A person in a black suit

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Views

1. **student\_marks\_summary View**

**Purpose:**  
To provide a consolidated view of each student’s marks for all courses, including continuous assessment (CA), final marks, eligibility, and grade.

**How it Works:**

* Joins the marks, student, and course tables.
* Pulls student identification (reg\_no), course details, CA marks, final marks, eligibility status, and grade.

**Key Rules / Outputs:**

* Displays ca\_marks and final\_marks for each student-course combination.
* Shows CA and final exam eligibility (Eligible, Not Eligible, MC, WH).
* Useful for generating student mark sheets or academic reports.

**2. semester\_pass\_fail View**

**Purpose:**  
To determine whether a student has passed or failed a semester based on grades and SGPA.

**How it Works:**

* Uses the result table joined with student.
* Checks for any MC (Medical Case) grades in the semester; if present, semester result is WH (Withheld).
* Otherwise, semester result is 'Pass' if SGPA ≥ 2, else 'Fail'.

**Key Rules / Outputs:**

* Flags WH if there are missing or incomplete course grades (MC).
* Assigns Pass or Fail based on semester GPA.
* Provides a quick overview of each student’s semester performance.

**3. student\_class View**

**Purpose:**  
To classify students based on CGPA and track their current academic standing (class).

**How it Works:**

* Joins result and student tables.
* Checks for any MC grades; if found, class is 'WH'.
* Otherwise, maps CGPA to class categories:
  + CGPA ≥ 3.7 → First Class
  + CGPA ≥ 3.3 → Second Class (Upper)
  + CGPA ≥ 3.0 → Second Class (Lower)
  + CGPA ≥ 2.0 → Pass
  + CGPA < 2.0 → Fail

**Key Rules / Outputs:**

* Always shows the **latest semester** for the student.
* Useful for awarding honors, reporting student class status, and monitoring academic progression.
* Handles edge cases where grades are withheld (WH).

Procedure: generate\_student\_academic\_report(IN p\_reg\_no VARCHAR(15))

**Purpose:**  
This stored procedure generates a comprehensive academic report for a given student, identified by their registration number (reg\_no). It consolidates student information, course-wise marks, semester results, and class standing in a single, easy-to-access procedure.

**Input Parameter:**

* p\_reg\_no (VARCHAR(15)) – The registration number of the student whose academic report is to be generated.

**Functionality / Steps:**

1. **Student Identification:**
   * Retrieves the student’s internal ID (user\_id) from the student table using the provided registration number.
   * If the student does not exist, a descriptive message is returned.
2. **Student Information:**
   * Displays basic details including registration number, batch, and department.
3. **Marks Summary:**
   * Retrieves course-wise marks, including CA marks, final marks, eligibility for CA and final exams, and grades, using the student\_marks\_summary view.
4. **Semester Result (Pass/Fail):**
   * Uses the semester\_pass\_fail view to show the student’s semester outcome (Pass, Fail, or WH).
5. **Class Standing:**
   * Uses the student\_class view to display the current CGPA and class category (First Class, Second Class Upper/Lower, Pass, Fail, or WH).

**Output:**

* Multiple result sets presenting:
  1. Student basic information
  2. Marks summary per course
  3. Semester pass/fail status
  4. Class standing

**Significance:**

* Automates the retrieval of a student’s academic performance.
* Reduces manual queries across multiple tables and views.
* Provides a clear, structured academic report that can be used for administrative or academic purposes

Example Usage:

CALL generate\_student\_academic\_report('TG/2023/1704');