



# **Basic SQL Commands**

**1. Create a Database.** CREATE DATABASE students;

**2. Use a Database.** USE students;

**3. Create a Table**

```
CREATE TABLE learners (  
    id INT PRIMARY KEY AUTO_INCREMENT,  
    name VARCHAR(50) NOT NULL,  
    age INT NOT NULL  
);
```

**4. View All Tables.** SHOW TABLES;

**5. Insert Data**

```
INSERT INTO learners (name, age) VALUES  
('Alice', 10),  
('Bob', 12),  
('Charlie', 11);
```

**6. View Data.** SELECT \* FROM learners;

**7. Update Data**

```
UPDATE learners  
SET age = 13  
WHERE name = 'Bob';
```

**8. Delete Data**

```
DELETE FROM learners  
WHERE name = 'Charlie';
```

**9. Delete a Table.** DROP TABLE learners;

**10. Delete a Database.** DROP DATABASE students;

# Basic SQL Commands

## ① Create a Database

```
CREATE DATABASE students_db;
```

Makes a new database.

Use SHOW DATABASES; to see all databases.

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## ② Use a Database

```
USE students_db;
```

Switch to this database before creating tables.

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## ③ Create a Table

```
CREATE TABLE students (  
  id INT AUTO_INCREMENT PRIMARY KEY,  
  first_name VARCHAR(50) NOT NULL,  
  last_name VARCHAR(50) NOT NULL,  
  email VARCHAR(100) UNIQUE NOT NULL,  
  age INT,  
  date_of_birth DATE,  
  enrolled_on DATETIME DEFAULT CURRENT_TIMESTAMP,  
  is_active BOOLEAN DEFAULT 1  
);
```

PRIMARY KEY = unique ID

AUTO\_INCREMENT = increases automatically

UNIQUE = no duplicates allowed

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# Basic SQL Commands

## ④ View Tables

```
SHOW TABLES;
```

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## ⑤ See Table Structure

```
DESCRIBE students;
```

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## ⑥ Insert Data

```
INSERT INTO students (first_name, last_name, email, age, date_of_birth)
VALUES ('John', 'Doe', 'john@example.com', 20, '2005-08-09');
```

id and enrolled\_on fill automatically.

---

## ⑦ View All Data

```
SELECT * FROM students;
```

\* means "all columns".

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## ⑧ View Specific Columns

```
SELECT first_name, email FROM students;
```

---

## ⑨ Update Data

## Basic SQL Commands

```
UPDATE students  
SET age = 21  
WHERE id = 1;
```

WHERE is important! Without it, all rows will be updated.

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### 10 Delete Data

```
DELETE FROM students  
WHERE id = 1;
```

⚠ Without WHERE, it deletes everything.

---

### 11 Delete Table

```
DROP TABLE students;
```

---

### 12 Delete Database

```
DROP DATABASE students_db;
```

---

### 13 Search / Filter

```
SELECT * FROM students WHERE age > 18;  
SELECT * FROM students WHERE first_name = 'John';
```

---

### 14 Sort Results

## **Basic SQL Commands**

```
SELECT * FROM students ORDER BY age ASC; -- Oldest first  
SELECT * FROM students ORDER BY age DESC; -- Youngest first
```

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### Count Records

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

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