# SQL Commands for Two Tables

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## 🔹 Creating Two SQL Tables

### SQL to Create Tables

CREATE TABLE Students (  
 StudentID INT PRIMARY KEY,  
 Name VARCHAR(100),  
 Age INT,  
 Grade VARCHAR(10),  
 IsPassed BOOLEAN  
);  
  
CREATE TABLE Courses (  
 CourseID INT PRIMARY KEY,  
 CourseName VARCHAR(100),  
 Credits INT  
);

## 🔹 DQL (Data Query Language) Commands

### DQL Commands

-- Retrieve all records from Students table  
SELECT \* FROM Students;  
  
-- Retrieve specific columns from Courses table  
SELECT CourseID, CourseName FROM Courses;  
  
-- Find students who have passed  
SELECT \* FROM Students WHERE IsPassed = TRUE;  
  
-- Sort students by Age in descending order  
SELECT \* FROM Students ORDER BY Age DESC;  
  
-- Count the total number of students  
SELECT COUNT(\*) FROM Students;

## 🔹 DDL (Data Definition Language) Commands

### DDL Commands

-- Add a new column to Students table  
ALTER TABLE Students ADD COLUMN Email VARCHAR(100);  
  
-- Rename a column in Courses table  
ALTER TABLE Courses RENAME COLUMN Credits TO CourseCredits;  
  
-- Delete a column from Students table  
ALTER TABLE Students DROP COLUMN Email;  
  
-- Drop the Courses table  
DROP TABLE Courses;

## 🔹 DML (Data Manipulation Language) Commands

### DML Commands

-- Insert records into Students table  
INSERT INTO Students (StudentID, Name, Age, Grade, IsPassed) VALUES (1, 'Alice', 20, 'A', TRUE);  
INSERT INTO Students (StudentID, Name, Age, Grade, IsPassed) VALUES (2, 'Bob', 22, 'B', FALSE);  
  
-- Update student information  
UPDATE Students SET Grade = 'A+' WHERE Name = 'Alice';  
  
-- Delete a student record  
DELETE FROM Students WHERE Name = 'Bob';

## 🔹 DCL (Data Control Language) Commands

### DCL Commands

-- Grant SELECT permission on Students table to a user  
GRANT SELECT ON Students TO 'user1';  
  
-- Revoke SELECT permission on Students table from a user  
REVOKE SELECT ON Students FROM 'user1';