by department**

```
SELECT * FROM employee WHERE deptno = 10;
```

☒ **b) Get employees earning above a certain salary**

```
SELECT * FROM employee WHERE sal > 3000;
```

☒ **c) Count employees**

```
SELECT COUNT(*) FROM employee;
```

☒ d) Increase salary for a department

```
UPDATE employee  
SET sal = sal * 1.1  
WHERE deptno = 10;
```

☒ Summary of CRUD Queries

Operation	Query Example
Create	INSERT INTO employee VALUES (...);
Read	SELECT * FROM employee;
Update	UPDATE employee SET sal = sal + 500 WHERE empno = 101;
Delete	DELETE FROM employee WHERE empno = 102;
