SQL Query Examples

CampusCloud project

Kwantlen Polytechnic University

Query 1

```sql
-- Top five students in class 401

SELECT
    s.studentID AS `SID`,
    s.fName AS `First Name`,
    s.lName AS `Last Name`,
    ce.grade AS `Grade`
FROM ClassEvaluation ce
JOIN Student s
    ON ce.studentID = s.studentID
WHERE ce.classID = 401
ORDER BY
    CASE ce.grade
        WHEN 'A+' THEN 12
        WHEN 'A'  THEN 11
        WHEN 'A-' THEN 10
        WHEN 'B+' THEN 9
        WHEN 'B'  THEN 8
        WHEN 'B-' THEN 7
        WHEN 'C+' THEN 6
        WHEN 'C'  THEN 5
        WHEN 'C-' THEN 4
        WHEN 'D+' THEN 3
        WHEN 'D'  THEN 2
        WHEN 'D-' THEN 1
        WHEN 'F'  THEN 0
```
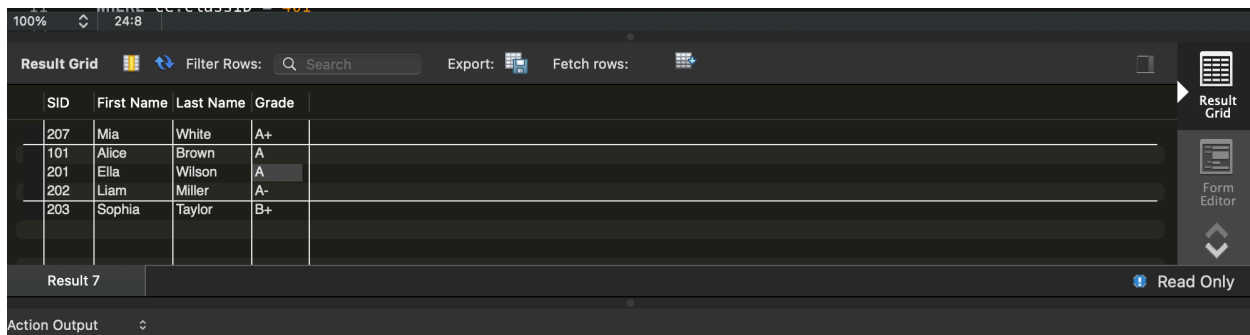
```
        ELSE -1
    END DESC
LIMIT 5;
```

This query selects the top five students from Class 401 by joining ClassEvaluation with the Student table to retrieve each student's first name, last name, and grade. It converts letter grades into numeric values using a CASE expression to ensure correct descending grade ordering. Finally, it returns only the five highest-ranked students based on that ordering.

Query 2

```
-- List faculties with the number of professors in them

SELECT
    f.facultyName AS `Faculty Name`,
    COUNT(p.profID) AS `No. of Professors`
FROM Professor p
JOIN Faculty f ON p.facultyID = f.facultyID
GROUP BY p.facultyID;
```

List faculties with the number of professors in them

Faculty Name	No. of Professo...
Faculty of Science	2
Faculty of Arts	1
Faculty of Technology	2

Result 7

Query 3

```
-- Select all classes the student is taking

SELECT
    ce.studentID AS `SID`,
    CONCAT(s.fName, " ", s.lName) AS `Student Full Name`,
    c.classID, c.scheduleDay, c.scheduleTime, ce.grade
FROM Class c
JOIN ClassEvaluation ce ON c.classID = ce.classID
JOIN Student s ON ce.studentID = s.studentID
WHERE ce.studentID = 101;
```

Select all classes that student with ID 101 is taking

SID	Student Full Name	classID	scheduleDay	scheduleTime	grade
101	Alice Brown	401	Monday	09:00	A

Result 6

Query 4

```
-- GPA Calculator for students

SELECT
```

```sql
    s.studentID AS `SID`,
    CONCAT(s.fName, " ", s.lName) AS `Student Name`,
    AVG(g.gpaValue) AS GPA
FROM (
  SELECT
    studentID,
    CASE grade
      WHEN 'A+' THEN 4.33
      WHEN 'A'  THEN 4.00
      WHEN 'A-' THEN 3.67
      WHEN 'B+' THEN 3.33
      WHEN 'B'  THEN 3.00
      WHEN 'B-' THEN 2.67
      WHEN 'C+' THEN 2.33
      WHEN 'C'  THEN 2.00
      WHEN 'C-' THEN 1.67
      WHEN 'D+' THEN 1.33
      WHEN 'D'  THEN 1.00
      WHEN 'D-' THEN 0.67
      WHEN 'F'  THEN 0.00
      ELSE NULL
    END AS gpaValue
  FROM ClassEvaluation
) g
JOIN Student s
  ON s.studentID = g.studentID
GROUP BY `SID`;
```

GPA calculator of all students

Written by Mykhailo Halushko, Nov 2025