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Daffodil International University

CSE-311 (63_L) Class Test-3

Time : 40 min, Marks : 15

Obtained Marks

Name :	ID :

1. Design a Trigger named **"grade_change_log"** that mainly occurs when you are updating a grade of a student. For instance if a student's grade is changing from "C" to "A" a trigger will save the data of the student's previous grade and new grade alongside the student's ***id*** in the **updated_grade** table as a log. Assume that the **updated_grade** table and **student_grade** table is already created.
student_grade: { std_id, course_id, grade}
updated_grade : { std_id, course_id, previous_grade, new_grade} **5 CO3**
NB: If there is no change in grade your trigger should not work.

CREATE TRIGGER grade_change_log
AFTER UPDATE ON student_grade
FOR EACH ROW
BEGIN
IF OLD.grade <> NEW.grade THEN
Insert the change log into the updated_grade table INSERT INTO updated_grade (std_id, course_id, previous_grade, new_grade) VALUES (OLD.std_id, OLD.course_id, OLD.grade, NEW.grade);
END IF;
END ;

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2. Create a stored procedure named **All_students_CGPA()** to calculate the CGPA of all the students from the **Student_grade** table. Output Format : std_id, CGPA.
CGPA_formula : $\sum(gpa * credit) / \sum(credit)$
Student_grade : {std_id, course_id, c_credit, grade} **5 CO3**

CREATE PROCEDURE *All_students_CGPA()*
BEGIN

SELECT std_id, SUM(c_credit * grade) / SUM(c_credit) FROM Student_grade Group By std_id;

END ;

3. Create a SQL view named **Avg_Result** that displays the average CGPA of students for each department using the given schema. In the Output it will display

dept_id	dept_name	avg(cgpa)

Department : { dept_id (PK), dept_name }
Students : { student_id (PK), student_name, dept_id (FK), Cgpa } **05**

CREATE VIEW Avg_Result AS
SELECT Department.dept_id, Department.dept_name, AVG(s.Cgpa) AS avg_cgpa
FROM Department
Left JOIN
Students
ON Department.dept_id = Students.dept_id
GROUP BY
Department.dept_id,